

TOWN OF ELLICOTTVILLE
STATEMENT OF FINDINGS AND DECISION
LIDLAW ENERGY GROUP INC.
BIOMASS COGENERATION AND LUMBER DRYING KILNS APPLICATIONS

Laidlaw Energy Group Inc. (“Laidlaw”) has applied to the Town of Ellicottville (the “Town”) and other governmental agencies for the necessary permits and approvals to construct and operate a new biomass cogeneration facility and lumber drying kilns in the Town of Ellicottville, as described herein. This document is the Statement of Findings and Decision issued by the Planning Board of the Town of Ellicottville (the “Planning Board” or the “Board”), pursuant to its responsibilities as the Lead Agency party under the State Environmental Quality Review Act (“SEQRA”), 6 N.Y.C.R.R. § 617.11(c), and represents the Planning Board’s findings under SEQRA, as well as the Planning Board’s decision under those provisions of the Town’s zoning statutes for which the Planning Board is the approving body. Specifically, the Planning Board is reviewing Laidlaw’s applications for the following Town permits:

1. Application for Site Plan approval for the biomass cogeneration facility and lumber drying kilns;
2. Application for a Special Use Permit for the lumber drying kilns.

The Planning Board has considered all necessary approvals in evaluating the environmental impacts for the projects, including the use and area variances that must be obtained from the Zoning Board of Appeals (“ZBA”). Thus, the Board’s SEQRA determination

is based on evaluating the cogeneration plant both as a new use, as well as a conversion from the vacated natural gas fired facility abandoned in 2003.

Decision and Determination

The remainder of this Decision explains in detail the reasons for the Planning Board's decision. In summary, considering the factors applicable under SEQRA, the DEIS, the FEIS, the draft FEISs submitted by Laidlaw, on its review of the entire record for the Project, the Zoning Code, the requirements for a Special Use Permit and a site plan, and for the reasons stated herein, the Planning Board determines that the balancing of social, economic, and environmental interests, and the balancing of the potential benefits, detriments, and environmental impacts on the community, require the denial of the cogeneration facility and approval of the lumber drying kilns.

Specifically, as to the cogeneration facility, the Planning Board further finds that the proposed action does not avoid or minimize adverse environmental impacts, even with the maximum mitigation practicable. Further, significant adverse environmental impacts will not be avoided or minimized, even by incorporating, to the maximum extent practicable, as conditions to the permit, those mitigation measures identified in this Decision and the FEIS. The Planning Board therefore selects the No Action Alternative under SEQRA for the cogeneration facility. It makes this determination based on consideration of the biomass facility both as a new use—as directed by the ZBA—and as a conversion of the discontinued natural gas fired plant. The application for the Site Plan, as it relates to the cogeneration facility, is denied.

As to the lumber drying kilns, the Planning Board finds that the proposed action avoids or minimizes adverse environmental impacts, with the mitigation measures described in

this Decision, to the maximum extent practicable. The application for the Special Use Permit is approved, with conditions as outlined herein. The application for the Site Plan, as it relates to the lumber drying kilns, is approved for the reasons stated herein.

I. PROJECT DESCRIPTION AND HISTORY

A. Site And Project Description

The project site is located at 6662 Route 219 North in the Town of Ellicottville, Cattaraugus County, New York. The site encompasses 16.5 acres of land. It is zoned Light Industrial/Service Commercial. Laidlaw has proposed to build a new biomass cogeneration plant utilizing wood chips in the buildings formerly used by a natural gas cogeneration plant, and to reopen the lumber dry kiln business. Laidlaw states its new biomass facility will be state of the art, although the proposed Wellons Fuel Cell boiler was built in 1981, and its “new” turbine is a fifty year old turbine retired by a Pennsylvania municipality and bought by Laidlaw from a second-hand dealer.

Laidlaw described the current site status in its August 2005 DEIS: “There are a number of existing buildings on the site, including the facilities for the cogeneration plant (power plant, kiln, stacker building, and storage buildings) which are currently unused and vacant.”¹ The ZBA, as described in the zoning section below, concurred with Laidlaw’s description of the site as vacant. The cogeneration facility was closed in December 2002 by the Trustee for the bank which seized the facility after Laidlaw defaulted on its bond payments. The Trustee closed

¹ DEIS § 3.6.2 at 24 (emphasis added). Laidlaw also described the facility as vacant in Section 4.8 of the DEIS, at 69.

the kilns early in 2003, and by October 2003, all employees had been terminated. No cogeneration or kiln activities have occurred since then.

Laidlaw also provided a description of the how the project site would look with the new improvements:

The project site contains eight buildings, including the power plant (boiler house) building, an office building, the original kiln building, a stacker building, two dry storage buildings, prefabricated SII kilns and a small building that houses a gas compressor. The kiln, the stacker building and the dry storage buildings, as well as the kilns, are used for hardwood kiln drying operation. Wood fuel will be stored in the existing 60' x 200' metal lumber storage building, located at the rear of the site. A new conveyor system to move the chips between the storage building and the power plant will be installed between the two existing structures. Additional equipment (bag filter, multi-cyclone, air preheater and economizer) will be located between the power plant building and the dry kilns. A new exhaust stack, approximately 4 ft. in diameter and 52.5 ft. in height, will be located behind this equipment on the east side of the powerhouse. An existing cooling tower, located behind the building as viewed from Route 219 (east side of the building) will remain in place, and a new cooling tower, approximately 24'(w) x 20'(l), will be installed on the west side adjacent to the powerhouse. This cooling tower, 20 ft. in height, will be shorter than the powerhouse building, which is approximately 29 ft. in height. A dumpster to receive the waste ash generated by the process will be located at the northwest corner of the power plant building.²

Fuel deliveries for the cogeneration plant would occur during normal business hours (Monday through Saturday between 7 a.m. and 6 p.m.). Fuel handling for the power plant operations would occur within the existing storage building. Filling the fuel delivery system is accomplished with a front end loader with a capacity of one ton per trip. The system uses

² Draft FEIS dated July 14, 2005, at § 3.2.

approximately 74 tons in an 8 hour shift, requiring approximately one bucket of chips from the loader every 6.5 minutes, so loader operation will be nearly continuous. The wood chip pile will be stored within the building, and fuel handling will occur within this building, which will be open at both ends.

The power plant will be staffed on a full time basis (7 days a week, 24 hours per day) by boiler technicians and fuel yard personnel. Laidlaw has stated that there will be two Boiler Technicians per shift staffing the operations of the boiler. One person is dedicated to the control room operations. The second operator is responsible for the ash, maintaining the water chemistry in the boiler, clearing any jams in the wood feed system, relief of the control room operator, clearing any jams in the ash system in the multi-cyclone and baghouse and other duties. Based on the need for nearly continuous operation of the front loader, there appears to be a need for a third staff person to continuously work the chip pile.

Maintenance will be ongoing for both the power plant and dry kilns. Both operations will have on-site maintenance availability during business hours, with 24/7 on-call service available from a licensed professional electrician. It is expected that a two week scheduled maintenance outage will occur once a year.

The hours of operation for the dry kiln will be Monday through Friday (7 a.m. to 4 p.m.). Dry kiln associated activities include receiving, stacking, moving, storing, and loading of pre-dried and dried lumber.

B. Project History

In March 1990, the Town approved construction of a natural gas fueled power plant and lumber drying kilns, which utilized waste heat from the power plant. Shortly after

approval, the Town changed its zoning code, and the cogeneration portion of the facility was treated as a non-conforming use for the rest of its existence. The power plant portion of the project was known as Ellicottville Energy and the lumber drying kilns as Quality Lumber Services. Laidlaw purchased the facility in late 1999.

From the completion of site construction in July 1991 until December 2002, the facility operated as a combined cycle cogeneration plant, with a 3 megawatt (MW) Allison 501KB combustion (natural gas) turbine generator, operating in tandem with a 2 MW Westinghouse steam turbine generator. This facility exported approximately 4 MW of electrical output to the Niagara Mohawk power grid pursuant to a power purchase agreement that remains in effect until July of 2021.

From shortly after construction until early 2003, Quality Lumber Services operated a custom hardwood lumber drying kiln. This operation utilized the excess heat from the power generation process to kiln dry various varieties and grades of hardwood for local area mills, concentration yards, and end users such as furniture manufacturers. Exhaust gases from the gas turbine were used to dry lumber after passing through a heat recovery boiler. According to Laidlaw's submissions to the ZBA, Quality Lumber produced significant revenue and income, and qualifies as a principal use of the property under the Zoning Code.

The prior owner, without obtaining any permits from the Town, constructed a pilot gasification project (activated carbon plant or ACP) on site in direct violation of the zoning and building ordinances then (and still) in effect. That project included an approximately 60 foot tall exhaust stack. The project failed, but while it was operating, unused process gas was burned off at the top of the stack, resulting in a visible flare. The exhaust stack was eventually removed

from the site, prior to Laidlaw's purchase of the facility. Because the unapproved exhaust stack was taller than the exhaust stack now proposed by Laidlaw for the biomass plant, the Applicant has suggested that the prior stack sets a precedent for the proposed stack. However, the prior stack was never approved by the Town, was a violation of zoning standard in effect at that time, and cannot serve as a precedent for the proposed use of the site.

Laidlaw experienced financial problems after purchasing the project, but falsely stated in the DEIS what happened. In the DEIS Laidlaw says that in December 2002, the power plant and Quality Lumber services reduced operations due to the sharp increase in natural gas prices. According to Laidlaw's DEIS, "Laidlaw Energy sold the facility, but the new owners fared no better and were forced to curtail operations in early 2003."³

In fact, Laidlaw never sold the plant; the statement in the DEIS is pure fabrication. In July 2002, State Street Bank, the trustee for the project bondholders, citing numerous defaults, moved to take control of the facility. On August 29, 2002, a receiver was appointed to take control of the cogeneration and drying kilns facility. On January 7, 2003, the receiver shut down the facility because of the "need to perform substantial repairs to the turbine and the rising cost of natural gas." Quality Lumber Services continued operating until it had fulfilled its existing orders and delivered the stock that was stored on site. By October 31, 2003, the receiver reported that there were no current employees. Laidlaw regained control of the property in August 2004. Since that time, no electricity has been generated or wood dried or sold, and the turbine was disassembled and put in storage. The facility remains closed.

³ DEIS § 1.2, at 5.

C. Application History

Laidlaw submitted applications for special use permit and site plan review for the project to the Town of Ellicottville Planning Board in November 2004. The initial submission also required height variances for the power house and exhaust stack. The applicant amended the plan to reduce visual impacts, however, and now proposes to place the boiler inside an existing building within a new 15 foot deep basement. So, a height variance for the power house is no longer necessary, although a height variance will still be necessary for the exhaust stack.

The Town of Ellicottville Planning Board established itself as Lead Agency, conducted a Coordinated Review, and issued a Positive Declaration on February 28, 2005. A Public Scoping Session was held on May 2, 2005, and a final scope was issued by the Lead Agency on June 6, 2005. The Applicant first submitted a DEIS to the Town on July 11, 2005. After discussions with the Town and a meeting with the Planning Board, a revised DEIS was submitted, dated August 11, 2005. This DEIS was subsequently accepted as complete on August 22, 2005, and made available for public review. A public hearing on the DEIS was held on October 3, 2005, with public comments accepted through October 17, 2005.

Unbeknownst to the Town, on August 2, 2005, Laidlaw submitted an application to NYSDEC to modify the existing Title V Permit. The modification was required because the heat input for the proposed Wellons fuel cell boiler increased from 98 mmBtu/hr to 115 mmBtu/hr, which inherently increased the potential air emissions from the unit. The increased potential air emissions required that the Title V Air Permit be modified, rather than Laidlaw obtaining an Air State Facility (ASF) permit. Thus, the DEIS submitted August 11th deliberately understated the environmental impacts, particularly with respect to air emissions.

At the August 11, 2005 Planning Board meeting, Michael Bartoszek of Laidlaw compounded the deception by telling the Planning Board that an ASF permit was all that was required, failing to tell the Board about the errors in the DEIS. Not until an October 14, 2005 letter from Steven J. Doleski, Regional Permit Administrator of the NYS Department of Environmental Conservation (DEC), did the Planning Board learn that it accepted and held a public hearing on a deficient document.⁴ Unfortunately, this mendacious attitude and reluctance to cooperate was the distinguishing feature of Laidlaw's performance in the application review procedure; even when under court order to turn over information, Laidlaw was late and incomplete in doing so.

At their meeting of November 28, 2005, the Planning Board considered the extensive comments that were received on the DEIS. Following the Board's deliberation, on December 1, 2005, the Board sent a letter requesting additional information and asking the applicant to respond in the form of a pre-draft FEIS. At the November 28, 2005 meeting the Applicant indicated that it would comply.

Typically, an FEIS is provided within 45 calendar days after the close of the public hearing, but in accordance with 617.9(5)(ii), that period may be extended if it is determined that additional time is necessary to prepare the statement. The Town and the Applicant mutually agreed to extend time frames to permit the Applicant to respond to

⁴ During an October 25, 2005 conference call Mr. Bartoszek claimed one of his consultants told a Town consultant about the permit change, but the Town consultant (John Busse), in writing, refuted that assertion. Mr. Bartoszek's comment missed the point; it was the level of air impacts to the Ellicottville community that was understated by a significant margin, ranging from 15 to 20%, regardless of what state or federal permit was needed. And it was Mr. Bartoszek himself who told the Board on August 11th only an ASF permit was needed.

numerous, complex comments received on the DEIS.⁵ That extension remained in effect throughout the SEQRA process.

Despite Laidlaw's promise, after the issuance of the December 1, 2005 letter, a significant amount of time passed during which Laidlaw had no contact with the Town. In order to facilitate the Planning Board's review of the project in a timely manner, the Town sent the Applicant a letter in May 2006, advising it of the provisions of Section 6-7, Abandoned Application, and Section 7-8, Abandoned Application, of the Town of Ellicottville Zoning Ordinance. These sections, which pertain to applications for Special Use Permit and Site Plan review, respectively, state: "An application will be deemed abandoned and will be denied if there is no activity by the applicant on the application within six months of the initial application date or from the date that additional information is requested by the Planning Board, whichever is later." The letter further advised the Applicant that the six month period was rapidly approaching.

The Applicant finally contacted the Town to advise that a pre-draft FEIS would be submitted. It was received on July 17, 2006. Although Laidlaw missed the six month deadline, the Planning Board reviewed this document and determined that it provided little of the additional information requested in the December 1, 2005 letter. Further, the draft indicated many differences in the project proposal with the DEIS, including an increase in, as well as contradictory information on, the air emissions from the proposed new facility. In particular,

⁵ Letter of Drew Reilly dated June 8, 2006.

Laidlaw admitted for the first time in this draft FEIS significantly higher emissions of hazardous pollutants referenced in Mr. Doleski's letter.

By letter dated October 16, 2006, the Town's special counsel presented the Applicant with the consolidated comments of Town officials related to the modifications to be addressed in the revised draft FEIS.

The Applicant submitted a revised draft FEIS, dated December 18, 2006, which was distributed to the Planning Board members at their meeting on that date, but did not include responses to the October 16, 2006 letter, which Laidlaw provided under separate cover. The Planning Board reviewed the draft FEIS at its meeting of January 29, 2007, which was attended by Laidlaw representatives, attorney, and consultants. During this meeting, Laidlaw provided clarification of some aspects of the project and promised to provide other information. Following the discussion, it was apparent that Laidlaw—having already caused significant delays in the process—would not prepare a draft FEIS (including a responsiveness summary) in a manner that would allow the Planning Board to complete its SEQRA responsibilities. Therefore, the Board directed staff to revise the document to meet the SEQRA requirements; the timing of such completion was dependent on Laidlaw providing the additional clarification and information it promised would be forthcoming.

Not until April 27, 2007 did Laidlaw provide a partial response. Another partial response was received on July 19, 2007, but Laidlaw never answered all of the questions, despite repeated promises to do so. The July 2007 response was part of a settlement of an Article 78 proceeding Laidlaw filed against the Planning Board, claiming that the Board was unduly delaying the issuance of the FEIS, despite the tolling agreement, notwithstanding that the

Applicant had submitted two significantly deficient draft FEISs, and even though it still had not supplied promised answers. The Planning Board issued its FEIS on September 24, 2007. That same evening it held a public hearing on the special use permit and site plan applications. Laidlaw was invited to make a presentation at the hearing to the Board and the public, but declined to do so.

D. Zoning Status

Laidlaw originally submitted special use permit applications for the cogeneration facility and the kilns, as well as a site plan modification for what it described as a conversion of fuel source for its power plant. Laidlaw had previously obtained a special use permit for new dry kilns in 2000. Although that permit has expired due to the abandonment of the use, lumber drying kilns remain a use allowable in the LI/SC zone with a special use permit. As part of the 2000 kiln permit, Laidlaw was required to install a berm and landscaping, but it never put in the landscaping. As noted above, the cogeneration facility had been treated as a non-conforming use since shortly after its construction.

Under the Town's Zoning Ordinance, the Planning Board is charged with determining what uses are allowed in any particular zone. Because of this responsibility, the numerous changes in the project not detailed in the DEIS, and because the facility was closed when the application was filed, the Town retained special counsel to determine which permits and approvals the Laidlaw facility required. On October 9, 2006 the Town's special counsel issued an opinion which contained five determinations:

1. The power generating facility is vacant and abandoned, and since it was therefore no longer a legal non-conforming use, it required a use variance. This is supported by the Zoning Code, which specifically prohibits utility generating equipment in the LI/SC zone.

2. The conveyor belt, cooling tower, and exhaust stack being added to serve the power plant require use variances as an expansion of the non-conforming use, whether or not the generating facility itself had been abandoned.

3. The power generating facility needs noise and smoke use variances, pursuant to Town Zoning Code Section 3-8(C)(1) [the LI-SC performance standards of the zoning ordinance, because the proposal does not comply with the smoke and noise standards].

4. The kiln-drying facility requires a special use permit.

5. Site plan approval from the Planning Board is required for both the biomass plant and the drying kilns.

This opinion required the applicant to apply for the stated use variances; instead Laidlaw appealed this determination to the ZBA. After a public hearing and substantial written and verbal testimony, the ZBA upheld the opinion of the Town's special counsel on all points of the appeal. Laidlaw then filed an Article 78 proceeding against the ZBA, which is ongoing as of the date of this Decision. Laidlaw has still not applied for the use variances, but the environmental impacts of the new biomass cogeneration facility were evaluated by the Planning Board.

Pursuant to the requirements of General Municipal Law § 239-m, the Laidlaw applications were submitted to the Cattaraugus County Planning Board for review and

recommendation. On September 27, 2007, that Board issued its determination that (1) the lumber drying kilns were not of regional significance, and therefore it made no comment on the special use permit and (2) under the operation of General Municipal Law § 239-m, because the County Planning Board did not recommend for or against either approval, the Planning Board is not required to have a supermajority vote on either application.

II. IMPACTS FROM AIR EMISSIONS

No aspect of the proposed project is of greater concern than the potential air emissions from the new Biomass Cogeneration Plant. The lumber drying kilns portion of the Project does not present any air impacts of consequence. But the Biomass facility will produce serious increases in harmful emissions, and, whether compared to the currently vacant use of the site or even compared to the long-disused natural gas fired plant, the air emissions present an unavoidable and unacceptable adverse impact.

Although Laidlaw touts this project as a clean energy alternative, wood burning is hardly “clean,” and Laidlaw’s analysis is tainted by focusing (often inaccurately) on the positive aspects and ignoring the sizable negatives of the biomass plant. On one point the Board and Laidlaw are united, however: in the DEIS, Laidlaw describes air emissions as unavoidable adverse impacts.⁶ The question for the Planning Board is whether those impacts are acceptable.

⁶ DEIS, § 7.0, at 89.

A. The Role Of the Title V And Other Air Permits

In its submissions to the Town, Laidlaw has focused not on the air impacts of its project on the community, but rather on whether or not the emissions would result in air contaminants in excess of federal and state standards. Laidlaw asserts that since the Project is predicted to meet the National Ambient Air Quality Standards and therefore is eligible for permits by the Environmental Protection Agency (EPA) and DEC, that the Project meets all relevant criteria for approval.

Laidlaw's myopic focus on compliance with state and federal permits issued under the Clean Air Act presents an incomplete picture, for neither the federal nor state agencies pre-empt local evaluation of air impacts. In fact, the Clean Air Act contains an express disavowal of preemption over local land use decisions.⁷ Similarly, New York courts have ruled that local municipalities are co-equal jurisdictions with the DEC, and are not bound by determinations of that agency, nor required to issue a permit simply because the DEC would do so. In its review, the Planning Board has focused on the project's impact on the Ellicottville community, as well as regional and statewide concerns.

B. Methodology

The Board has been hindered in its ability to reach a conclusion on air emissions by the refusal of Laidlaw to cooperate despite numerous promises to do so, and, in the case of the DEIS, the outright submission by Laidlaw of an inaccurate document significantly understating

⁷ Clean Air Act, § 131, 42 USCS § 7431, 104 Stat 2689, § 805 (“Land use authority: Nothing in this Act constitutes an infringement on the existing authority of counties and cities to plan or control land use, and nothing in this Act provides or transfers authority over such land use.”).

air emissions. Further, Laidlaw makes some its comparisons to coal-fired plants, when the prior plant in Ellicottville was gas-fired. Laidlaw's own statements were even contradictory: its representatives asserted to the Town that certain nitrogen oxide control technology was unfeasible, while at the same time they were touting the very same technology to the Commonwealth of Massachusetts in order to qualify to sell Renewable Energy Credits there.

The Board has, nevertheless, made its determinations as to the impact on the community from air emissions based on the data provided by Laidlaw, the Town's experts, or from standard sources such as the EPA and DEC websites. For instance, the dispersion modeling analysis conducted to evaluate the ambient air quality impacts of the proposed project was conducted consistent with the procedures established in the EPA and NYS DEC guidance documents. This analysis is based on the application of the EPA and NYS DEC approved SCREEN3 model, which over-predicts or overestimates air quality impacts. The modeled impacts were also added to background concentrations to determine total air quality impacts. As approved by NYS DEC for this specific project, and commonly accepted by EPA and other state agencies, the background concentrations were taken from established NYS DEC monitoring stations located in areas of the state with greater levels of industrial, commercial, residential, and traffic-related emissions.

For this project, ambient air quality background data from monitoring stations in Buffalo and Jamestown were used. It is entirely reasonable to assume that the ambient air in Buffalo and Jamestown—two more industrialized and developed areas with denser populations and more traffic—have higher background concentrations of all pollutants than the ambient air in the Ellicottville area. Therefore, the total ambient air quality impacts determined during the air

dispersion modeling analysis for this project are conservative, in that they would be lower if Ellicottville background ambient air concentrations were used.

It is believed that the air quality in Ellicottville is better than that in Buffalo and Jamestown, which the Applicant has tacitly acknowledged by stating that the two areas used for comparison are more industrialized, have denser populations, and generate more traffic. It is recognized that the dispersion analysis conforms with statutory guidelines; however, the comparison is to areas with a greater degradation in air quality than Ellicottville, and thus any degradation of Ellicottville's air quality will have a larger impact than a similar amount of emissions would have in these more industrialized areas. Therefore, the potential degradation of the quality of the air is a significant impact in the Town.

The concern about air emissions involves nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), total particulate matter and particulate matter less than 10 microns and 2.5 microns in diameter (PM/PM₁₀/PM_{2.5}), carbon dioxide (CO₂), and certain Hazardous Air Pollutant (HAPs) identified by Laidlaw as potential emissions from the Biomass Plant. In each case, except as outlined in the discussion for carbon dioxide, the Board's determination has been based on the level of pollutants identified by Laidlaw.

C. Nitrogen Oxides

Nitrogen and oxygen are contained in the air used to support fuel combustion. These elements react under high temperature conditions to form NO_x (so-called thermal NO_x). NO_x may also be formed by the oxidation of nitrogen contained in the fuel itself (so-called fuel NO_x). Although Laidlaw would employ highly efficient, low emissions combustion control

technology, coupled with flue gas recirculation (FGR), to minimize the formation of NO_x, there will still be significant emissions of NO_x.

Add-on control technologies have been developed to further reduce NO_x emissions from a variety of combustion systems, but as explained in the FEIS, not all technologies are suitable to or feasible additions for all systems. According to Laidlaw, neither Selective Catalytic Reduction (SCR) systems, which use a precious metal catalyst in the presence of ammonia to reduce NO_x contained in the combustion system exhaust to nitrogen and water, nor Selective Noncatalytic Reduction Systems (SNCR) systems, which operate using the same general principle as SCR systems, are feasible or would result in meaningful NO_x reductions.

For example, the proposed biomass combustion system, which was built in 1981 and which is being relocated from a prior installation in Bakersfield, California, is reported by Laidlaw to be of a package design that was not intended to incorporate SNCR. Such packaged systems are difficult to modify to allow the introduction of properly functioning, reliable SNCR systems and Laidlaw states that given the design and operating constraints imposed by the pre-constructed package system design, there are considerable reliability and functionality concerns that make it technically infeasible to implement a SNCR system that would result in meaningful NO_x emissions reductions.

Laidlaw anticipates that NO_x emissions from the Project will be controlled to 0.22 pounds per million Btu (lbs/MMBtu) of heat input or less during all conditions, resulting in a maximum mass emission rate of 25 pounds per hour under maximum load conditions. Annual potential emissions will be approximately 111 tons per year assuming continuous maximum load operation of the combustion system. Present site activities result in essentially no NO_x

emissions and actual NOx emissions from the gas turbine combustion system previously at the same site averaged approximately 55 tons per year.

D. Sulfur Dioxide

Sulfur Dioxide (SO₂) is formed by the reaction of sulfur found in fuel with oxygen from the combustion air. Therefore, the SO₂ emissions are dependent on the sulfur content of the fuel being used. As wood contains very low quantities of sulfur (typically 0.1% or less), SO₂ emissions from wood combustion systems are inherently low. Due to the low SO₂ emissions, wood combustion systems are not required to install flue gas desulphurization (FGD) systems such as wet scrubbers or dry sorbent injection used on coal fired boilers. The efficiency of FGD systems has been shown to drop significantly with reduced SO₂ loading, as low as only 10% or less at the SO₂ emission rate anticipated for the Project.

Based on emission factors developed by the EPA, it is anticipated that SO₂ emissions from the project will be less than 0.025 lbs/MMBtu, 2.45 pounds per hour, and 9 tons per year. Present site activities result in essentially no SO₂ emissions and actual SO₂ emissions from the gas turbine combustion system previously operating at the same site averaged approximately 90 pounds per year. Thus, even seen as a fuel conversion project, the biomass plant will increase SO₂ emissions, an almost inconceivable 20,000% increase in this dangerous pollutant.

E. Particulate Matter (PM)

The EPA says that “Particulate matter is composed of small solid and liquid particles suspended in the ambient air, and research studies have associated exposure to elevated

levels of these particles in the air with damaging health effects.”⁸ The Town accepts Laidlaw’s claim that it has reduced PM as much as possible, but based on the emissions that will still occur, use of biomass as a fuel source will introduce unacceptable levels of particulate matter into the air.

The combustion air supply design of the Wellons Fuel Cell both minimizes particulate entrainment in the exhaust and promotes high carbon burnout of the fuel. Only a small portion of the total combustion air is introduced below the grate that supports the fuel pile within the combustor. This design reduces turbulence in the lower region of the furnace and minimizes particle entrainment in the exhaust. Secondary and tertiary air injections serve to maximize carbon burnout of entrained particles and reduce particulate emissions. The Project will also employ a high efficiency fabric filtration system on the exhaust from the combustion system to further reduce particulate emissions. The fabric filter system will achieve greater than 99% removal of any ash or unburned particles entrained in the system exhaust. The maximum PM emission rate will be approximately 0.01 lbs/MMBtu and 1 pound per hour or less, resulting in annual emissions of approximately 4 tons per year. The combustion system design and combined use of a fabric filter resulting in particulate emissions of 0.01 lbs/MMBtu meets or exceeds the level of control deemed to meet BACT for other previously permitted similar projects.

⁸ EPA website at <http://www.epa.gov/pmresearch/>. Specifically, the EPA states “Several studies show associations between PM and premature death from cardiopulmonary causes. PM has also been linked to hospitalization for respiratory or cardiovascular diseases and exacerbation of respiratory diseases or decreases in lung function or lung growth.” See http://es.epa.gov/ncer/events/news/2005/11_17_05_feature.html.

F. Carbon Monoxide (CO) And Volatile Organic Compounds (VOCs)

Incomplete combustion of fuel within the combustion system will result in the formation and emission of CO and VOCs. The EPA states that “Carbon monoxide, or CO, is a colorless, odorless gas that is formed when carbon in fuel is not burned completely,” and can cause harmful health effects by reducing oxygen delivery to the body’s organs (like the heart and brain) and tissues.⁹ Carbon monoxide, VOCs, and NOx are major contributors to the formation of ground-level ozone in smog. “Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level ozone also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue.”¹⁰ Ground-level ozone is especially a problem in areas like Ellicottville where the terrain creates pollutant-trapping inversion layers.

Due to the high combustion efficiency achieved by the combustion air design of the Wellons Fuel Cell system, the products of incomplete combustion will be greatly minimized. The only add-on control technologies that are available to reduce CO and VOC emissions are thermal or catalytic oxidation. Laidlaw reports that neither of these has ever been applied to a wood fired combustion system of this type.¹¹ The Board accepts this limitation and has made its decision based on emissions predictions given by Laidlaw.

⁹ EPA website at <http://www.epa.gov/air/urbanair/co/hlth1.html>.

¹⁰ EPA website at <http://www.epa.gov/air/ozonepollution/basic.html>.

¹¹ As stated in the FEIS, the problem is the alkali constituents of the wood act as poisons to catalyst systems rendering them ineffective. Thermal oxidation would require the installation of a gas-fired, secondary

Footnotes continued on next page.

The CO and VOC emission rates will be maintained at less than 25 and 4.2 pounds per hour, respectively. These emission rates result in maximum potential CO and VOC emissions of 111 and 18 tons per year, respectively. Present site activities result in essentially no CO or VOC emissions, and actual CO emissions from the gas turbine combustion system previously operating at the same site averaged approximately 14 tons per year, so a significant increase would occur.

The Board finds there is no reason to accept these high levels of pollutants that derive from the biomass plant. The increase in CO from 14 to 111 tons demonstrates the dangerous nature of the wood fuel source and refutes Laidlaw's claim of a clean energy facility.

G. Hazardous Air Pollutants

In addition to the criteria pollutants discussed above, the Project has the potential to emit air contaminants that are classified by EPA as Hazardous Air Pollutants (HAPs). Because the Project's HAP emissions fall below the minimum regulatory thresholds established by EPA, the Project is not subject to HAP emissions regulations. But HAPs are substances that are known or suspected to cause serious health problems such as cancer, and the fact that the anticipated emissions here do not exceed EPA levels does not mean they do not present a danger to the community.

HAP emissions are minimized by the combustion air system design and controls discussed above for CO and VOCs. The discussion of add-on control systems regarding CO and

Footnotes continued from previous page.

combustion chamber, which is both cost-prohibitive and would result in additional emissions from gas combustion.

VOC emissions also applies to organic HAPs, and the Planning Board has relied upon Laidlaw's modeling to judge the levels of HAPs. Potential HAP emissions were determined by applying emissions factors developed by EPA based on actual emissions test data from a wide variety of facilities. Total potential HAP emissions from the Project are estimated at approximately 19 tons per year and the potential emission rates of most individual HAP contaminants are less than one ton per year, although the potential emission rate for hydrogen chloride is estimated to be 9.57 tons per year, just under the level requiring further EPA regulation. As an example of the dangers presented, hydrogen chloride is a colorless, poisonous gas with an unpleasant, acrid odor.

According to the July 14, 2005 pre-draft FEIS submittal by Laidlaw, slightly over 19 tons of HAPs will produced. By comparison, the current rate is zero, and the natural gas operations produced minimal HAP emissions. The HAP emissions demonstrate conclusively that while biomass may be renewable, it is not clean, and the community would be significantly harmed if the biomass plant was built.

H. Acid Rain Impact

Laidlaw has insisted in its submissions that statewide benefits such as compliance with the Renewable Energy Portfolio goals be considered, yet ignores regional or statewide environmental impacts. One of those impacts is the increase in acid rain—a major environmental problem in New York—that would result from this plant. Even compared to the long-abandoned gas fired plant, the biomass plant would increase nitrogen oxides by over 100% (from 55 tons to 111 tons) and sulfur dioxides an astounding 20,000% (90 pounds to 18,000

pounds). The Board finds the biomass plant presents an unacceptable environmental hazard because of its potential effect on acid rain.

According to the EPA website:

Acid rain causes acidification of lakes and streams and contributes to the damage of trees at high elevations (for example, red spruce trees above 2,000 feet) and many sensitive forest soils. In addition, acid rain accelerates the decay of building materials and paints, including irreplaceable buildings, statues, and sculptures that are part of our nation's cultural heritage. Prior to falling to the earth, sulfur dioxide (SO₂) and nitrogen oxide (NO_x) gases and their particulate matter derivatives—sulfates and nitrates—contribute to visibility degradation and harm public health.¹²

New York State has been especially hard hit, and Laidlaw's facility would contribute to the problem. According to the DEC website, the harms from projects like Laidlaw's that increase sulfur dioxide (SO₂) and nitrogen oxide (NO_x) emissions gases, and thus acid rain, are substantial:

Aquatic - Fish populations are damaged in a number of ways. Acidic water disrupts their reproductive cycle. It also leaches aluminum from the soil into the water, clogging the fish's gills and altering their blood chemistry. As a lake becomes acidified, one species after another disappears. In addition to sensitive lakes, the Adirondack region includes thousands of miles of streams and rivers also sensitive to acidic deposition. Over half of these may become acidic during spring snowmelt.

Forests - Sulfur and nitrogen deposition have caused adverse impacts on certain highly sensitive forest ecosystems, most notably the high-elevation, spruce-fir forests in the eastern United States. Forests are damaged because acid precipitation drains nutrients from the soil. Excess nitrogen in the air also may adversely affect

¹² EPA website at <http://www.epa.gov/acidrain/effects/index.html>.

tree growth. Evidence of decreased growth and dieback has been found in the Adirondacks already.

Visibility - Dry acidic particles in the air lessen visibility. When winds blow from the southwest at Whiteface Mountain in the Adirondacks, visibility can be reduced from 50 miles to fewer than 5 miles.

Materials - For materials and cultural resources, dry deposition (the deposition of particles and gases between rain events) is now considered to be more damaging to stone than wet deposition (the deposition of particles and gases during rain events).

Human Health - High concentrations of fine-particulate sulfate and nitrate can enter the cardiovascular and respiratory systems, resulting in disease or even death.

Metals such as mercury and cadmium from soil deposits in lakes, streams, and reservoirs can accumulate in the tissues of fish, making them toxic to humans.

Metals also can be leached from the soil into reservoirs, or from old lead and copper pipes directly into home water supplies, causing serious illness.¹³

The best course is to reject facilities that make the problem worse. As noted on the DEC web site:

Based on the best available computer model projections, and assuming full implementation of the 1990 Clean Air Act amendment on reductions in sulfur emissions, the number of acidic waters in the Adirondacks is predicted to increase rather than decrease. In other words, even with the reductions achieved under the Clean Air Act, the problem of acidic deposition in the Adirondacks will continue to worsen.

Significant additional reductions in both nitrate and sulfate deposition are needed to stabilize the acidic deposition problem in the Adirondacks. Just to return the quality of water in the Adirondacks to 1984 levels-during which time approximately 19 percent of the water was acidic already-reductions of nitrogen

¹³ DEC website at <http://www.dec.ny.gov/chemical/8418.html>.

oxides and sulfur dioxide must be reduced by an additional 40 to 50 percent over current requirements. The EPA admits that without such additional reductions, the percentage of acidic lakes, streams and rivers in the Adirondacks will roughly double by the year 2040, a strong indication that aggressive action is necessary now.¹⁴

In light of the significant increases in the precursor of acid rain that would result if the biomass plant was built, the Board believes the only reasonable course of action is to reject the biomass plant.

I. Greenhouse Gases and Carbon Dioxide Neutrality

The main greenhouse gas issue with a biomass plant is the release of carbon dioxide. Burning wood actually releases more carbon dioxide than burning coal, but biomass is considered carbon neutral because, in theory, the carbon dioxide released is then taken up again by the plants grown as the next round of biomass fuel. In reality, the issue of carbon neutrality is far more complicated, and while biomass plants can be carbon neutral, the Laidlaw proposal is neither carbon neutral when viewed locally or regionally, because the Laidlaw proposal is not coupled with a sustainable agricultural management program. **Laidlaw specifically rejected the Planning Board's efforts to link the project to such a program, a proposed hybrid willow farm, stating "the growing of willow trees as a biomass fuel source is not and never has been" part of this project.**¹⁵ The Planning Board has accepted Laidlaw's position—meaning there is no specific crop management or energy plantation associated with this project.

A leading authority on carbon issues exposes the flaws in Laidlaw's plan:

¹⁴ DEC website at <http://www.dec.ny.gov/chemical/8418.html> (emphasis added).

¹⁵ Laidlaw letter of April 27, 2007, at 3.

Although burning wood emits more carbon dioxide than combustion of any other fuel, if new trees are planted immediately, all the carbon dioxide emitted is drawn back out of the atmosphere by their respiration as they grow. Accordingly, a wood economy kept in a steady state is carbon-neutral, but one in which wood is being depleted results in large net carbon dioxide emissions.¹⁶

In Laidlaw's case there is no back end, no plan for sustainable crops to absorb the emissions. Even proponents of wood burning reject Laidlaw's approach. For example, the Biomass Energy Resource Center states "wood-burning recycles carbon that was already in the natural carbon cycle. The result is that no new CO₂ is added to the atmosphere as long as the forests from which the wood came are sustainably managed."¹⁷

Laidlaw presents a fairly simple view: carbon released by burning is taken up again by plant life—a process known as sequestration—and thus the cycle equals zero emissions. But what if the rate of emission is not equal to the rate of sequestration? When the releases equal the sequestration, you have the carbon neutrality Laidlaw claims. But whether it is achieved depends on a lot of factors, as described by the EPA:

In terms of its global warming impact, one unit of CO₂ released from a car's tailpipe has the same effect as one unit of CO₂ released from a burning forest. Likewise, CO₂ removed from the atmosphere through tree planting can have the same benefit as avoiding an equivalent amount of CO₂ released from a power plant. However, the climate benefits of sequestration practices can be partially or completely reversed because terrestrial carbon can be released back to the atmosphere through decay or disturbances.

¹⁶ William Sweet, *Kicking the Carbon Habit*, at 214 n. 27. Sweet's book notes that the leading expert on carbon issues, Kirk R. Smith, questions the carbon neutrality of biomass in projects like Laidlaw's, because even if regeneration of crops is 100 percent, when combustion inefficiencies and all the by-products are taken into account, a switch to natural gas may result in lower greenhouse gases emissions per unit of energy produced and consumed. *Id.* at 217 n. 20.

¹⁷ <http://www.biomasscenter.org/information/climate-change.html>.

Trees that sequester carbon are subject to natural disturbances and harvests, which could suddenly or gradually release the carbon back to the atmosphere. And if carbon sequestration practices in agriculture, such as reduced tillage, are abandoned or interrupted, most or all of the accumulated carbon can be quickly released. Some sequestration practices, like tree planting and improved soil management, also reach a point where additional carbon accumulation is no longer possible. For example, mature forests will not sequester additional carbon after the trees have fully grown. At this point, however, the mature trees or practices still need to be sustained to maintain the level of accumulated carbon. Addressing the issues of reversibility (or duration) and carbon saturation is important if sequestration benefits are to be compared to other greenhouse gas reductions.¹⁸

The underlined passage above is especially important. Laidlaw is not planting new trees to take up the carbon. It is burning the dead or trimmed mature trees, meaning the fuel source will not absorb the carbon released in equal portions.

Laidlaw's efforts may have other negative effects, as "the removal of crop or trace residues for energy production could gradually cause soil degradation (lowering of the soil organic content) and encourage soil erosion or leaching of synthetic fertilizers."¹⁹ Fertilizers are especially a problem because they are nitrogen based and a significant source of nitrogen-based greenhouse gases.

Also, proponents for sustainable biomass plants note the importance of local fuel sources.²⁰ Here, where the travel routes are up to 100 miles, the carbon dioxide released by the

¹⁸ EPA website at <http://www.epa.gov/sequestration/faq.html> (emphasis added).

¹⁹ OECD, Environmental Impacts of Renewable Energy, at 9.

²⁰ World Resources Institute, The Greenhouse Gas Protocol: The Land Use, Land-Use Change, and Forestry Guidance for GHG Project Accounting (Discussing secondary effects which can invalidate the value of projects, including the "products of the project activity (downstream), such as mobile combustion emissions from transporting harvest fiber to the mill.").

transporting trucks unbalances the equation, even if the facility were otherwise carbon neutral. Conservatively estimating that each truckload will come from an average distance of 50 miles away, it is expected each truck delivering chips will travel 100 miles roundtrip per delivery. Using an average fuel economy of 5 miles per gallon of diesel fuel, each delivery of chips would require the burning of 20 gallons of diesel fuel. Based on EPA estimates,²¹ the carbon dioxide emissions from bringing fuel to the plant will be approximately 450 pounds of carbon dioxide emissions per delivery, or a total of 1,890,000 pounds per year. Some of this will occur in Ellicottville, and all will occur in the region. Thus, Laidlaw's project is not carbon neutral on a regional level, and because it will concentrate in Ellicottville carbon sequestered over a large area, it is not neutral on a local level.

Laidlaw's effort to prove carbon neutrality, largely stated in its July 19, 2007 letter, is based on false premises. Studies are either not identified or misrepresented. For example, the SUNY study identified was based on the biomass plant coupled with a willow biomass crop—the exact situation Laidlaw has rejected.

Biomass plants can be carbon neutral, but the Laidlaw proposal is not because (1) it does not provide for sustainable fuel source management, (2) the concentrations in the Ellicottville area of carbon dioxide originally sequestered in a 100 mile radius does not equal emissions, (3) it fails to consider impacts of transporting the fuel source over such a large area, and (4) it relies on tree limbs and utility trimmings with questionable carbon sequestration abilities, rather than the growing of young plants as required for a truly neutral project.

²¹ EPA, Emission Facts: Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel.

J. Other Laidlaw Misstatements

During the review process Laidlaw made a number of claims about air emissions, most of which are addressed above. So, there is no doubt the Board considered all of Laidlaw's allegations, the Board notes as follows:

1. At several points (for example in a letter to the Village Mayor) Laidlaw claims the biomass plant is cleaner than coal and therefore should be approved. Specific references are made to a coal plant planned for Jamestown. The fault in the argument is that there no evidence the biomass plant will displace Jamestown or any other coal plant. Those emissions will occur with or without the Laidlaw plant.

2. The plant will reduce greenhouse gas emissions. As explained above, the plant would at best be neutral on greenhouse gas emissions and, Laidlaw's proposal does not reduce greenhouse gas emissions. Further, Laidlaw cannot claim it is reducing such emissions by comparisons to other plants. At best, the marginal need for more energy in New York will be filled by plants cleaner than coal, but most renewable energy plants being built in New York—particularly wind farms—are far cleaner than biomass, provide zero emissions, and are far larger than the Laidlaw plant. Western New York wind farms have been built, or are under construction or approved for construction, with over 200 MW of power; another 300-plus MW are in the approval process.

3. Laidlaw asserted in its July 19, 2007 letter that biomass would reduce greenhouse gases because without the biomass plant, the wood waste would end up in a landfill

and be converted to the far more dangerous methane gas.²² But the DEC, in Steven J. Doleski's October 14, 2005 letter, said

Page 86 [of the DEIS] states that the 'no action alternative also results in higher operating costs for area businesses that generate clean wood waste, as they will need to continue to pay disposal fees to get rid of their waste.' In addition, Page 90 states that "This wood is presently entering a landfill system." These statements do not accurately reflect the state of wood availability in western New York. Almost all "wood wastes" currently have a market.

Almost two years after the DEC contradicted its claims, Laidlaw tried to again submit false allegations in support of the biomass facility.

K. Conclusion

Contrary to Laidlaw's claims, whether compared to the old gas plant as Laidlaw demands or to the current status of a non-operating facility, the biomass plant would significantly increase a number of dangerous emissions, would present an unmitigable harm to the community, and would not—as proposed by Laidlaw—reduce greenhouse gas emissions.

III. VISUAL/AESTHETIC IMPACTS

The DEC defines the issue of aesthetic impact as follows:

Aesthetic impact occurs when there is a detrimental effect on the perceived beauty of a place or structure. Significant aesthetic impacts are those that may cause a diminishment of the public enjoyment and appreciation of an inventoried resource, or one that impairs the character or quality of such a place.²³

²² Laidlaw letter of July 19, 2007 at 5.

²³ DEC Policy System, Assessing and Mitigating Visual Impacts, at 5.

The Policy Statement goes on to note that mere visibility or even startling visibility, is not the issue, rather, the facility “must clearly interfere with or reduce the public’s enjoyment and/or appreciation of the appearance of an inventoried resource.”²⁴ The Route 219 Corridor is such an inventoried resource.

The addition of an exhaust stack requires the striking of a balance between effective performance and an unavoidable visual impact. In this case, the proposed exhaust stack’s 52.5-foot height was selected on the basis of an air emissions dispersion modeling analysis which predicted the 52.5 foot height was sufficient to ensure compliance with National Ambient Air Quality Standards (NAAQS). This height is less than the 70 foot tall stack that was originally proposed. Also, the power house building height was lowered by the use of a fifteen foot deep basement.

Although there is a difference of opinion between Laidlaw and the Town on the legal status the power plant use, the visual impact is solely focused on changes to the site, the most important of which is the stack. As Laidlaw has described it: “There are a number of existing buildings on the site, including the facilities for the cogeneration plant (power plant, kiln, stacker building, and storage buildings) which are currently unused and vacant.” Thus, the visual impacts relate only to the marginal changes, i.e., the proposed improvements, including outdoor storage areas.

²⁴ DEC Policy System, Assessing and Mitigating Visual Impacts, at 9.

When lumber is brought on to the site for kiln drying, it may be stored temporarily outside, on the north and south sides of the property, while awaiting space in the stacker building. The Applicant has stated that lumber will not be stored on the west side except during the unloading process. Designated areas for outdoor storage of lumber should be designated on the site plan. In addition, landscaping along the berm would be required to mitigate visual impact from Route 219, as was required as a condition of approval of the 2000 approval for the new dry kilns (however, Laidlaw never installed that landscaping).

The stack's visibility is somewhat mitigated by the fact that existing topography and vegetation will screen it from many offsite areas, especially areas of population concentration such as the Village of Ellicottville. However, the stack will be visible to travelers on Route 219, both north and southbound in the vicinity of the site.

The recently adopted 2006 Comprehensive Plan contains a lengthy discussion and analysis of significant scenic resources in the Town of Ellicottville. It identifies view corridors, which include the section of Route 219 on which the site is located, and identifies significant ridgelines whose scenic, undeveloped characteristics should be protected. The conservation district, which extends into the site for 100 feet from the right of way of Route 219 is intended to "maintain a scenic corridor along major transportation routes."

The Applicant believes that there is no visual impact, largely on the basis of its claim that there is nothing new proposed for the District. In fact, since its prior use was abandoned, its claim could at best be more accurately described as consistent with the historic usage of the site.

To the extent its argument relies on the ACP, it is rejected because that facility was never permitted and therefore creates no precedent, nor could a facility removed 10 years ago create a precedent for a June 2006 comprehensive plan. The proposed action does not appear to comply with that plan. The 52 foot exhaust stack is inconsistent with June 2006 comprehensive plan. The Applicant, despite several direct requests, has not addressed the question nor explained the inconsistency with the plan.

The DEIS provides photo-simulations from all directions based on the 52.5 foot stack height, and FEIS Appendix G contains supplemental photo-simulations illustrating potential visual impacts in winter conditions (leaves off the trees).

The proposed biomass conversion equipment requires higher power house ceiling clearances than the natural gas equipment it replaces. In order to minimize visual impacts and leave the power house's height unchanged, the power house floor will be partially excavated and lowered to obtain the necessary ceiling clearance. No other existing onsite building's height will be changed. The new cooling tower, at 20 feet in height, will be shorter than most structures on the site and thus, visually, will blend in with the existing industrial structures on site.

The DEIS had proposed the roll-off ash removal dumpster be located at the front of the power house building, but design modifications have since allowed relocation of that dumpster behind the power house (*see* FEIS Figure 1: Site Plan and FEIS Figure 3: Material Flow Diagram). Buildings on all sides will now screen the dumpster from view. The dumpster will not be visible from Route 219.

The Planning Board finds that the visual impact of the lumber drying use can be mitigated by retaining existing vegetation on site, by complying with the conditions of the 2000

special use permit approval for the new kiln building and by providing additional landscaping. A landscaping plan should be provided to incorporate all these mitigations.

The Planning Board finds that the impacts from the biomass plant have been mitigated by the change in the power house design; however, the visibility of the exhaust stack is an unavoidable adverse impact.

IV. NOISE IMPACTS

A. Background Information on Project Noise Impacts

The issue with noise has been described best by the DEC:

Noise is defined as any loud, discordant or disagreeable sound or sounds. More commonly, in an environmental context, noise is defined simply as unwanted sound. Certain activities inherently produce sound levels or sound characteristics that have the potential to create noise. The sound generated by proposed or existing facilities may become noise due to land use surrounding the facility. When lands adjoining an existing or proposed facility contain residential, commercial, institutional or recreational uses that are proximal to the facility, noise is likely to be a matter of concern to residents or users of adjacent lands.²⁵

The Final Scope required Laidlaw to prepare a noise study in accordance with the DEC Noise Policy, and Laidlaw claims that it did so. Specifically, sound power levels for individual pieces of facility equipment were estimated using equipment vendor specifications for comparable equipment, the Electrical Power Plant Environmental Noise Guide (EPPENG), and the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) Look-Up Tables.

²⁵ DEC Policy DEP-00-1, Assessing and Mitigating Noise Impacts, at 2.

Issued by the Environmental Noise Subcommittee of the Environment and Energy Committee of the Edison Electric Institute (EEI), the EPPENG is a standard reference document in acoustic consulting and contains widely accepted data on power facility equipment sound power levels and control options. The EPPENG provides utility engineers, consultants, and regulators with detailed information for predicting, evaluating, measuring, specifying, and abating power plant noise emissions. The information compiled in the EPPENG was gathered from technical publications, standards, consultants' project files and EEI member companies, and represents the state-of-the-art in terms of power plant noise data.

The FHWA TNM Look-Up Tables were developed by the federal government to provide highway traffic engineers with a screening tool for noise impact analysis. The tables provide a reference of pre-calculated FHWA TNM results for simple highway geometries. These Look-Up Tables can be found at the following web address:

<http://www.trafficnoisemodel.org/tnmlookup.html>

Sound impacts at the nearest residences and property lines were calculated in the Noise Screening Analysis using Microsoft Excel spreadsheets to predict worst-case noise levels using estimated reference sound level data and the standard equation for hemispherical wave spreading:

$$L_p = L_w + 10 \log (1 / 2 \pi R^2)$$

L_p = predicted sound pressure level (dB)

L_w = reference sound power level (dB)

R = distance of the receptor for L_p from the source (meters).

In the equation above, the term $[10 \log (1 / 2 \pi R^2)]$ represents the decrease of sound levels due to hemispherical spreading as the distance from the source is increased. Noise attenuation due to atmospheric absorption and ground effects was ignored in keeping with the conservative nature of the analysis. Laidlaw has stated that the methodology used in the Noise Screening Analysis complies with ANSI Standards and can be found in standard textbooks on outdoor sound propagation.

Noise from the proposed project will result from several sources, including delivery trucks carrying wood chips and lumber; chip moving equipment, including front end loaders; and operations of the facility, including boiler blowdowns, etc. Almost all of the problem noise is from the cogeneration facility rather than the drying kilns.

The Applicant's discussion of Noise Impacts is found in the Noise Screening Analysis in DEIS Appendix H. This analysis takes all the equipment proposed for operations of the facility and assesses noise based on "...best available data on similar equipment from recently completed power projects and by using published engineering guidelines."²⁶

Laidlaw has stated that all fuel filling, storage, and delivery operations will be conducted inside the chip building and that noise from mechanical equipment and vehicles operating within the process buildings will be significantly attenuated and absorbed by the structure of those buildings. Similarly, Laidlaw asserts that noise from the cooling tower fans would be attenuated by the shielding effects of the adjacent process building. However, one cooling tower is proposed to be west of the boiler building, and one will be east, so it is unclear

²⁶ Letter from Tech Environmental, July 5, 2005, FEIS Appendix H.

how the attenuation is achieved. Furthermore, although the chip storage is now proposed to be in a building, that building will not be completely enclosed—the applicant’s structural engineer stated that both ends of this building must be open for operations and ventilation. Therefore, the Planning Board finds the buildings will not entirely attenuate noise from chip moving operations. This is especially important given the 24 hour a day operation of the front end loader moving the chips into the fuel supply. Also, Laidlaw’s conveyor system will utilize a rubber belt, with all drive components located within the boiler building. This should help to attenuate noise from the conveyor system.

Originally Laidlaw stated that truck deliveries would be approximately 10 trucks per day with wood chips; however, they failed to re-evaluate to consider the 17% increase in inputs. Analysis of the capacity of the wood chip storage building shows that there would be approximately 13 to 14 trucks per day, Monday through Saturday, to provide the needed fuel. While Laidlaw’s noise analysis regarding truck traffic was incomplete, the additional trucks do not create significantly greater noise impacts.

Rather than provide actual noise measurements for the current ambient situation on site, Laidlaw has proposed to conduct a post-operational noise study using the following methodology:

Nighttime sound level monitoring will be performed at the property lines of the site after construction of the fuel conversion is complete. Background measurements of the equivalent sound level (Leq) will be made with all facility equipment turned off, and then all facility equipment will be turned on and a second Leq measurement will be made. The facility's increase in sound level will be evaluated per the assessment and mitigation policies contained in NYS DEC Program Policy DEP-00-1. A licensed engineering firm will use a high-precision ANSI Type 1 sound

level analyzer for all measurements and submit a letter report to the Town including all measurement data.

Laidlaw's proposed mitigation is meaningless because no remedy is reasonably available if excess noise impacts are created, and, in fact, Laidlaw offered none. The noise is derived from the activity itself rather than the volume of activity, so no mitigation appears practicable if excess noise was created except termination of the activity. Laidlaw stated in the DEIS, §6.6 (Alternative Size/Scale), "A larger facility would have greater impacts, and a smaller facility would still require the same equipment as shown for the preferred alternative. A smaller facility would not achieve the financial results required by the Owner."(emphasis added).

The Planning Board accepts Laidlaw's explanation that a reduction in scale is not feasible (*see* the Alternatives Section of this document). Since it would not be fair to expect Laidlaw to invest significant funds in a new biomass facility if it could not be reasonably sure it would be allowed to obtain a return on that investment, a mitigation dependent on post-construction elimination of the entire facility or some of its operations is not reasonable, and municipalities applying SEQRA are required to utilize a rule of reason.

The Board has also reviewed the DEC's suggested mitigation techniques: "Alternative construction or operational methods, equipment maintenance, selection of alternative equipment, physical barriers, siting of activities, set backs, and established hours of construction or operation, are among the techniques that can successfully avoid or reduce adverse noise effects." Some of these are part of Laidlaw's plans, such as limiting the kiln hours and restricting wood chip delivery times. The Board finds that Laidlaw has incorporated the maximum practicable noise mitigations into its proposal.

Based on all of the above, the decision on the cogeneration facility will be based on the noise reports submitted by Laidlaw.

B. Determination of Noise Impacts

A key determination is where should noise levels be measured? The NYSDEC Policy states “Appropriate receptor locations may be either at the property line of the parcel on which the facility is located or at the location of use or inhabitation on adjacent property. The solid waste regulations require the measurements of sound levels be at the property line. The most conservative approach utilizes the property line. The property line should be the point of reference when adjacent land use is proximal to the property line.” (emphasis added). Property lines are especially appropriate here as measuring points because adjoining uses involve outside activities. In accordance with the DEC recommendation, the Planning Board will use property lines as the measuring point.

Reviewing the noise levels in the Tech Environmental report shows property line noise levels will exceed DEC and EPA recommendations, with levels as high as 59.8 dBA at the East Property Line, 55 dBA at the Southeast Property Line, 52.3 dBA at the South Property Line, and 57.8 at the West Property line. Even compared to the abandoned operations, these represents up to 5.5 dBA increases of noise levels. Using the ambient background (non-operational period) from the Angevine report, the increases far exceed 6 dBA at each line. Laidlaw asserts that the noise study shows compliance at the property lines.²⁷ But actually, Tech Environmental only makes that claim for “off site locations” in its July 5, 2005, and its study is flawed by referencing

²⁷ Letter from Andrew J. Leja dated July 19, 2007, at 3 (quoting the draft FEIS).

the abandoned gas-fired cogeneration facilities. Thus, Laidlaw's own studies indicate the project will have a significant unavoidable adverse impact due to increased noise levels.

The DEC Policy states:

The goal for any permitted operation should be to minimize increases in sound pressure level above ambient levels at the chosen point of sound reception. Increases ranging from 0-3 dB should have no appreciable effect on receptors. Increases from 3-6 dB may have potential for adverse noise impact only in cases where the most sensitive of receptors are present. Sound pressure increases of more than 6 dB may require a closer analysis of impact potential depending on existing SPLs and the character of surrounding land use and receptors. SPL increases approaching 10 dB result in a perceived doubling of SPL. The perceived doubling of the SPL results from the fact that SPLs are measured on a logarithmic scale. An increase of 10 dB(A) deserves consideration of avoidance and mitigation measures in most cases. The above thresholds as indicators of impact potential should be viewed as guidelines subject to adjustment as appropriate for the specific circumstances one encounters.

...

In general, the EPA's "Protective Noise Levels" guidance found that ambient noise levels ≤ 55 dBA L(dn) was sufficient to protect public health and welfare and, in most cases, did not create an annoyance (EPA 550/9-79-100, November 1978). In non-industrial settings the SPL should probably not exceed ambient noise by more than 6 dB(A) at the receptor. An increase of 6 dB(A) may cause complaints.

The Tech Environmental report shows levels equal or exceeding 55 db at every property line but one. Laidlaw describes the site as vacant in the DEIS. Compared to the existing vacant status, the increase in noise exceeds 6 dB at every property line, and at the residential receptors. Even if the Planning Board used the prior abandoned operations, noise levels at the property lines exceed reasonable levels. Under either scenario, the No Action Alternative is required for the cogeneration facility to prevent harm to the public. The noise

levels also violate the community standards under the LI/SC zone as they far exceed normal residential or commercial activities.

Laidlaw states in its DEIS “in order to further minimize noise impacts, Laidlaw will equip the front-end loaders with flashing lights rather than audible back-up beepers.”²⁸ The Planning Board accepts this mitigation, would require it in the permit, and notes that the concern of the front-end loaders operating around the clock in terms of noise would be successfully mitigated with the use of flashing lights rather than audible back-up beepers.

V. MATERIAL CONFLICTS WITH COMMUNITY PLANS

One of the specific issues under SEQRA is the “creation of a material conflict where the community’s current plans or goals is officially approved or adopted.”²⁹ The criteria for both a special use permit and a site plan approval include that the project must be consistent with the Town’s Comprehensive Plan.³⁰ Based on the Board’s review of the Comprehensive Plan adopted in June 2006 and the current Zoning Code, adopted in 1990 and as amended, the proposed new Laidlaw Biomass Cogeneration Plant materially conflicts with the goals of the community and, further, this conflict cannot be mitigated except by the selection of the No Action Alternative under SEQRA, and requires the denial of the site plan as it relates to the cogeneration facility.

²⁸ DEIS at 77.

²⁹ 6 N.Y.C.R.R. § 617.7(c)(1)(iv).

³⁰ Town Zoning Ordinance §§ 6.6(A) and 7.7(A).

Laidlaw describes Ellicottville as a major recreational/tourism destination. In its DEIS (at 23), Laidlaw describes Ellicottville as

A resort destination, with a vibrant downtown, with numerous establishments catering to visitors, including accommodations, boutiques, gift shops, restaurants and bars. Residential development in the vicinity of the ski resorts includes many second homes, condominiums and vacation rentals, a residential style that is not typical of the rest of Cattaraugus County, which is more rural and traditional in nature. Home values in Ellicottville are also higher than is typical in the County. Development pressure is strongest to the west and south of the Village, due to the location of the ski resorts, although the Town has seen growth pressures to the east of the Village too. Much of this development is residential in nature.

The Town of Ellicottville has changed substantially since Ellicottville Energy first received permission to build a gas cogeneration facility. The Town Zoning Code adopted in 1990 prohibited the cogeneration facility type use in the LI/SC District where this property is located.

The June 2006 Comprehensive Plan further moved this site away from industrial uses. The project site was designated General Commercial District, the surrounding properties as either Medium Density Residential or Conservation District. The General Commercial District

provides a location for retail trades and service uses that are compatible in scale and use with the surrounding areas. These types of commercial activities are necessary for both residents and visitors. Commercial development is intended to be concentrated

in nodes near major transportation corridors, and the not spread out along those corridors.³¹

Thus the Plan has further removed the type of dirty, noisy use the biomass presents from the project area, and Laidlaw's plans directly contradict the goals of the Plan. While the Plan encourages preserving manufacturing jobs, it does not do so in this location. The Board finds that Plan goal is met by authorizing the lumber drying kilns, which will, according to Laidlaw, provide a significant economic benefit.

A second mandatory criteria applicable to both special use permit and site plan approvals is consistency with the requirements of the zoning ordinance. The project site is located in the Light Industrial/Service Commercial (LI-SC) zoning district. One purpose of the LI-SC District is to ensure that "Each LI-SC District shall be located in such a way that light industrial and service commercial uses will neither encroach upon or otherwise damage surrounding uses...." (Section 3-8A). Section 3-8(C) of the Town's Zoning Code sets performance standards for all land uses in the LI-SC Zoning District. These performance standards ensure that land uses in the LI-SC District meet the test in this statement of purpose.

Town Zoning Ordinance Section 3-8(C) states (in part):

Community Requirements: Applicants in the light industrial/service commercial district shall provide evidence of compliance with the following:

- 1) Consideration for each industrial use will be based on the criteria that it will not create glare, heat, odor, dust, smoke, noise or physical vibrations perceptible

³¹ June 2006 Comprehensive Plan, § 8-G, at 8-4.

outside the building walls except as may be normal for a residential or commercial use.³²

Whether or not the proposed cogeneration plant meets the smoke and noise standards of section 3-8(C)(1) of the zoning ordinance was the subject of an appeal to the ZBA, as described earlier in this Statement of Findings (and in Chapter 1 of the FEIS). The ZBA determined that the proposal did not meet the smoke and noise standards, finding that the proposed air emissions and noise would exceed that which would be generated by a residential or commercial use.

Although the proposed project meets all the EPA/DEC standards for air emissions, (or the proposed project would not have been granted a draft Title V permit), this does not assure that the air emissions complies with the standards set in the Town's zoning ordinance or that such emissions are acceptable. The Air Emissions Comparison Table in Appendix N of the FEIS compares the emissions from the prior natural gas-fueled facility with the proposed biomass fueled facility. In every type of emission for which the applicant has provided the amount of the previous emission level, the proposed project exceeds the amount of emissions. For example, the annual potential NO_x emissions will be approximately 111 tons per year, compared to 55 tons per year when the natural gas fueled facility operated on the site. Sulfur Dioxide (SO₂) emissions were 90 pounds per year for the natural gas fueled power plant and are predicted to be 9 tons (18,000 pounds) per year for the biomass fueled plant. Carbon Monoxide (CO) emissions were 14 tons per year for the natural gas fueled power plant; they are predicted

³² Note that these standards are similar to the criteria for special use permits listed in Section 6-6F.

to be 111 tons per year for the biomass fueled plant. Note that emissions at the present time are zero.

Therefore, the Planning Board finds that emissions from the biomass-fueled power plant would result in a significant degradation of the air quality in the Ellicottville area, which is dependent upon a pristine environment to support its major industry, which is tourism. The Planning Board further finds that the anticipated emissions from the biomass fueled power plant exceed that “which may be normal for a residential or commercial use” and therefore does not meet the standard of Section 3-8(C) as it relates to smoke. The Planning Board further finds that emissions from the lumber drying kilns, which is expected to be water vapor, which may be visible under certain weather conditions, is in compliance with the smoke standard.

Noise from the proposed project has been discussed previously. The Planning Board finds that the proposed noise levels that would be generated at the property line from the operation of the biomass-fueled plant exceed state and federal standards, and do not comply with the standards of the Town’s zoning ordinance as it relates to noise. The Planning Board further finds that noise associated with the lumber drying kilns, which is related to several delivery trucks per week and periodic movement of the lumber on site, is not a significant increase in noise level and complies with the Town’s zoning ordinance standards.

The Planning Board further finds that dust from the transfer of ash on site exceeds that of a residential and commercial use and that the mitigation measure proposed by the applicant, wetting the ash with a hose as it is dumped from one container into another container would not be effective unless the amount of water applied was so substantial that it could create lye, a hazardous substance that could potentially affect ground water and surface water quality.

The Planning Board finds that there would be no significant dust generated by the operation of the lumber drying kiln.

The Planning Board further finds that, if the wood chip pile and plant operations are properly managed, odors from the co-generation plant would not exceed those that would be expected from a residential or commercial use. The Planning Board finds that odors from the lumber drying kiln are not expected to exceed that which would be expected from a residential or commercial use.

The Planning Board further finds that neither the lumber drying kiln nor the biomass plant will generate glare, heat, or physical vibrations that would exceed any zoning ordinance standard, based on information contained in the FEIS.

In summary the Planning board finds the biomass cogeneration facility materially conflicts with the Comprehensive Plan, and cannot meet the community standards portion of the Zoning Ordinance. For each of these reasons, separately and cumulatively, the site plan for the cogeneration plant must be denied.

VI. AGRICULTURE

Potential impacts on agriculture in SEQRA discussions normally are concerned with loss of farmland. That is not an issue here. Rather, the issues are the (1) Laidlaw's claims of benefits to the forestry industry and (2) possible dangers to the local forests from the import of diseased wood or wood infested with invasive species.³³ The first matter is dealt with under the

³³ In regard to groundwater contamination, as discussed in detail elsewhere in this Decision, the Project as proposed by Laidlaw could result in runoff from the chip storage and ash handling processes, but no agricultural resources were identified that could be potentially harmed by such runoff. Further, any

Footnotes continued on next page.

section entitled “Project Benefits,” and, as noted there, the DEC found Laidlaw’s claim of benefits to be untrue. This section deals with the dangers of importing diseased or contaminated wood into the Ellicottville area.

For a number of years state (DEC, Department of Agriculture and Markets) and federal (US Department of Agriculture) agencies have been fighting the spread of various harmful insects. The USDA and DEC have both issued warnings on the transportation of firewood and other wood products, including “green lumber and other wood materials living, dead, cut or fallen, including nursery stock, logs, stumps, roots, branches and debris of half an inch or more in diameter of many common urban and forest trees.” Laidlaw’s fuel supply area includes certain quarantine areas.

Discussions were held with representatives of NYS Department of Agriculture and Markets. They felt there was little risk to the Ellicottville area from pests as few were likely to survive the chipping process. A greater threat was from diseases, which would not be killed by chipping. Accordingly, as permit conditions, Laidlaw must certify that none of its lumber or chip supply were procured from quarantined areas, and update the quality control plan to demonstrate how this will be accomplished.

In summary, the Planning Board finds that there is a risk to agriculture, specifically, silviculture, from the Project. Further, based on the comments of the DEC, the record shows there will be no benefit to agriculture. Although the balance slightly weighs

Footnotes continued from previous page.

approval of the cogeneration facility would include the requirement of impervious surfaces for these areas and a stormwater management plan, minimizing any risk.

against the Project, the Board does not consider the risks to agriculture sufficient reason to deny either request, as long no feedstock product (lumber or wood chips) is accepted from quarantined areas.

VII. TRAFFIC

Traffic associated with the facilities presents three types of impacts:

1. Trucks servicing the facilities.
2. Noise from truck traffic, including unloading and loading operations, and chip handling operations.
3. Air impacts from truck traffic.

The noise and air impacts are incorporated into those respective sections in this Decision. This section focuses on impacts from increased truck traffic. Traffic from employee and visitor vehicle trips is included in this impact, but evaluation of those trips shows they have an insignificant effect.

The sources of the truck traffic are the (1) chip delivery for the biomass plant, (2) lumber delivery and removal for the kilns, and (3) ash and other solid waste removal from both uses. Traffic will use an existing drive on the north side of the carwash parcel which runs along that property line. There will be approximately 13 to 14 trucks per day arriving with wood chips (Monday through Saturday), approximately three lumber trucks arriving over the course of each week for pick-up and delivery of lumber, and one truck on a periodic basis (approximately once every 3 to 5 days) for the removal and replacement of the ash roll-off container.

The transportation analysis assumes the kiln will produce 6 million board feet per year. All truck traffic will be restricted to the hours of 7 am to 6 pm, with no truck traffic on Sunday. As stated in the DEIS, the anticipated truck traffic from the site will increase truck volume on Route 219 by 1.7% and overall traffic (trucks and other vehicles) by 0.2%. Laidlaw asserts the wood chips trucks will generally be arriving from the north (Buffalo metropolitan area), and thus the majority of trucks will not pass through the Village of Ellicottville. Laidlaw's fuel supplier refused to identify its actual supply points, but while Laidlaw's assertion is unsupported, the traffic increase in Village would be minor in any case.

The project site can handle this traffic, as it located near the intersection of two state highways. There is no evidence of a Loss of Service at the important Route 219/St. Rt. 242 intersection. The roadways can handle the increase without modification. The New York State Department of Transportation has concurred that the increased truck traffic will not cause a problem for the state transportation system.

In summary, the Board finds that traffic impacts do not—except as noted in the noise and air sections—create a significant adverse impact.

VIII. DRAINAGE

An issue of concern involves the potential runoff from the stored chips if an impervious surface is not used. Related to this, it also appears that soil could become commingled with the wood chips as they are moved through the building. The Town's concern is with the potential runoff impact.

The proposal calls for the chips to be stored inside an open ended building. This would expose the chips to some wetting from blowing snow and rain, but should keep most

stormwater from flowing through or over the chip pile. There is the likelihood that there will be a minor amount of runoff from the pile due to outdoor storage of the chips before they are shipped to the site, and the blowing rain and snow discussed above. The building proposed to house the chips currently has a dirt floor. The proposed chip handling plan calls for three sided concrete bunkers, so the Town assumes they would have a concrete floor under the chips. But runoff from the piles would then likely flow off the concrete bunker at the low end, or into the ground at joints in the bunkers. Since no design plan was submitted, there may be significant gaps between the slabs. This would likely soak into the ground beneath the building. Laidlaw was asked to provide information about potential contaminants in this runoff, but that information was not provided. The floor of the storage building as submitted by Laidlaw is dirt.

At a January 29, 2007 Planning Board meeting Laidlaw stated blacktop or other impervious surface was not necessary. But they recommended the Town permit requirements follow the City of Burlington, Vermont's procedures. Burlington has an impervious floor in its chip storage facility. Also, fuel supplier Cousineau's recommendation to the Applicant (letter dated May 29, 2005, Appendix C in DEIS) is that the wood chips should be stored on an impervious surface, such as asphalt or concrete.

The chip conveyor is proposed to be covered from above, but not fully enclosed. Some chip spillage is expected as the conveyor is not fitted with sides to contain the chips. These chips will accumulate on the ground beneath the conveyor until they are picked up by the employees of the plant. While on the ground they will be subject to stormwater washing over them, which may mobilize the chips into the flow stream, or may leach contaminants into the storm water runoff flows.

The ash dumpster is located outside. Laidlaw proposes using a spray of water to eliminate mobilization of dust from the ash into the air. Any spilled ash would also be subject to rainfall wetting. The potential adverse impacts of this wetting of the ash is from the potential for the formation of lye and the mobilization of that lye into the storm water runoff.

The work plan for the kiln drying operation calls for the storage of the wood stacks outside without cover. This will subject the wood stacks to direct rainfall with resultant influence on the storm water runoff with the potential for adverse impacts on the quality of the water in the runoff.

Current NYSDEC and EPA regulations prohibit discharges of storm water associated with industrial activity without a National Pollutant Discharge Elimination System (NPDES) permit. These regulations allow very limited exceptions, and strict guidelines are provided regarding eligibility for a No Exposure Certificate.³⁴ The above cited exposures will make this site ineligible for the No Exposure Certificate. Laidlaw must therefore obtain a Multi-Sector General Permit For Stormwater Discharges from Industrial Activities (GP-0-06-002), according to Mark Jackson of NYSDEC Division of Water, Region 9.

The Board finds that the site plan, as it relates to the cogeneration plant, would have to be modified to require impervious areas and proper drainage in any chip handling and ash processing areas. Any approval would include a requirement for an impervious surface under the chips at all times, and a proper drainage mechanism. This is the method employed at facilities Laidlaw has identified as leaders in the industry and is recommended by the chip

³⁴ See the No Exposure Certificate and related instructions, FEIS Appendix L.

supplier, Cousineau Forest Products. The ash storage/handling area will have to be covered in a manner to limit water infiltration and conducted on an impervious surface. The decision of the Board on the site plan is made with these conditions incorporated. With impervious flooring and drainage facilities, the activities will not have a significant adverse impact on stormwater runoff.

IX. SANITARY SEWER CONNECTIONS

The potential impact of the cogeneration facility on the Town and Village of Ellicottville Sewer Sanitary System is a potential major impact, but one which the Planning Board believes can be addressed through certain modifications and compliance with the Village sewer regulations.

The project could affect the Town and Village's sanitary sewer system in three ways: volume of discharge water, temperature of discharge water, and quality of discharge water. The volume of the discharge is important because the sanitary sewerage system is currently experiencing surcharging during wet weather conditions in the area through which the sewerage from this facility would pass. There has been an on going problem with sewer surcharges in the trunk sewers downstream of the proposed discharge point in the collection system. This has been a large problem facing the community, and significant resources have been expended to try to correct this problem.

Discharge to the sanitary sewer system primarily results from blow down water from the co-generation boiler and cooling towers. The majority of cooling water used by the facility will be absorbed into the atmosphere as clean water vapor after being passed through the cooling towers to dissipate heat. The cooling water is continually cycled through the condensers and back to the cooling towers. Occasionally, some of that water must be wasted to the sanitary

sewer. Based on the water balance presented by Laidlaw, sanitary sewer discharge from the cooling towers is estimated to be approximately 4000 gallons per day. The discharge to the sewer will also include approximately 2700 gpd of boiler blowdown water.

Blow down will not be continuous, but will occur periodically, when internal monitors indicate that dissolved solids reach a certain level. Blow down of the boiler and the cooling towers will discharge an anticipated couple hundred gallons each per control sequence.

The proposed discharge of 6150 gallons per day (gpd) represents the equivalent of approximately 25 equivalent dwelling units (based on 250 gpd/edu). Depending on how this discharge is released, it could represent a significant adverse impact on the capacity of the downstream sewers. In its July 14, 2006 pre-draft FEIS, Laidlaw proposed a surge tank to hold blow down water from the boiler and cooling towers. But in the revised December 18, 2006 pre-draft FEIS the surge tank was eliminated, and therefore is not shown on the site plan. The originally proposed surge tank would allow the impacts of this discharge to be significantly reduced by spreading the flow out over the entire 24 hours of the day. The flow would then represent no greater impact than two simultaneous showers typical of an average home. Although the applicant inexplicably deleted the proposed surge tank from the project, the Planning Board finds that a surge tank is necessary to mitigate potential impacts to the Town and Village's sanitary sewer system. In order to reduce the impact on the capacity problems in the sewage collection system, the surge tank should be fitted with a small pump that will discharge approximately 4.5 gpm (gallons per minute) into the sanitary sewer on a 24 hour a day, 7 day a week basis. This will allow for the introduction of the proposed maximum discharge of 6150 gpd with the least impact to the capacity in the downstream sanitary sewer.

Pretreatment of the wastewater, which is primarily a blend of cooling water and boiler water, must be required to assure that the discharge will comply with the Village's wastewater treatment system limits. Dissolved and suspended solids in the wastewater (calcium, magnesium, sodium, silica) will fall in the range of 400 to 1,200 ppm. Laidlaw contends there will be no chemical reaction between boiler blow down water and sanitary sewage. The cooling tower blow down will contain a trace concentration of residual biocide that will be quickly consumed by the high organic loading typical of ordinary sanitary waste; Laidlaw has estimated this will happen within 30 seconds of the blow down water's introduction to the system. They provide no documentation to prove that claim, but it is agreed that the biocide will dissipate relatively quickly and should have no adverse impact on the operation of the sanitary sewer.

Laidlaw has stated that proper operation of the plant boiler and cooling towers requires a pH range of 8 to 9.5, which is within the operating parameters of PVC compounds. and that this pH range will be maintained in the course of ordinary facility operation through chemical treatment (e.g., addition of caustic in the form of sodium hydroxide or potassium hydroxide) specified by the equipment manufacturer and routine sampling and testing protocols. The blowdown water will therefore be expected to be in that range of pH. Ordinary sewage would be expected to have a pH in the range of 7.5 to 8.0. Laidlaw's expert, Barclay Water Management, Inc., stated that "the discharged water pH can be maintained between 8-9.5" without providing specifics of how this can be accomplished.

The Village of Ellicottville Sewer Superintendent will regulate the discharge of this facility as an industrial discharge in accordance with Section 5.05 of the Local Law governing sewer use. These regulations limit pH to 9.5. The Applicant will have to develop a

pre-treatment plan that will show how pH levels will be maintained and how this will be monitored and verified, and how a fail safe flow interruption will be provided to prevent flows with a higher pH from entering the system. The pre-treatment plan should include continuous pH monitoring, with flow control to interrupt the discharge if the pH is excessive.

Laidlaw proposes to install a small heat exchanger to ensure that the temperature of the cooling water and all discharges to the sewage system will not exceed 120° F, which is comparable to discharges from other commercial/industrial system users. At this temperature, the facility's wastewater will be similar in temperature to discharges from many household appliances, such as showers, washing machines, or dishwashers, and also similar to the temperature of wastewater discharged from many commercial establishments. At the public hearing, Laidlaw presented that the actual temperature of the blow down water released from the boilers would probably be 385 degrees (see the transcript of the January 29, 2007 meeting). Laidlaw presents that a heat exchanger will be used to cool the wastewater. When asked at the meeting if the heat exchanger would accomplish the cooling of this 385 degree blow down to the described maximum discharge temperature of 120 degrees they stated that the heat exchanger "in addition to blending with cooling tower water" would be depended on to lower the temperature. No actual description of the temperature of water wasted from the cooling towers was presented, but it is assumed it will be hotter than 120 degrees. Further no description of how the timing of the cooling tower waste blowdown would coincide with the boiler blowdown, or of how these streams would be mixed to achieve the "mixing of water going through the discharge" (Planning Board meeting transcript) would be accomplished was provided. There is a limited amount of cooling tower blowdown water available so the heat exchanger will have to be depended on to remove the heat to a large degree.

The specification sheet for the type of PVC sewer pipe in the collection system where this wastewater will be discharged states that the maximum temperature of the flows in the pipe should be limited to 140 degrees. The proposed 120 degrees would be low enough to protect the pipe, and it is anticipated that the ground surrounding the sewer will be a significant heat sink that will dissipate more of the heat rather quickly. The Village of Ellicottville may mandate that the temperature of the discharge be limited to 120 degrees and that there be a continuous monitoring of the temperature of the discharge from the heat exchanger with a fail safe flow termination in the event the temperature exceeds 120 degrees.

The Board finds, based on the advice of Laidlaw's own experts, the Village sewer engineers and the Town Engineer, that some pretreatment of the wastewater discharge will be required to mitigate potential impacts on the sewer system of the community. The surge tank is necessary, not only to control the flow of discharge into the sanitary sewer system, but to allow the quality and temperature of the discharge to be monitored as well. There should be continuous monitoring of both pH and temperature as the discharge goes into the surge tank and there should be a pump control on the outflow of the surge tank, so that outflow could be stopped if the parameters of the discharge were exceeded.

The facility will also generate more typical sanitary sewage discharges from toilet and washing use by employees. These flows will not have a significant impact, but must be introduced to the discharge after the surge tank, so that the sanitary waste does not accumulate in the surge tank, with settlement of solids and septic conditions occurring.

In conclusion, accepting Laidlaw's reduced worst case discharge to the sanitary sewer system of 6150 gpd and the other factors discussed above, a surge tank is necessary to

mitigate impacts from volume and timing of discharge water, temperature of discharge water, and quality, especially pH, of discharge water for the cogeneration facility. Thus, any approval of the cogeneration facility must include a surge tank, and the plant must also meet all Village requirements for pre-treatment of the wastewater, obtain a Village permit, and limit discharge to 6150 gpd.

X. IMPACTS ON WATER RESOURCES

A. On-Going Operations

Water to the facility will be provided by two sources. A pond located on the property has historically provided water to the plant at a rated capacity of 55 gpm. This pond will continue to be used. This system will be supplemented with a newly drilled well, which will provide an additional 50 gpm (maximum) of water supply. Test drilling has determined that the new well can maintain a draw of 80 gallons per minute (gpm) with no impact on surrounding wells. The combination of these two sources will amply cover plant operations, which will require a maximum of 100 gpm.

In addition, there is a separate, spring-fed, non-potable water supply on the property; potable water is purchased in 5-gallon dispensers for employee drinking water. Laidlaw has an easement for access and use of the water from the pond across the street (west side of Route 219), but water from this pond is reserved only for emergency firefighting purposes, not for normal operations.

Water will be used on an ongoing basis for the following purposes:

- Make-up water to the boiler to replenish the water lost by periodic releases needed to maintain water quality. These releases are normally referred to as “blow down.”
- Make-up water to the cooling towers for water lost due to blow down and evaporation (water sprayed on the coils in the cooling towers evaporates to the air).

It is estimated that the plant will consume between 60 and 90 gpm. The amount will vary depending on usage of air coolers associated with dry kiln operation, as the coolers are more effective in cold weather.

- Large cooling tower will evaporate 45 gpm.
- Small cooling tower will evaporate 10 – 36 gpm, depending on how much cooling is accomplished in the air coolers (more in winter, less in summer).

The Board finds that there adequate water resources available and neither activity would have a negative impact on the water supply.

B. Construction Period Impact

There is a potential temporary construction impact to the well on the Marble Works property, during construction of the basement. An assessment of the feasibility of the proposed 15 foot basement and any potential hydrological impacts on groundwater was prepared. While depth to the water table varies from 5 to 8 feet across the property, construction of a waterproof basement is feasible. Laidlaw will be required, as it proposed, to use shallow wells surrounding the building to temporarily lower the onsite water level to a depth of approximately 20 feet to allow dry basement construction. The wells will be closed following construction.

During the pumping that is required to allow the basement construction, there is a possibility that the groundwater could be lowered enough to temporarily affect water supply to neighboring properties. As mitigation, Laidlaw proposes that: “A monitoring regime will be

implemented assuring water levels remain above the closest neighboring well pump (Marble Works, assuming a pump depth of 25 feet). In addition, during construction, the dewatering system will intercept the spring water prior to entry into the holding tanks, which is currently used as a non-potable water source by the car wash and Laidlaw. Some of the dewatering waters be routed to the holding tank, which the spring presently feeds, consistently keeping the holding tanks full.”

The Board finds that basement construction would not have a long-term impact on the surrounding groundwater system after completion. The construction of the basement will occur below the water table, because of the planned dewatering during construction, and from the proposed mitigation. The Board finds that with the mitigation described herein there will not be a significant impact on the groundwater system.

XI. WETLANDS

The applicant found no wetlands on the site. The Planning Board agrees with this finding.

XII. IMPACTS FROM ODORS

The Board finds that there are several potential sources of unacceptable odors, the wood chip pile, the storage of raw and dried lumber, the operation of the dry kilns and the operation of the co-generation plant. The Board agrees with Laidlaw that the only odors associated with the kiln operation will be the scent of freshly sawn lumber, which will only be discernable when in close proximity to the lumber (not offsite), and thus finds no adverse impact from the dry kiln operation. The sources that have the most potential to have an adverse impact are the storage of wood chips and the operation of the cogeneration plant.

Laidlaw states that the operational plan for the rotation of wood chips through the storage building, and the restriction on site to a 10 day supply of wood chips, will prevent buildup of odors from aging wood, thus minimizing facility odor impacts. The Planning Board has recalculated the actual storage capacity as more properly estimated at 4 to 5 days, so the turnover will be greater. Laidlaw has also stated that the normal operation of the power plant will not emit odors, due to the technology of the combustion system, which promotes complete combustion of the fuel source, and thereby reduces the potential for odors.

The predicted SO₂ emission rate for the project is predicted by the air modeling to result in maximum ambient air quality impacts of 76 micrograms per cubic meter. This level is a full order of magnitude lower than the lowest published SO₂ odor threshold of 786 micrograms per cubic meter, meaning the project will not produce odors detectable to the population. In the event that a malfunction occurred resulting in incomplete combustion it is likely odors would become detectible in the surrounding community. The magnitude of this impact would be subject to how quickly operations personnel could identify the cause of the malfunction and then remedy the situation. Laidlaw has contended that in most circumstances this would happen rather quickly.

Therefore, it appears that odor impacts to the adjacent properties can be mitigated through proper handling and rotating of the wood chip pile and proper operation of the combustion process.³⁵

³⁵ Laidlaw also claims that storing the chips in a wholly enclosed building, which will contain odors. But Laidlaw's chip storage building will be open at both ends to facilitate movement and delivery of chips, and to provide for ventilation of the building to prevent moisture given off by the wood chips from causing

Footnotes continued on next page.

XIII. PROJECT BENEFITS

Laidlaw has claimed there will be a number of positive benefits from the project. The DEC and others have refuted some of their claims, and others are unsupported or overstated, but there will be project benefits, and the Board has considered these benefits in reaching its decision, and now deals with each in turn.

1. The facility will provide heat from wood fuel that would satisfy public need for renewable sources of energy. The Planning Board agrees that the use of sustainable fuels is a benefit to the local community and region, and that such use meets the State's Renewable Energy Portfolio goals.

2. Businesses in the region will be provided a useful and local purchaser of wood waste that otherwise ends up in landfills, thus businesses will benefit by not having to pay high tipping fees for the disposal of clean wood residue. The DEC specifically refuted this claim, in a letter from Steven J. Doleski, DEC Regional Permit Administrator, dated Oct. 14, 2005:

On page iv of the Executive Summary of the DEIS, it is stated that "The purchase of clean wood waste from local businesses will reduce their operating costs by providing for an alternative to the landfilling of this waste." Page 72 of the DEIS notes that "There are no other projects occurring in the area." Moreover, Page 86 states that the "no action alternative also results in higher operating costs for area businesses that generate clean wood waste, as they will need to continue to pay disposal fees to get rid of their waste." In addition, Page 90 states that "This wood is presently entering a

Footnotes continued from previous page.

structural damage. With both ends open, air movement through the building can be expected to be good, so the building is not likely to provide any significant mitigation of the odor impacts from chip storage.

landfill system.” These statements do not accurately reflect the state of wood availability in western New York. Almost all “wood wastes” currently have a market. The CanFibre particle board plant in the City of Lackawanna planned on using 100% waste stream wood for the plant from about 1999. They could not obtain enough waste wood from a large area- with a haul radius up to 250 miles. By 2002 they were using sawmill residue and whole tree chips. Dry Creek Products in the Village of Arcade is currently hauling sawdust up to 200 miles to their plant. On page 5 of Appendix B in the DEIS, the statement that “the amount of pallets that are created which are 100’s and 100’s of thousands of tons in this area alone” is not supported. Such a supply of unused wood should be documented. Appendix C of the DEIS (Fuel Supply Agreement) indicates that the cost of chips not to exceed \$15 per ton during the first year. This price seems extremely low.... Since the availability and cost of wood waste will affect the economic viability of the proposed project, there should be a further consideration of those factors.

The DEC stated there were in fact no evidence that wood waste was currently ending up in landfills. The DEC also said that the cost estimates used by Laidlaw appear to be overstated, and highly doubted the proposed financial benefits or efficiency of the new plan.

3. The facility will provide a cleaner source of energy. As stated in the air emissions section, the wood chip fuel is not necessarily cleaner than natural gas as fuel. The Air Emissions Comparison Table, FEIS Appendix N, compares the emissions from the abandoned natural gas-fueled facility with the proposed biomass fueled facility. In every type of emission for which the applicant provided the amount of the previous emission level, the proposed project produces higher emissions. Thus, predicted NOx emissions are 111 tons per year compared to 55 tons per year from the disassembled natural gas fueled facility, SO₂ emissions rise from 90 pounds to 9 tons (18,000 pounds) per year for the biomass fueled plant, and carbon monoxide levels increase from 14 tons to 111 tons per year for the biomass fueled plant. Particulate matter

rises from virtually zero to 4 tons annually. Further, the actual emissions from the vacant site are currently zero.

4. The Project will provide economic benefits in terms of employment. The Planning Board agrees that the hiring of 25 workers would be a benefit to the community. Since the Board is approving the kilns special use permit and site plan, part of that benefit will be achieved even with the denial of the cogeneration plant because, because as Laidlaw describes it, “the drying kilns are the predominant land use,”³⁶ with significant revenues, and will hire 11 people.

The Board does note, however, that Laidlaw has at various times claimed it would be putting 25 workers “back to work” But, (1) in discovery materials provided to the ZBA, Laidlaw admitted it never had more than 13 employees, (2) the bank Trustee who seized the facility terminated all employees by October 2003, and (3) the Lumber Drying Kilns will provide 11 of the jobs Therefore it appears that Laidlaw has overstated the potential benefit of the biomass plant, and, as to that facility, the benefits are de minimus.

5. The community will face a loss of real property taxes if biomass plant is not built and the kilns reopened. The Board notes that the facility has already received significant real property tax reductions without harm to the community. The assessed value may benefit from the reopening of the kilns.

³⁶ Laidlaw’s Post-Hearing Brief to the ZBA, at 22.

6. The proposed operation will provide low cost lumber drying facilities to the forestry industry in the area. There is no evidence anywhere in the record that Laidlaw's facility charged less than any other facility, or that they are even needed by the local forestry industry.

7. Availability of clean potash for agricultural use. In its July 14, 2005 pre-draft FEIS Laidlaw offered to provide clean potash created as a byproduct of the cogeneration process "available to the local agricultural community free of charge." Laidlaw's December 2006 draft FEIS eliminated this proposal and they now plan to landfill the ash. This is a potential project benefit not listed by Laidlaw but considered by the Board.

8. The facility will help to keep overall energy costs down. There is no evidence that Biomass is cheaper than other fuel sources. Most alternative energy consumers must specifically choose green energy sources because they are in fact more expensive. The claim is unsupported.

As to the Lumber Drying Kilns, the Project Benefits noted herein will be achieved. As to the Biomass Facility, given Laidlaw's failure to support its claims, and the DEC's statement that many of the claims are untrue, the Planning Board in this instance relies upon the DEC in determining that there is no support for much of the benefit claims. As to the new biomass plant, Laidlaw has significantly overstated the alleged public benefits, directly misstated certain benefits, and outrightly falsified other claims. The Planning Board finds that there will be public benefits of the project, but nowhere near to the level claimed by Laidlaw, nor sufficient to justify the harms that the biomass facility would cause.

XIV. IMPACTS TO LAND

The project area is largely previously disturbed. The Project will have little or no impacts on the topography of the site, nor is the loss of significant vegetation, soils, or important habitat foreseeable. Impacts from excavating the basement of the power house are examined under the Impacts to Water Section.

XV. ALTERNATIVES

One of the requirements of SEQRA is to look at whether alternatives could reduce or mitigate further the potential harmful impacts of the Project. The Board believes that the site plan and special use permit as proposed incorporate the alternatives that best minimize those impacts for the lumber drying kilns.

As to the new biomass plant, the Planning Board has reviewed the Alternatives discussed in the DEIS, and additional comments in the FEIS, and, for the most part believes that Laidlaw is correct, that size, technology or other alternatives are unfeasible. The exception is the No Action Alternative, which the Town believes is the required route for the biomass plant based on the record.

Size and scope reductions to the cogeneration plant would not reduce many impacts, particularly those involved with noise, air emissions, and aesthetics. Below a certain point, the facility becomes economically unfeasible, so the impact is the same as a denial, and in fact a smaller facility would not necessarily reduce impacts. Laidlaw said in the DEIS:

Altering the size or scale of the facility would not alter the required height of the exhaust stack. A larger facility would have greater impacts, and a smaller facility would still require the same equipment as shown for the preferred alternative. A smaller

facility would not also achieve the financial results required by the Owner.³⁷

Thus, there are no alternatives to size or scale that would make the Biomass facility acceptable.

The Board has had significant discussions with the applicant regarding alternative technologies for air emissions. Laidlaw claimed that in regard to nitrous oxides there was no alternative possible. This claim was directly contradicted by Laidlaw's submission in a sworn document to the Commonwealth of Massachusetts that it could in fact use SNCR technology to reduce nitrous oxides. Laidlaw insisted this technology is not economically viable, however, and the Planning Board accepts Laidlaw's assertions on this count that the alternative technology cannot be viably considered. The Board also notes that the manufacturer of the Wellons boiler stated that there were other add-ons possible to improve air emissions to the level of state-of-the-art, and that as the Wellons boiler currently exists, it is not, as claimed by Laidlaw state-of-the-art. But again, Laidlaw claims otherwise and the Board accepts Laidlaw's claim that the technology it proposes is the best available technology. Thus, the Board's decision is made on the emissions levels as Laidlaw predicted them.

As to alternative project design and site layout, the applicant has worked to eliminate the impact on the property, reduce disturbances, and eliminate visual impacts other than the stack. The Board notes that the applicant failed to provide landscaping required by its year 2000 kiln permit. The Board finds that with the addition of the landscaping required by the

³⁷ DEIS at 88.

approval of the special use permit for the lumber drying kilns that the alternative site layout provided by Laidlaw for the kilns is acceptable and results in the fewest environmental impacts.

In the DEIS, Laidlaw argues against the No Action Alternative for a variety of reasons, most of which cannot stand the light of examination, and others which are outrightly false. The No Action Alternative as to the biomass facility means that none of the air, noise, visual and other negative impacts associated with the facility will occur. Further, as explained in the section on Impacts on Air, emissions of substances would not be higher under the Biomass facility, since no facility is currently permitted, and even the natural gas fired facility has significantly lower emissions of many hazardous substances.

Laidlaw's claim that over time the No Action Alternative would have greater negative impacts if the facility becomes economically unfeasible and is completely closed, is misleading because the facility has been closed and idle for over four years without negative impacts upon the community nor on the adjacent properties. Further, as shown by the June 2006 Comprehensive Plan and the actual economic activity since the closure of the plant by the Bank Trustee, rather than impeding economic development efforts and have a deleterious effect on the community character, the cessation of the Laidlaw plant has had no negative impact at all.

The No Action Alternative would mean that the benefits outlined in the project benefits section of this Finding Statement would not be achieved, but as noted in that section most of those benefits, particularly economic benefits, were overstated by Laidlaw. The Board has considered the loss of Project benefits resulting from the selection of the No Action Alternative, and finds they do not outweigh the harms from the plant.

Also within the No Action Alternative, Laidlaw talks about the importance of the wood kiln facility. The Board agrees and as noted herein has approved the wood kiln alternative. The Board notes that Laidlaw specifically told the ZBA in sworn documents that the wood kiln facility is a stand alone, principal use, therefore all of the benefits of the wood kiln facility — including many of the employment benefits identified to the DEIS — would be achieved without the Biomass cogeneration facility.

In summary, many of the claims as to why the No Action Alternative is not preferable advanced by Laidlaw are unsupported, out rightly untrue, or of minimal value which cannot outweigh the damage to biomass facility would do.

XVI. CONCLUSION

The Planning Board hereby finds and determines, for the reasons stated in this Decision (whether or not specifically stated below), that:

A. Lumber Drying Kilns

As to the Drying Kilns Special Use Permit and portion of the Site Plan,

1. The requirements of 6 N.Y.C.R.R § 617.11 have been met.
2. Consistent with social, economic, and other essential considerations from among the reasonable alternatives available, approval of the action, with the conditions stated herein, is the alternative that avoids or minimizes adverse environmental impacts to the maximum extent practicable, when considering all effects, after maximum potential mitigation, disclosed in the review record.

3. Consistent with social, economic, and other essential considerations, adverse environmental effects revealed in the environmental review process will be avoided or minimized to the maximum extent practicable the conditions cited herein, including those mitigative measures identified in the FEIS and this Findings statement.

4. Pursuant to Town Zoning Ordinance Section 6-6 (Special Use Permit Standards) the Planning Board finds that the Lumber Drying Kilns meets the criteria for a special use permit to be granted, or that mitigation measures can modify or condition the project so that it complies with the criteria.:

a. Before starting lumber kiln drying operations, the applicant shall obtain a National Pollutant Discharge Elimination System (NPDES) permit, and a copy of that permit shall be provided to the Town's Building Official. All kiln operations shall be conducted in conformance with that permit and any conditions of approval of such permit.

b. Existing areas of large on-site vegetation (trees and shrubs), which now provide a visual screen to the site from Route 219 and adjacent residential properties, shall be permanently maintained as a visual buffer. Such vegetation shall not be removed unless the Town of Ellicottville Planning Board has given prior approval for such removal.

c. Before starting lumber drying operations, the berm and landscaping required in the Board's 2000 special use permit approval for dry kilns shall be installed.

- d. Before starting lumber drying operations, the applicant shall present a revised landscaping plan to the Planning Board for its review and approval, in order to ensure that existing vegetation and proposed landscaping will adequately mitigate potential visual impacts, to the maximum extent practicable. This plan shall show:
- i. the proposed areas of outdoor storage of lumber, with the FEIS states will be stored at the north end of the site and at the south end of the property, south of the car wash.
 - ii. all buildings associated with dry kiln operations.
 - iii. Major areas of existing trees and shrubbery.
 - iv. employee parking area
 - v. The landscaping plan shall incorporate the berm and landscaping requirements of the Planning Board's 2000 approval for the new kiln building, which were never completed.
 - vi. The landscaping plan shall incorporate the proposed additional landscaping shown on the plan prepared by RJR Engineering, Sheet C200, revised 2-16-05. This site plan shows 6 proposed trees north of the marble works property; it also incorporates the berm and landscaping required by the 2000 approval, south of the car wash.
 - vii. The landscaping plan shall specify the species of trees and the size of tree at planting, as well as any other proposed plantings.

Size of trees shall comply with the standards contained in the Town's Zoning Ordinance, Section 12-6.

h. All dry kiln operations shall be carried out as described in the FEIS, in terms of amount of truck traffic, hours of operation and other descriptions contained in the FEIS.

i. Laidlaw must equip any front-end loaders involved with the Lumber drying Kilns with flashing lights rather than audible back-up beepers, as it offered to do in the DEIS.³⁸

j. Prior to commencement of kiln drying operations, the applicant shall post a bond, in an amount sufficient to replace all proposed new trees shown on the landscaping plan. The bond shall be in effect for three years following this approval, to allow for replacement of landscaping if it fails to thrive.

5. Pursuant to Town Zoning Ordinance Section 7-7 (Site Plan Criteria) the Planning Board finds that the proposed site plan for the Lumber Drying Kilns complies with the required criteria, as such plan is modified by the above conditions.

B. Biomass Cogeneration Plant

As to the proposed new Biomass Cogeneration Plant portion of the Site Plan,

1. The requirements of 6 N.Y.C.R.R § 617.11 have been met.

³⁸ DEIS at 77.

2. Consistent with social, economic, and other essential considerations from among the reasonable alternatives available, denial of the action is the alternative that avoids or minimizes adverse environmental impacts to the maximum extent practicable, when considering all effects, after maximum potential mitigation, disclosed in the review record.

3. Consistent with social, economic, and other essential considerations, adverse environmental effects revealed in the environmental review process cannot be avoided or minimized by adding, to the maximum extent practicable, reasonable conditions, including those mitigative measures identified in the environmental review process, including the FEIS and these Findings.

4. The proposed Biomass Cogeneration Facility will have unavoidable adverse impacts on the community at unacceptable levels; is inconsistent with and will have a negative impact on the neighborhood character; presents a use inconsistent with the goals of the community as stated in the Town Comprehensive Plan and Zoning Ordinance; will create unacceptable noise levels; and significant air pollution emissions; all of which are significant, unmitigable environmental detriments; and therefore, for each of these reasons individually and collectively, as well as the others stated in this Statement of Findings and Decision, the Site Plan is denied.

5. The Board notes that as stated in the DEIS, the property is vacant and unused, a position confirmed by the ZBA. Nevertheless, the Board reaches its decision to select the No Action Alternative and deny the site plan after considering the impacts (1) as measured against the vacant, abandoned state of the property, or (2) even as measured against the prior natural gas plant use. In either case the increases in noise, air emissions, visual harm and

incompatibility with the Town Comprehensive Plan require denial of the site plan for the cogeneration facility. For example, annual potential NOx emissions will be approximately 111 tons per year compared to 55 tons per year from the natural gas fueled facility, sulfur dioxide (SO₂) emissions were 90 pounds per year for the natural gas fueled power plant and are predicted to be 9 tons (18,000 pounds) per year for the biomass fueled plant, and carbon monoxide (CO) emissions were 14 tons per year for the natural gas fueled power plant but are predicted to be 111 tons per year for the biomass fueled plant. These increases are unacceptably excessive, especially when it is noted that emissions at the present time (and for the last four years and ten months) are zero.

6. The site plan is also denied under Town Zoning Ordinance Section 7.7 because the proposed project is inconsistent with the Town's Comprehensive Plan, and is inconsistent with the general purposes and intent of the Zoning Ordinance, does not comply with all applicable regulations of the code.

7. The Board finds the economic benefits are sharply outweighed by the demonstrated environmental harm from the biomass facility.

BY ORDER OF THE PLANNING BOARD OF THE TOWN OF ELLICOTTVILLE