# REVIEW OF SITE ASSESSMENT REPORT DTE WICKLIFFE, LLC

# PROPOSED MERCHANT POWER GENERATING FACILITY WICKLIFFE, BALLARD COUNTY, KENTUCKY

Prepared for:

## KENTUCKY STATE BOARD OF ELECTRICAL GENERATION AND TRANSMISSION SITING PUBLIC SERVICE COMMISSION, COMMONWEALTH OF KENTUCKY

Prepared by:

MACTEC ENGINEERING AND CONSULTING, INC.

MACTEC Project 3142-05-0516





May 13, 2005

Mr. A. W. Turner, Jr. Staff Attorney, Management Audit Branch Public Service Commission, Commonwealth of Kentucky 211Sower Blvd P. O. Box 615 Frankfort, KY 40601

Subject: Review of Site Assessment Report DTE Wickliffe, LLC Proposed Merchant Power Generating Facility Wickliffe, Ballard County, Kentucky MACTEC Project 3142-05-0516

Dear Mr. Turner:

Attached is MACTEC's report, "Review of Site Assessment Report, DTE Wickliffe, LLC, Proposed Merchant Power Generating Facility, Wickliffe, Ballard County, Kentucky".

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

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Milo B. Eldridge Project Scientist

Nicholas y. Schmithy \_m\_ with permission Nicholas G. Schmitt, P.E. Senior Principal

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## SECTION A

#### **BACKGROUND STATEMENT**

This document is the review of a *Site Assessment Report* (SAR) submitted to the Kentucky State Board on Electrical Generation and Transmission (Board). The SAR was submitted by DTE Wickliffe, LLC (DTEW) to the Kentucky Public Service Commission (PSC), serving as staff to the Board.

The proposed facility will be known as the DTE Wickliffe Cogeneration Facility. This proposed facility is an unusual application to the Board in that it is completely located within an existing manufacturing facility and because of its small size (13 megawatts). The proposed facility will be owned by DTEW, built on property owned by NewPage Corporation Wickliffe Mill (NewPage) and leased by DTEW. NewPage took ownership of the MeadWestvaco Mill on May 2, 2005.

The PSC retained MACTEC Engineering and Consulting, Inc. (MACTEC) to perform this review. DTEW has submitted the SAR to support its application to construct and operate a merchant electric cogenerating facility in Ballard County under SB 257 (the ACT), passed by the General Assembly of the Commonwealth of Kentucky in 2002. The provisions of this ACT are embodied in KRS 278.700 through 278.716.

#### **PROVISION OF THE ACT ESTABLISHING THE SAR REVIEW PROCESS**

The ACT defines a class of merchant power plants and requires them to obtain construction certificates as a prerequisite to the commencement of actual construction activity. The ACT created the Board and gave it authority to grant or deny construction certificates requested by individual applicants. The Board is an arm of the PSC for administrative purposes.

The ACT created the application process and, within the process, the following series of steps for preparing and submitting this report:

1. The applicant files for a construction certificate and pays the fees.

- 2. The applicant submits required items, including the SAR.
- 3. If it wishes, the Board may hire a consultant to review the SAR and provide comments concerning the adequacy of the information and to propose mitigation measures. The Board, at its discretion, may direct the consultant to prepare a separate SAR.
- 4. The consultant must deliver the final report so the Board can meet its own statutory decision deadline 90 days or 120 days from receipt of an administratively complete application, depending upon whether the Board will hold a hearing.
- 5. To provide adequate time for public notice, the SAR review is to be complete within 30 days of receipt of an administratively complete application.

## **COMPONENTS OF A SAR**

KRS 278.708 indicates a complete SAR shall include:

A description of the proposed facility that shall include a proposed site development plan that describes:

- 1. Surrounding land uses for residential, commercial, agricultural, and recreational purposes;
- 2. The legal boundaries of the proposed site;
- 3. Proposed access control to the site;
- 4. The location of facility buildings, transmission lines, and other structures;
- 5. Location and use of access ways, internal roads, and railways;
- 6. Existing or proposed utilities to service the facility;
- 7. Compliance with applicable setback requirements as provided under KRS278.704(2), (3), or (5); and
- 8. Evaluation of the noise levels expected to be produced by the facility;

An evaluation of the compatibility of the facility with scenic surroundings;

The potential changes in property values resulting from the siting, construction, and operation of the proposed facility for property owners adjacent to the facility;

Evaluation of anticipated peak and average noise levels associated with the facility's construction and operation at the property boundary; and

The impact of the facility's operation on road and rail traffic to and within the facility, including anticipated levels of fugitive dust created by the traffic and any anticipated degradation of roads and lands in the vicinity of the facility.

The site assessment report shall also suggest any mitigating measures to be implemented by the applicant including planting trees, changing outside lighting, erecting noise barriers, and suppressing fugitive dust, separate data collection and additional evaluation.

## **IMPLEMENTING THE SAR REVIEW PROCESS**

DTEW's application has triggered this SAR review process to occur under the ACT. The review included a site visit, follow-up data collection with the applicant and some limited amount of separate data collection and additional evaluation.

#### SAR REVIEW METHODOLOGY

MATEC proceeded in this sequence:

- 1. Conducted a review of previous SAR reviews completed under the ACT to obtain preferred procedural approach.
- 2. Conducted a brief review of secondary data sources to obtain background information and geographic setting for the DTEW project.
- 3. Conducted a limited review of relevant evaluation criteria to identify potential issues and assessment approaches to serve as benchmarks for review adequacy.
- 4. Reviewed the contents of the SAR and application.
- 5. Identified additional information we deemed useful for a proper review, and submitted questions to the applicant via the Board.
- 6. Conducted the required site visit, including obtaining oral and written information supplied by the applicant, over a one day period in April, 2005.

7. Compiled and incorporate all of the foregoing into the analysis in support of this report.

## **REPORT FORMAT AND LIMITATIONS**

This report is formatted to be responsive to the Act and our contract. Section A provides a general introduction into the SAR and the review process. Section B provides an executive summary of our review findings. Section C provides the detailed findings and conclusions of the review and also presents any additional information used to develop our findings. Section D presents a detailed discussion concerning recommended mitigation measures and future Board actions.

There are inherent limitations to any review process, in particular a review process that is completed in accordance with the requirements of a relatively new program, such as the SAR review. These limitations should be considered when using this report as a decision making tool. Two limitations are apparent: one, the applicant, the PSC staff and MACTEC must use their judgment and work together to determine what adequate review is; and secondly, development of a merchant power plant is an iterative process with a possibility that some features of the facility may change slightly during the development process. MACTEC's review process attempts to include the potential for minor changes in some of these features, and that such minor changes would not impact the outcome of this review.

## **SECTION B**

#### **EXECUTIVE SUMMARY**

#### **Description of the Proposed Facility/Site Development Plan**

The proposed facility will be an open-loop biomass facility as defined by the American Jobs Creation Act of 2004 — HR. *4520*. Specifically, the facility will use non-hazardous, wood waste material derived from forest-related resources, i.e. mill and harvesting residues, pre-commercial thinnings, slash and brush.

The wood waste material is currently being used as fuel for an existing boiler at the NewPage Wickliffe mill and steam from that boiler will be used to drive a turbine generator, which in turn will generate approximately 13MW of electricity. The electricity will be delivered to the transmission grid by connecting at the existing Westvaco Substation owned by Kentucky Utilities and located within the NewPage Wickliffe mill.

The facility will be located in Ballard County, approximately one mile south of Wickliffe in western Kentucky. In Section a)(1) through (8), the SAR provides a description of the DTEW project in terms of surrounding land uses, legal boundaries, access control, location of buildings, location of access way and internal roads, utility services and setback requirements. Conclusions with respect to the previously listed descriptive elements of the facility follow in the bulleted paragraphs. Other issues associated with site development, including scenic evaluation, potential for property value to change, noise and traffic evaluations and mitigation measures, are discussed subsequently in this report.

- Surrounding land use—The DTEW cogeneration facility will be an approximately 0.1966 acre area located in the north central area of the existing NewPage Wickliffe mill which encompasses approximately 2,200 acres. The nearest residence is approximately 1.0 mile (5,000 feet) away, with a heavily wooded 100 foot rise between.
- Access Control (and security)— DTEW anticipates that access to the site will be managed and supervised by the existing NewPage security personnel in the same manner in which access is currently controlled. This includes limiting access to those personnel which are 1) authorized by NewPage; or 2)

accompanied by a NewPage employee. All ingress and egress to the facility is expected to continue to be through the secure, manned gate of the NewPage Wickliffe Mill. There will be no public roads within the site.

- Utility services—The DTEW facility will consist of an existing, biomassfueled boiler which is currently operating on the NewPage site and the addition of the steam turbine generator proposed herein. Since all of the utilities required by the steam turbine generator already exist in the boiler building adjacent to the proposed construction site, NewPage will provide the utility requirements from the facility from existing sources. Only interconnecting piping to supply the steam is expected to be required
- Setback requirements— As a result of the location of this project within the boundaries of the NewPage Wickliffe Mill, the proposed site is surrounded on all sides by property owned by NewPage making a setback from the neighboring property impossible. Therefore, DTEW requested and subsequently received a deviation from the requirements outlined in KRS 278.708(3)(a)(7) and KRS 278.704(2) and has included a copy of that request in their application as Appendix U.

Even though the planned facility is within the NewPage Wickliffe Mill property, the proposed site is greater than 1000 feet from the nearest property line shared by NewPage and any other parties.

 Other facility site development plan descriptions provided in Section 8.2 of the SAR—Legal boundaries, location of buildings and location of access way and internal roads appear to be included as outlined in KRS 278.708 (3)(a)2., 4., and 5.

#### **Compatibility with Scenic Surrounding**

No Scenic Impact Study was performed as part of this application. However, the planned turbine building height will be approximately 50 ft. at the highest point and the building immediately to the north is 114 feet tall. The new construction for the proposed facility will occupy a small piece of land on the interior of the NewPage Wickliffe Mill and as such will not be apparent from property outside of the mill itself. DTEW plans to design and construct the steam turbine generator building to blend in with the industrial use buildings surrounding the proposed site. Given the planned construction of the facility completely within the existing NewPage facility, no additional area beautification measures are planned in conjunction with this project.

The industrial buildings, vegetation and topography within the existing NewPage area and the absence of any direct views to the site leave the proposed DTEW facility compatible with its scenic surroundings.

## **Potential Changes in Property Value for Adjacent Property**

DTEW expects the proposed project to have no impact on the value of surrounding property. Since the proposed DTEW facility construction costs are less than 0.1% of the value of the encompassing NewPage mill, the expectation of no impact on surrounding property values seems reasonable.

Governments within the United States have developed land use standards of compatibility to minimize the impact of industrial land uses on adjacent properties. Land use compatibility is a factor considered in general appraisals concerning the "highest and best" use of properties. Many general issues are considered when siting of facilities in an effort to minimize resulting negative effects on nearby properties and land uses.

According to the Ballard County Judge Executive's office, Ballard County does not have zoning district regulations affecting the area of the proposed generation facility. Therefore, there are no limitations on the use of property surrounding the site. Wickliffe, Kentucky, also does not have a zoning code.

## Anticipated Noise Levels from Construction and Operations

Various government and private agencies around the country utilize noise assessment methodologies based on accepted and published techniques. In general these methods are meant to estimate the increase in noise levels caused by various activities above the existing ambient noise levels of the study area.

The typical noise study is accomplished by:

- Identifying nearby sensitive receptors such as residences, schools, churches, parks, etc.;
- Measuring existing ambient noise levels;
- Estimating construction and operation noise levels; and
- Calculating the total noise levels due to both the existing ambient levels and the estimated construction and operation level.

In the case of the DTEW project, no noise concerns are expected to be associated with construction of the facility, or operational activities. This is due to noise level attenuation created by distance (the nearest residences and other sensitive receptors are at least 5000 feet from the proposed facility), the existing nearby buildings of NewPage being taller than the proposed facility, the trees and other vegetation and rolling topography of the nearby areas.

Even though no noise evaluation was prepared for the DTEW project, based upon MACTEC's field visit, we conclude that the construction and operation of the DTEW site should have minimal noise impacts upon nearby residences and other sensitive receptors.

#### **Impacts of Land-based Transportation**

The delivery of additional wood waste for use as fuel for the project is only expected to require an average of seven additional trucks per day. No use of railways is anticipated as a result of this project. Given the minor impact of this additional traffic, no additional degradation of the surrounding roads or lands is expected and no mitigation plans are anticipated. Further, during the planned six month construction period, no more than 50 to 80 construction workers are anticipated to be on site. No additional traffic evaluation was performed by DTEW.

Access to the DTEW facility will be from US 51 utilizing the existing NewPage entrances. No new access roads will be required. US 51 is a two-lane undivided rural road in rolling terrain. The Kentucky Transportation Cabinet (KyTC) defines US 51 as a rural principal arterial which can carry substantial statewide or interstate travel. The KyTC further defines US 51 as able to provide service to most areas with a population of at least 25,000 and all urban areas with a population of 50,000 or more. The KyTC divided the rural principal arterial system into two subclasses; Interstates, roads designated as interstate routes located outside urban areas, and Other Principal Arterials as non-interstate principal arterials outside urban areas. US 51 is also considered a part of the State Primary System which the KyTC defines as Interstates, parkways and other long-distance, high-volume intrastate routes that are of statewide significance. These routes generally link major urban areas with the state.

The existing Average Daily Traffic (ADT) on US 51 is 5939 vehicles per day (vpd) as indicated on a 2002 traffic count furnished by the Kentucky Transportation Cabinet (KyTC).

NewPage's current daily truck count is approximately 300 and the additional 7 trucks to support DTEW facility appears minor. Based on the MACTEC's site visit, the existing truck traffic and review of the existing KyTC traffic count maps, we conclude that no degradation of the surrounding roads should be anticipated.

## **SECTION C**

#### FINDINGS AND CONCLUSIONS

This section provides detailed review and evaluation of each element of the SAR as prescribed in KRS 278.708 (3). It is organized into the following five subsections:

- 1. Description of Proposed Facility/Site Development Plan.
- 2. Compatibility with Scenic Surroundings.
- 3. Potential Changes in Property Values for Adjacent Property Owners.
- 4. Expected Noise from Construction and Operation.
- 5. Impacts on Land-based Transportation.

MACTEC followed a systematic approach within each subsection: first, MACTEC describes generally accepted assessment criteria; secondly MACTEC summarizes the relevant information included in the SAR; thirdly, we present supplemental information, if any, obtained about the DTEW facility during the SAR review and its impacts; and finally, MACTEC draws its own conclusion about the DTEW facility impacts and recommended mitigation.

#### **DESCRIPTION OF PROPOSED FACILITY / SITE DEVELOPMENT PLAN**

#### **Potential Issues and Standard Assessment Approaches**

In general, the required description of the proposed facility and site development plan is primarily contained in Sections a)(1) through a)(8) of the SAR. Some items of related or supplementary information come from other sections of the SAR.

<u>Surrounding land uses.</u> The proposed location of the project is a 0.1966-acre portion of the NewPage paper mill. A view of Map L1 Proximity to Sensitive areas, indicates most of the properties adjoining the site boundaries appear to be wooded or agricultural areas. Relatively few residential areas fall within a two-mile radius of the site, and it appears that none fall within a one mile radius of the site.

*Legal boundaries.* The legal boundary of the site is listed by latitude, longitude and distance values in Section a)(2).

<u>Access control.</u> The applicant describes the security and access control features to be utilized at the plant.

*Security/Access Control.* DTEW anticipates that access to the site would be managed and supervised by the existing NewPage security personnel in the same manner in which access is currently controlled. This includes limiting access to those personnel which are 1) authorized by NewPage; or 2) accompanied by a NewPage employee. All ingress and egress to the facility is expected to continue to be through the secure, manned gate of the NewPage Paper Mill.

*Location of buildings.* The plant will include one building, which is shown on Map L4 - PROPOSED INTERCONNECTIONS.

<u>Location of access way and internal roads.</u> Access to the DTEW facility will be from US 51, The aerial photograph identified as Appendix L5 — INGRESS AND EGRESS ROUTING, attached hereto identifies the NewPage gate security building and the anticipated internal mill roads that will provide access to the proposed site. While the delivery of additional wood waste for use as fuel for the project is expected to require an average of seven additional trucks per day, no use of railways is anticipated as a result of this project.

<u>Plant utilities.</u> This facility will consist of an existing, biomass-fueled boiler which is currently operating on the NewPage site and the addition of the steam turbine generator proposed herein. Since all of the utilities required by the steam turbine generator already exist in the boiler building adjacent to the proposed construction site, NewPage will provide the utility requirements from the facility from existing sources. Only minor interconnecting piping is expected to be required to supply the steam to the new facility

<u>Compliance with applicable setback requirements.</u> Setback requirements and affirmation of compliance are detailed in section a(7) of the SAR. The State has jurisdiction regarding the

setback requirements because the local governing body has no ordinances, orders, regulations, laws or anything of the sort in place, and is not promulgating such legislation that would affect the setback requirements for the proposed plant. As a result of the location of this project within the boundaries of the NewPage Paper Mill, the proposed site is surrounded on all sides by property owned by NewPage making a setback from the neighboring property impossible. Accordingly, DTEW requested and received a deviation from the requirements outlined in KRS 278.708(3)(a)(7) and KRS 278.704(2) as more fully described in a copy of that request attached as Appendix U.

#### Supplemental Investigations, Research and Analysis

After reviewing the information contained in the applicant's SAR, MACTEC sought additional means (site visits and documents associated with the proposed project) to more fully understand, verify, and supplement the details of the proposed facility description and site development plan.

<u>Surrounding land uses.</u> Visits to the proposed DTEW site verified information contained in the SAR.

<u>Access control.</u> Visits to the proposed DTEW site verified the existing NewPage security and access control processes.

*Location of Buildings.* The location of the one building is shown on Map L4 - PROPOSED INTERCONNECTIONS was verified and was placed in context to the adjacent and surrounding structures within the NewPage facility.

<u>Plant utilities.</u> Visits to the proposed site verified that the steam turbine generator's utility requirements can be met by NewPage once the interconnecting piping between the two facilities has been completed.

#### **Conclusions and Recommendations**

Based upon our review of the applicant's SAR, subsequent conversations with the applicant and/or its legal representatives, and additional data collected by MACTEC and our subconsultants, we have reached the following conclusions and recommendations concerning the description of the proposed facility and site development plan:

- DTEW has generally complied with the legislative requirements for describing the facility and site development plan with the exception of a few iterative details, which should be added to the SAR as they become finalized.
- DTEW correctly identified surrounding land uses as they existed at the time of our review.
- DTEW has followed protocol for establishing and recording accurate legal boundaries.
- DTEW's plan for access control and security lists appropriate measures.
- DTEW has submitted L4 PROPOSED INTERCONNECTIONS map that appropriately shows all buildings to be constructed on site.
- DTEW has submitted L4 PROPOSED INTERCONNECTIONS map that appropriately shows road access to the facility.
- As a result of the location of this project within the boundaries of the NewPage Paper Mill, the proposed site is surrounded on all sides by property owned by NewPage making a setback from the neighboring property impossible. DTEW has been granted a deviation from the requirements outlined in KRS 278.708(3)(a)(7) and KRS 278.704(2) as more fully described in a copy of that request attached as Appendix U.

MACTEC has no recommendations regarding the description of the proposed facility / site development plan.

#### COMPATIBILITY WITH SCENIC SURROUNDINGS

This section of the SAR review addresses the compatibility of the proposed DTEW facility with scenic surroundings. This component of the SAR is identified in KRS 278.708 (3)(b).

#### Applicant's Submittal

No Scenic Impact Study was performed as part of this application. However, the planned turbine building height will be approximately 50 ft. at the highest point and the building immediately to the north is 114 feet tall. The new construction for the proposed facility will occupy a small piece of land on the interior of the NewPage Wickliffe Mill and as such will not be apparent from property outside of the mill itself. DTEW plans to design and construct the steam turbine generator building to blend in with the industrial use buildings surrounding the proposed site.

Given the planned construction of the facility completely within the existing NewPage facility, no additional area beautification measures are planned in conjunction with this project.

The industrial buildings, vegetation and topography within the existing NewPage area and the absence of any direct views to the site leave the proposed DTEW facility compatible with its scenic surroundings.

*Field Investigation.* MACTEC staff traveled the site, and the surrounding area to determine if the power plant site would be visible from US Highway 51 and from all areas of Wickliffe. We also traveled to other locations past the two mile circumference area. We found that the proposed building location is blocked from view due to the height of the existing NewPage buildings and the rolling topography of the general area

## **Conclusions and Recommendations**

The existing buildings within the existing NewPage paper mill area and the absence of any direct views to the site leave the proposed DTEW facility compatible with its scenic surroundings.

MACTEC has no recommendations regarding the compatibility of the proposed facility with its scenic surroundings.

# POTENTIAL CHANGES IN PROPERTY VALUES FOR ADJACENT PROPERTY OWNERS

#### Applilcant's Submittal

Development of this small 13 Megawatt generator should raise no issues related to potential changes in property values for nearby property owners.

#### Field Investigation

In examining the proposed location for this power plant the MACTEC review team visited the area, viewing the proposed location of the generating station and the surrounding areas.

The site of the proposed generating station is located within the properties owned by NewPage, south of Wickliffe, Kentucky. The site is located on land that is an existing paper mill.

According to information provided by the developer no portion of the proposed facility will be visible off-site. The details of this issue are addressed elsewhere in this report. The MACTEC review team made an on-site inspection of the facility location. Visibility off-site is buffered by the existing paper mill.

## **Conclusions and Recommendations**

It would appear that the construction of the proposed generating station will have no discernable impact on surrounding non-industrial properties.

MACTEC has no recommendations regarding potential changes in property values for adjacent property owners.

## EXPECTED NOISE FROM CONSTRUCTION AND OPERATION

## Anticipated Noise Levels from Construction and Operation

This section of the SAR review addresses the anticipated peak and average noise levels associated with the construction and operation of the proposed DTEW. This component of the SAR is identified in KRS 278.708 (3)(a)(8) and (3)(d).

## Standard Methodology and Issues for Noise Studies

Various government and private agencies around the country utilize noise assessment methodologies based on accepted and published techniques. In general these methods are meant to estimate the increase in noise levels caused by various activities above the existing ambient noise levels of the study area.

The typical noise study is accomplished by:

- Identifying nearby sensitive receptors such as residences, schools, churches, parks, etc.;
- Measuring existing ambient noise levels;

- Estimating construction and operation noise levels;
- Calculating the total noise levels due to both the existing ambient levels and the estimated construction and operation level.

In the case of the DTEW project, noise concerns are expected to be associated with construction of the facility and operational activities.

## **Applicant's Submittal**

## DTEW did not perform a noise evaluation

*Field Investigation.* MACTEC staff traveled the site, and the surrounding area to determine if any residences or other sensitive receptors might be near the facility. No sensitive receptors were found to be nearer than 5,000 feet at that time. Also, due to the existing, much taller, buildings surrounding the proposed site at the paper mill, the dense vegetation surrounding the site and due to the rolling topography of the area, it can be anticipated that some level of natural attenuation of noise levels will be achieved.

#### **Conclusions and Recommendations**

Based upon MACTEC's field visit, we conclude that the construction and operation of the DTEW site should have minimal noise impacts upon nearby residences and other sensitive receptors. The following is MACTEC's only recommendation dealing with the noise issue.

• It is recommended that the walls of the turbine building be insulated to reduce noise levels.

## IMPACTS ON LAND-BASED TRANSPORTATION

#### **REVIEW OF TRAFFIC EVALUATION**

#### Introduction

This section of the SAR review involves the Traffic Evaluation, and examines the impacts the proposed DTEW will have on the existing roadway system, in this case US 51.

#### **Background Information**

Access to the DTEW facility will be from US 51. No new access roads will be required. US 51 is a two-lane undivided rural road in rolling terrain. The KyTC defines US 51 as a rural principal arterial which can carry substantial statewide or interstate travel. The KyTC further defines US 51 as able to provide service to most areas with a population of at least 25,000 and all urban areas with a population of 50,000 or more. The KyTC divided the rural principal arterial system into two sub-classes; Interstates, roads designated as interstate routes located outside urban areas, and Other Principal Arterials as non-interstate principal arterials outside urban areas. US 51 is also considered a part of the State Primary System which the KyTC defines as Interstates, parkways and other long-distance, high-volume intrastate routes that are of statewide significance. These routes generally link major urban areas with the state. The existing Average Daily Traffic (ADT) on US 51 is 5,939 vehicles per day (vpd) as indicated on a 2002 traffic count furnished by the KyTC.

#### **Applicant's Submittal**

New Access. No new access road will be required.

*Existing Traffic.* The SAR does not reference existing traffic on US 51.

<u>Generated Traffic.</u> During construction, site labor is expected to peak at approximately 80 personnel. Truck traffic is expected to be 7 additional trucks per day during operation. The NewPage paper mill currently receives approximately 300 trucks per day.

*<u>Traffic Analysis.</u>* DTEW did not perform a traffic analysis.

#### **Reviewer's Supplemental Investigation and Analysis**

After reviewing the written Traffic Evaluation Section of the SAR, MACTEC met DTEW and others at the site for a field review. At that time the above information was collected. MACTEC further collected the KyTC definitions of road type for US 51 and the traffic count data.

#### **Conclusion and Recommendations**

Based on MACTEC's site visit and review of information provided to us, we conclude that the construction and operation of the DTEW site should have minimal impact on land-based transportation.

The following is MACTEC's only recommendation dealing with the land transportation issue:

 It is highly recommended that the starting work times for the construction workers be staggered with the shift schedule of the NewPage plant personnel.

### **SECTION D**

#### CONCLUSIONS AND RECOMMENDATIONS

This section presents our recommendations concerning the proposed DTEW project, including recommendations for further mitigation measures. The MACTEC team provides specific recommendations on the elements of the SAR, as presented in Section C, which the Board might consider before arriving at a decision on DTEW's pending application for construction certification.

#### **Specific Mitigation Recommendations Related to SAR Elements**

The following recommendations are based on the MACTEC team's review of the SAR, additional information obtained both prior to and during this review, and discussions with DTEW personnel.

#### Description of Proposed Facility/Site Development Plan

Based upon our review of the applicant's SAR, subsequent conversations with the applicant and/or its legal representatives, and additional data collected by MACTEC, we have reached the following conclusions and recommendations concerning the description of the proposed facility and site development plan:

- DTEW has generally complied with the legislative requirements for describing the facility and site development plan with the exception of a few iterative details, which should be added to the SAR as they become finalized.
- DTEW correctly identified surrounding land uses as they existed at the time of our review.
- DTEW has followed protocol for establishing and recording accurate legal boundaries.
- DTEW's plan for access control and security lists appropriate measures.
- DTEW has submitted L4 PROPOSED INTERCONNECTIONS that appropriately shows all buildings to be constructed on site.

- DTEW has submitted L4 PROPOSED INTERCONNECTIONS that appropriately shows both road and rail access to the plan.
- Due to the planned facility being totally within an existing facility, DTEW has requested and received a deviation from applicable setback requirements.

<u>Compatibility with Scenic Surroundings</u>. The existing paper mill, vegetation and topography and the absence of any direct views to the site leave the proposed DTEW facility compatible with its scenic surroundings. Therefore, no recommendations are deemed necessary or appropriate.

<u>Potential Changes in Property Values for Adjacent Property Owners</u>. Based upon MACTEC's site visit to the subject site, the team concludes that adjacent property values will not be adversely affected, and no recommendations are deemed necessary or appropriate.

<u>Expected Noise Levels from Construction and Operation</u>: Based upon MACTEC's field visit, we conclude that the construction and operation of the DTEW site should have minimal noise impacts upon nearby residences and other sensitive receptors. MACTEC has only a single recommendation to further reduce the likelihood of adverse noise during operation of the facility.

 It is recommended that the walls of the turbine building be insulated to reduce noise levels on the outside of the building.

<u>Impacts of Land-based Transportation</u>. Based on review of the SAR and MACTEC's field visit, we conclude that nearby traffic will not be adversely affected. However, in order to further minimize the impact of the additional workforce during construction, MACTEC has a single recommendation.

 It is highly recommended that the starting work times for the construction workers be staggered with the shift schedule of the NewPage plant personnel.

#### **Overall Conclusions Concerning Siting Issues Related to the Proposed DTEW Project**

After reviewing and evaluating the applicant's SAR, visiting the site, gathering additional information and conducting further analyses, where necessary, the MACTEC makes the following final conclusions concerning the siting aspects of the proposed DTEW project:

- A. While we have noted a number of deficiencies in the SAR, we believe these have been primarily addressed in this report. We do not believe additional data will change the outcome of this report.
- B. Presuming the project is developed as specified in the applicant's SAR and as presented in supplemental information provided by the applicant, and presuming the recommendations and mitigation measures provided herein are implemented by the applicant, we do not believe there will be any significant unmitigated impacts from the development and operation of the DTEW facility within the topic areas specified in the SAR.