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Sent: Wednesday, November 5, 2025 12:59 PM
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Cc: Preston Bradley; Katherine Mertes; Jaricus Whitlock; Jeffrey Bland; mrao@trinityconsultants.com; Brian Ketchum; Slater Smith; Shannon Lynn
Subject: MZK PSD Modeling Protocol
Attachments: MZX Tech MS Modeling Protocol (2025-1105, final).pdf

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Rodney,

Many thanks to you and your team on your reviews and discussion of our draft PSD modeling protocols for MZK's proposed facility in Southaven, MS. Attached please find the final version of the protocol which reflects our discussions and your comments. Once we receive your approval, we will proceed with submitting the final PSD modeling analysis for your review.

Best Regards,

Jon

Jonathan Hill

Managing Consultant/Meteorologist



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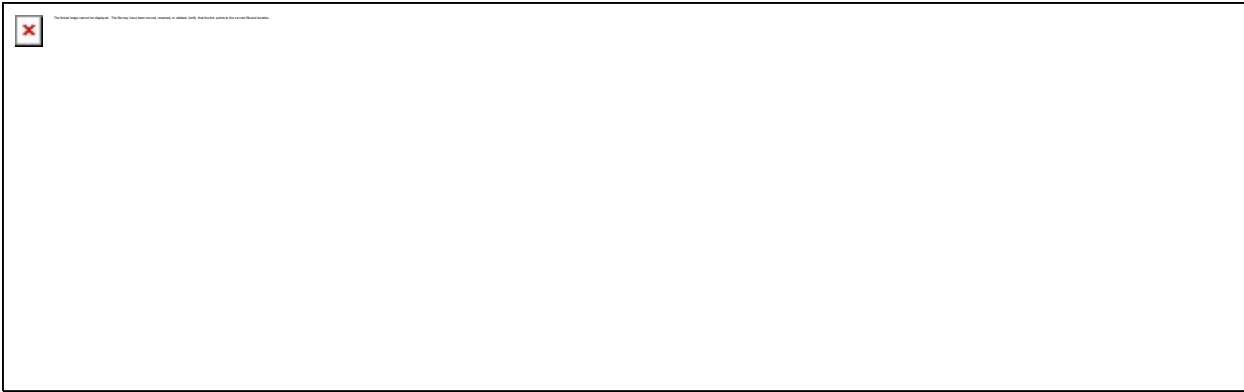
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PSD MODELING PROTOCOL

Greenfield Simple Cycle Combustion Turbine Project

**MZX Tech LLC
Southaven, MS**

Prepared by:

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November 2025

Project 250401.5102



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1. INTRODUCTION

MZX Tech LLC (MZX) is proposing to construct and operate a new greenfield major source consisting of simple cycle combustion turbines and pressure reduction systems (the “Facility”) that will provide electricity to its data center located in Shelby County, Tennessee. The Facility will be located at 2875 Stanton Rd S, DeSoto County, Southaven Mississippi. Three (3) turbine models will be used for the site, the Solar PGM-130, Solar Titan 350, and Proenergy 6000 PE. Additionally, ten (10) PLUM Pressure Reduction Systems (PRSS) will be installed to regulate the pressure of incoming natural gas and condition the natural gas for use in the combustion turbines. The CT units and PRS units will fire natural gas as fuel.

The proposed project will require a Prevention of Significant Deterioration (PSD) permit as a new major source. Project-related emissions are anticipated to exceed the PSD significant emission rate (SER) thresholds for total particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}), total particulate matter with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$), nitrogen oxides (NO_x), volatile organic compounds (VOC), sulfur dioxide (SO_2), carbon monoxide (CO), and greenhouse gases (GHG) in terms of carbon dioxide equivalents (CO_2e). Therefore, the PSD permit for the Facility will require an air quality/dispersion modeling analysis to demonstrate that the Facility will not cause or contribute to an exceedance of a National Ambient Air Quality Standard (NAAQS) or PSD increment.

A dispersion modeling protocol has been prepared following available policy and guidance. Trinity Consultants (Trinity), on behalf of MZX, has prepared this protocol describing the proposed methodologies and data resources to be used for any modeling compliance demonstration for the potential project. This protocol includes an overview of the required PSD modeling analyses, and a detailed description of the methodology proposed. The analyses include evaluation and consideration of NAAQS, PSD Increment, additional impacts analyses, visibility and non-air quality impacts, as well as consideration of impacts to Class I Areas.

The following figures show the approximate location of the proposed MZX facility, as well as the approximate facility boundary area that would be utilized in the modeling analysis.