



June 4, 2020

**To Whom It May Concern**

My name is Brajendra Mishra and I am a Distinguished Professor of Materials Science & Engineering at the Worcester Polytechnic Institute. I also serve as the Director of the NSF Center for Resource Recovery & Recycling as well as the Director of Materials & Manufacturing Engineering at WPI. I served at the Colorado School of Mines for twenty-five years as a Professor in Extractive Metallurgy.

I am writing today in support of the proposed Waelz Sustainable Products (WSP) project in Indiana and to shed some light on the Waelz kiln process as both a scientist and an expert in process metallurgy.

I have had the opportunity to become acquainted with WSP over the past year, participating in a number of global conferences, both in the United States and abroad, where WSP representatives presented the project to myself and other members of the global metallurgical industry for review. The consensus amongst my colleagues is that the proposed project is safe, state-of-the-art and represents a model for other companies to emulate as the global economy seeks greener, more sustainable industrial solutions.

For nearly a century, the Waelz kiln process has been used to extract Crude Zinc Oxide from Electric Arc Furnace Dust (EAFD). Over time, this process has been refined and improved to the point that the United States Environmental Protection Agency (EPA) recognizes the Waelz Kiln process as the Best Available Technology for treating EAFD. A modern facility like WSP is safe, environmentally sound and produces a negligible amount of emissions.

The mitigation and capture technologies outlined for use at the WSP facility contribute to the low level of emissions typically associated with these facilities. Unlike other industry, the recycling of EAFD for the purpose of extracting zinc and iron is unique in that the facility is directly incentivized to capture the maximum amount of particulate matter possible, reducing the loss of products and emissions, further decreasing any negative impact on the surrounding community.

Another key component of the sustainable success story of the Waelz process is that it has no byproducts. The process is able to successfully extract from the EAFD zinc oxide and iron concentrate without generating waste – contributing to its broad appeal as an alternative to landfilling and mining.

As a professor of Materials Science and as a practicing process metallurgist at WPI, I have reviewed the relevant facts and support WSP. I am confident that anyone who has done the same will be able to follow the facts to the same conclusion.

Sincerely,

A handwritten signature in blue ink that reads "B. Mishra".

Brajendra Mishra, FASM and FTMS  
Kenneth G Merriam Professor of Materials Science & Engineering  
Director, Metal processing Institute & Materials & Manufacturing Engineering