



RICH FITZGERALD
COUNTY EXECUTIVE

Air Quality Program

301 39th Street, Clack Health Center Building 7, Pittsburgh, PA 15201-1811
 ph: 412.578.8103 • 24-hr: 412.687.ACHD (2243) • www.alleghenycounty.us/healthdepartment

SUBMISSION FORM – AIR POLLUTION MITIGATION PLAN

APPLICANT INFORMATION

The Air Pollution Mitigation Plan is submitted by affected facilities to meet the requirements of Allegheny County regulations found in §2106.06 (Mon Valley Air Pollution Episode) of Article XXI.

01 Facility Information

Name of Facility **TMS International, LLC at US Steel, Edgar Thomson**

Address **1300 Braddock Ave**

City State Zip+4 **Braddock PA, 15104-1743**

Permit # **0225a and 0225-I002** Phone **412-271-4430**

02 Environmental Contact Information (Person to contact regarding technical details of this mitigation plan)

Name/Title **Frank Dello Buono / Environmental Engineer**

Address **1155 Business Center Drive, Suite 200**

City State Zip+4 **Horsham, PA 19044-3454**

Email **fdellobuono@tmsinternational.com** Phone **(215) 360-9723**

03 Responsible Official Information

Name/Title **Jerimi Yost / Global Director HSE**

Address **1155 Business Center Drive, Suite 200**

City State Zip+4 **Horsham, PA 19044-3454**

Email **jyost@tmsinternational.com** Phone **(215) 956-5444**



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04

AFFIDAVIT

I certify that, subject to the penalties of Title 18Pa. C.S.A. Section 4904 and 35 P.S. Section 4009(b)(2), I am the responsible official having primary responsibility for the operation of the facilities to which this air pollution mitigation plan applies and that the information provided in this mitigation plan is true, accurate and complete to the best of my knowledge, information and belief formed after reasonable inquiry.

Signature: 

Date 3/2/2022

Typed/Printed Name: Jerimi Yost





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05 List all equipment or processes at your facility that emit PM₁₀ and/or PM_{2.5}

Material processing plant, screening plant, screening plant engine, oxygen lancing, plant roads, pot dumping/digging, drop ball breaking, crusher, and crusher engine.

WATCH PHASE OF MITIGATION PLAN

06 How will your facility ensure that equipment which produces particulate emissions is operating in a manner consistent with optimal engineering practices?

The facility will maintain a maintenance log of operation equipment. The facility will ensure that production will stay below the maximum capacity for each of the following: Material processing plant 613,000 tons/year or 645 tons/hour, Screening plants 384,964 tons/year or 405 tons/year, Lancing at 8,500 tons/year, Pot dumping and digging at 613,000 tons/year, crushing 15,000 tons/year or 100 tons/hour, and drop ball breaking at 84,595 tons/year.

07 How will your facility ensure that air pollution control equipment is maintained in optimal working condition?

Records of operations will be maintained to demonstrate compliance with production rates and material types to minimize particulate emissions, in optimal working conditions.

08 How will your facility ensure that actions taken in blocks 05 and 06 are properly monitored, recorded, and reported to the Health Department?

Compliance certifications are submitted on a semiannual and annual basis to ensure optimal engineering practices. Inventory statements are also submitted annually.



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WARNING PHASE OF MITIGATION PLAN

09 How will your facility ensure that procedures are in place so enough staff and resources are available to implement the Mon Valley Air Pollution Warning Phase within 24 hours of the notification from ACHD?

The site operates 24/7 with supervisors on site at all times. Supervisors have call in lists if additional staff or resources are needed. TMS operations depend on the production of US Steel, Edgar Thomson. In coordination with US Steel, Edgar Thomson any change in US Steel, Edgar Thomson production rate during the Mon Valley Air Pollution Warning Phase will reduce our production rate; thus decreasing emissions.

10 For every process and piece of equipment, list all available methods to reduce PM_{2.5}/PM₁₀ emissions from your four-year hourly average. During an actual warning phase, the actions to reduce emissions must last the length of the episode.

The following actions will be taken to reduce PM₁₀/PM_{2.5} emissions during warning phase:

Material Processing (P001): Estimated reductions of 0%.

Removed Trial Metal Recovery Plant (P002)/Proposed Screening Plant (P001a): Estimated reductions of 0%.

Oxygen Lancing (P003): Estimated reduction of 50%.

Pot Dumping/Digging (P005): Estimated reduction 0%.

Portable Crusher (P006): Estimated reduction 50%.

11 For each piece of equipment and process, determine which emission reduction methods are feasible. List whether each method is feasible or infeasible and provide a justification for your determination.

Pot Dumping/Digging is governed by US Steel, Edgar Thomson’s production. US Steel, Edgar Thomson’s Blast Furnaces operate most efficient and least emissive when operated at steady state. Altering the production schedule /process at the Blast Furnace can cause instability in the furnace which can result in more emissions and unsafe conditions. It is not feasible to reduce production from pot dumping and digging operations as they must operate at maximum production to maintain the production schedule of US Steel, Edgar Thomson. The only feasible practice during a warning phase will be to implement additional watering and ensuring environmental work practices are being followed to minimize emissions.

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Emission reductions from the Slag Processing Plant and Screening Plant are infeasible due to having to keep up with the pot dumping/digging operation. Storage space for excess slag is limited. Emission reduction techniques that are feasible include: ensuring environmental work practices are being followed, utilizing water sprays to maintain optimal slag moisture content, observing visible emissions daily, and maintaining daily maintenance logs of equipment during warning phase.

Reducing the production of the Oxygen Lancing operation by 50% is feasible while ensuring environmental work practices are being followed to minimize emissions. A complete shutdown is infeasible due to contractual obligations.

Reducing the production of the Portable Crusher by 50% is feasible while ensuring environmental work practices are being followed and utilizing water sprays to maintain optimal slag moisture content to minimize emissions. A complete shutdown is infeasible due to contractual obligations.

12 How will your facility ensure that actions taken in block 10 are properly monitored, recorded, and reported to the Health Department?

Compliance certifications will be submitted on a semiannual and annual basis to ensure optimal engineering practices and air pollution mitigation plans are properly monitored, recorded, and reported to the Health Department. Management will update daily, weekly, and monthly records to note whether a Mon Valley Air Pollution Warning Phase occurred, and the actions taken, if applicable.

13 Provide an active spreadsheet containing the following:

- Calculations of your facility's PM_{2.5} and PM₁₀ emissions for each of the past four years (2017-2020) in tons/year for every piece of equipment and process;
- Calculation of average four year emissions of PM_{2.5} and PM₁₀ in lbs/hr for each piece of equipment and process;
- Feasible PM_{2.5} and PM₁₀ emission reductions in lbs/hr that will occur during a warning phase for every piece of equipment and process as well as the facility total; and
- Feasible PM_{2.5} and PM₁₀ emission reductions in percent reduced from the hourly four year average for every piece of equipment and process as well as the facility total percent reduction. **Approximately a 39.76% reduction of the facility total for PM₁₀ and 46.80% for PM_{2.5}.**

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This spreadsheet will be used to calculate actual emission reductions that will be reported to the Health Department after warning phases have ended.

14 How much time will be required for your facility to implement the emission reductions in block 10?

Implementation of emission reductions will take immediate effect.



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INSTRUCTIONS	
Submission Form for the Air Pollution Mitigation Plan	
<u>Block 01</u> Facility Information	The facility name for the operation at that particular address should be used and not the name of the larger corporation. Use the address for the actual facility and not the company headquarters, if different. The most recent permit number should be included. If it is not known, it can be left blank.
<u>Block 02</u> Environmental Contact Information	Fill in the contact information of the individual (e.g. employee or consultant) who will be contacted to provide environmental technical information for the Air Pollution Mitigation Plan
<u>Block 03</u> Responsible Official Information	This address and phone number are for the office where the responsible official works the majority of the time. See block 04 instructions for information regarding the responsible official.
<u>Block 04</u> Affidavit	This affidavit must be signed by the responsible official. A Responsible Official is a President, Vice President, Secretary, Treasurer, General Partner, General Manager, a member of a Board of Directors, or Owner, depending on business structure. CORPORATION – President, Vice President, Secretary, Treasurer, or duly authorized person BUSINESS – Sole Proprietor or General Partner GOVERNMENT ENTITY – Ranking elected official or principal executive officer
<u>Blocks 05–08</u> Watch Phase of Mitigation Plan	The responses that you provide in blocks 05 through 08 will be specific to your equipment and facility. Below are some general ideas that may help you in how to approach these requirements. <ul style="list-style-type: none"> • Staff related <ul style="list-style-type: none"> • Review procedures with employees to ensure all equipment is properly operating in a way to minimize air emissions. • Schedule additional or on-call employees for upcoming shifts to ensure facility is fully staffed for a warning phase. • Conduct a shift meeting(s) to remind employees to prioritize the environmental impact of their operations to reduce emissions. • Share any other procedures which would help ensure sufficient staff levels and available resources to implement a warning phase. • Equipment related



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	<ul style="list-style-type: none"> • Inspect any equipment or processes which may have a potential to increase emissions to ensure proper operation and maintenance. • Implement improved operation and maintenance practices beyond standard operating procedures. • Ensure the facility is following the idling requirements under Act 124 of the PA Department of Environmental Protection regulations. • Conduct maintenance on all pollution control equipment. • Share any other procedures which help ensure the facility is operating in a manner consistent with good engineering practices. • Share any other procedures which help ensure the air pollution control equipment is maintained in good working condition.
<p><u>Block 09</u> Warning Phase of Mitigation Plan</p>	<p>A good starting point in completing this block is to refer to the table found in section II of your facility’s air quality permit titled “Emission Unit Identification” and identify which units emit particulate matter. There may be other equipment, not listed in the section II table, that can be included in the block 09 list.</p>
<p><u>Block 10</u> Warning Phase of Mitigation Plan</p>	<p>Block 10 should explain what actions the facility could possible take to ensure that hourly emissions are reduced.</p> <p>Possible methods include:</p> <ul style="list-style-type: none"> • Reduction in material throughput • Reduction in operating time • Increased use of controls or suppression equipment • Changes in raw materials <p>Examples of possible actions include:</p> <ul style="list-style-type: none"> • Reduce production by a certain percentage or rate from normal operating conditions. A reduction from a potential maximum production rate will not be accepted if it is too high compared to normal operating rates for the relevant time period, thereby not resulting in an actual reduction in pollution. • Reduce usage of diesel fuel or other PM_{2.5} or PM₁₀ creating fuel types or switch fuel types to lower PM_{2.5} or PM₁₀ as allowed by the relevant permits. • Bring in additional employees to allow the facility to operate in the best environmentally responsible manner. • Delay production to a future day when a mitigation plan is not needed. • Delay any non-essential activities to a future day when a mitigation plan is not needed.



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	<ul style="list-style-type: none"> • Fully or partially enclose material movement and other work activities which produce dust and other particulate matter (PM_{2.5} or PM₁₀ emissions). • Modify work practices to decrease PM_{2.5} or PM₁₀ emissions such as: <ul style="list-style-type: none"> ○ Slowing material handling ○ Fully or partially enclose material movement and other work activities which produce dust and other particulate matter (PM_{2.5} or PM₁₀ emissions). • Stop or decrease unnecessary transportation activities and reduce travel speed on necessary transportation. • Employ additional roadway wetting or other activities to minimize road dust creation. • Add any other measures which reduce PM_{2.5} or PM₁₀ emissions.
<p><u>Block 11</u> Warning Phase of Mitigation Plan</p>	<p>Emission reduction methods that are feasible can be eliminated from consideration for other reasons as long as adequate justification is given.</p>
<p><u>Block 12</u> Warning Phase of Mitigation Plan</p>	<p>The Health Department will require a report, submitted after the warning phase has ended, itemizing what actions were taken to meet the requirements of the warning phase.</p>
<p><u>Block 13</u> Warning Phase of Mitigation Plan</p>	<p>The spreadsheet must include actual plant emissions of PM_{2.5} and PM₁₀ for all equipment listed in block 09 for each of the past four years (2017-2020) in tons/year. These calculations can be copied directly from the spreadsheets submitted to the Health Department for emissions inventories.</p> <p>For each piece of equipment and process, emissions from the last four years must be provided in tons/year.</p> <p>For each piece of equipment and process, proposed feasible emission reductions must be provided in lbs/hr.</p> <p>The hourly average will be calculated for each unit and process by adding yearly emissions together and dividing by the total number of hours that the unit emitted over four years.</p> <p>In the case of a batch process, calculations will need to take into account the number of hours in each batch and the number of batches in a year.</p>

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<p><u>Block 14</u> Warning Phase of Mitigation Plan</p>	<p>Section 2106.06 of county air quality regulations requires that an affected facility is able to implement the requirements of the warning phase within 24 hours.</p>
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Mitigation Plan Checklist

The following checklist is provided as a list of items required for a complete mitigation plan submission. If at any time you have questions about your application, please call JoAnn Truchan 412-578-7981 or Jayme Graham 412-578-8129.

- Has the responsible official signed and dated the first page (block 04)?
- Have you provided an active spreadsheet showing actual emissions for every piece of equipment and process of PM_{2.5} and PM₁₀ for the past four years in tons per year?
- Does the spreadsheet include the average actual PM_{2.5} and PM₁₀ emissions from every piece of equipment and process for the past four years in lbs/hr?
- Does the spreadsheet include the PM₁₀ and PM_{2.5} reduction that will be achieved from every piece of equipment and process in lbs/hr and % from the four year hourly average during the warning phase?
- Have you provided a complete response for each of the fourteen blocks?



