COUNTY OF ALLEGHENY

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	**ELG Metals, Inc**		
Address	**369 River Road**		
City State Zip+4	**McKeesport, PA 15132**		
Permit #	**0683-OP20**	Phone	**412-672-9200**

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

Name/Title	**Joe Fisher - Manager HSR**		
Address	**369 River Road**		
City State Zip+4	McKeesport, PA 15132		
Email	**joe.fisher@elgmetals.com**	Phone	**412-664-3563**

03 Responsible Official Information

Name/Title	**Joe Fisher - Manager HSR**		
Address	**369 River Road**		
City State Zip+4	McKeesport, PA 15132		

DEBRA L. BOGEN, MD, DIRECTOR
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Email	**joe.fisher@elgmetals.com**	Phone	**412-664-3563**

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 responsible official having primary responsibility for the operation of the facilities to which this air pollu mitigation plan applies and that the information provided in this mitigation plan is true, accurate and complet the best of my knowledge, information and belief formed after reasonable inquiry.

Signature: **Date**

Typed/Printed Name: **Joe Fisher**

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05 List all equipment or processes at your facility that emit PM_{10} and/or $PM_{2.5}$

Scrap Cutting and Burning w/ Burning Bars
Stainless Steel Cutting

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?

Record pressure drop on baghouse for scrap cutting and burning w/ burning bars on all days where a Watch is issued

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

HSE Coordinator, Operations Manager, or HSR Manager will inspect baghouse prior to beginning operations during a Watch Phase.

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

HSE coordinator, Operations Manager, or HSR Manager will record the pressure drop readings & review the logs during a Watch Phase

Will submit records as requested by ACHD

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?

Operations manager, HSR Manager, and Site HSE Coordinator will be added to the ACHD notification system. All 3 persons have the authority to implement procedure modification

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

Process	Emission Reduction Method
Stainless Steel Cutting	Reduction of operations hours by 50%
Stainless Steel Cutting	Shut down operations
Scrap cutting/burning w/ burning bars	Bag House operations – Already in place to capture emissions from this operations
Scrap cutting/burning w/ burning bars	Shut down operations

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.

Process	Emission Reduction Method	Determination	Justification
Stainless Steel Cutting	Reduce operations hours by 50%	Feasible	Will temporarily be able to still meet customer demands at 50% operational capacity
Stainless Steel Cutting	Shut down operations	Infeasible	Will not be able to meet customers demands if completely shutting down operations

Scrap cutting/burning w/ burning bars	Operate bag house	Feasible	Already being conducted
Scrap cutting/burning w/ burning bars	Shut down operations	Ineffective	With bag house in place, emissions are already captured & will not cause reduction

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

- **Add HSE Coordinator & Operations Manager to ACHD notification system**
- **Limit stainless steel cutting operations to 7am to 11am on days where a Warning Phase notice is issued**
- **During pre-operations inspection, conduct a meeting with the torch cutting employee to inform them of the process change for the duration of the Warning Phase**
- **Inspect Bag House for any faults**
- **Do not engage in scrap cutting/burning w/ burning bars if the Bag House has any faults**

13 Provide an active spreadsheet containing the following:

- Calculations of your facility's $PM_{2.5}$ and PM_{10} 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 PM_{10} in lbs/hr for each piece of equipment and process;
- Feasible $PM_{2.5}$ and PM_{10} 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 PM_{10} 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.

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?

Process	Emission Reduction Method	Implementation Timeframe
Stainless Steel Cutting	Reduce operations hours by 50%	30 days
Scrap cutting/burning w/ burning bars	Operate bag house	Immediately

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INSTRUCTIONS Submission Form for the Air Pollution Mitigation Plan	
Block 01 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.
Block 02 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
Block 03 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.
Block 04 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

Blocks 05–08
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.
	
	• Staff related
	  • 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
	  • 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.

Block 09 Warning Phase of Mitigation Plan	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.

Block 10
Warning Phase of Mitigation Plan
	Block 10 should explain what actions the facility could possible take to ensure that hourly emissions are reduced.
	
	Possible methods include:
	• Reduction in material throughput
	• Reduction in operating time
	• Increased use of controls or suppression equipment
	• Changes in raw materials
	
	Examples of possible actions include:
	
	• 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 PM_{10} creating fuel types or switch fuel types to lower $PM_{2.5}$ or PM_{10} 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.
	• Fully or partially enclose material movement and other work activities which produce dust and other particulate matter ($PM_{2.5}$ or PM_{10} emissions).
	• Modify work practices to decrease $PM_{2.5}$ or PM_{10} emissions such as:
	  ○ Slowing material handling
	  ○ Fully or partially enclose material movement and other work activities which produce dust and other particulate matter ($PM_{2.5}$ or PM_{10} 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 PM_{10} emissions.

Block 11 Warning Phase of Mitigation Plan	Emission reduction methods that are feasible can be eliminated from consideration for other reasons as long as adequate justification is given.

Block 12 Warning Phase of Mitigation Plan	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.
Block 13 Warning Phase of Mitigation Plan	The spreadsheet must include actual plant emissions of $PM_{2.5}$ and PM_{10} 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. For each piece of equipment and process, emissions from the last four years must be provided in tons/year. For each piece of equipment and process, proposed feasible emission reductions must be provided in lbs/hr. 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. 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.
Block 14 Warning Phase of Mitigation Plan	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.

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 PM_{10} for the past four years in tons per year?

□ Does the spreadsheet include the average actual $PM_{2.5}$ and PM_{10} emissions from every piece of equipment and process for the past four years in lbs/hr?

□ Does the spreadsheet include the PM_{10} 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?

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ELG Metals, Inc.
ACHD Air Pollution Mitigation Plan Submission - Block 13

Emission Source		Actual Hours of Operation (hr/yr)				
		2017	2018	2019	2020	2017-2020 Average
P001	Controlled Scrap Burning and Cutting	632.5	620	736.5	708.5	674.4
P001	Uncontrolled Stainless Steel Cutting	1804.25	1882.5	1799.25	1633.5	1,779.88

Emission Source		Actual Throughput[1] (lb steel/yr)				
		2017	2018	2019	2020	2017-2020 Average
P001	Controlled Scrap Burning and Cutting	113,610	42,549	134,150	275,800	141,527
P001	Uncontrolled Stainless Steel Cutting	56,896	43,904	66,976	138,656	76,608
P001	**Total Raw Material**	**568,050**	**212,746**	**670,750**	**1,379,000**	**707,637**

Emission Source		Emission Factor[2]	PM/PM_{10} Actual Emission Rate[3][4] (ton/yr)					PM/PM_{10} Actual Emission Rate (lb/hr)	Feasible PM/PM_{10} Reduction[5]	
			2017	2018	2019	2020	2017-2020 Average	2017-2020 Average	(lb/hr)	(%)
P001	Controlled Scrap Burning and Cutting	1.71 lb/hr	0.5408	0.5301	0.6297	0.6058	0.5766	1.7100	1.7100	0%
P001	Uncontrolled Stainless Steel Cutting	1.60E-04 lb/lb steel	0.0046	0.0035	0.0054	0.0111	0.0061	0.0069	0.0034	50%
	Emergency Generator	negligible	--	--	--	--	--	--	--	--
	Paved Roadways	negligible	--	--	--	--	--	--	--	--
TOTAL		**--**	**0.5453**	**0.5336**	**0.6351**	**0.6169**	**0.5827**	**1.7169**	**1.7134**	**--**

[1] 20% of raw material is reduced via lance torching (controlled scrap burning and cutting). Uncontrolled stainless cutting throughput provided by facility personnel.

[2] Emission Factors from Permit #0683-OP20 Technical Support Document. All PM emitted is assumed to be PM_{10}. No $PM_{2.5}$ is generated.

[3] Actual PM/PM_{10} Annual Controlled Scrap Burning and Cutting Emission Rate (ton/yr) = Emission Factor (lb/hr) * Operation (hr/yr) / 2000 lb/ton.

[4] Actual PM/PM_{10} Annual Uncontrolled Stainless Steel Cutting Emission Rate (ton/yr) = Emission Factor (lb/lb) * Operation (lb/yr) / 2000 lb/ton.

[5] Feasible PM/PM_{10} emission reduction from the four year average that will occur during a warning phase. Reductions at this facility can only occur by shutting down operations. Scrap burning and cutting is already controlled.