

Authored By: Bob Harris	Blanchard Refining Company LLC Galveston Bay Refinery ENV-39 Abrasives Blasting Management	Doc No.: REW-000019-GB Rev No: 0
Doc Custodian: Environmental Supervisor		Refinery Safe Work Procedure
Approved By: Eric Kaysen		
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1.0 Purpose

The purpose of this procedure is to define the environmental requirements for the management of abrasive blasting work being performed throughout the Blanchard Refining Galveston Bay Refinery (GBR) and Docks areas. Abrasive blasting surface preparation activities generate air particulate emissions and spent blasting media is considered a solid waste. Abrasive blasting activities are regulated by the Texas Commission on Environmental Quality (TCEQ), and may be regulated by the United States Environmental Protection Agency (US EPA) if the spent blasting media meets the definition of a hazardous waste.

2.0 Scope

This procedure applies to all abrasive blasting activities taking place at the GBR and Docks operating areas, including storage, maintenance, infrastructure, and contractor facilities.

3.0 Procedure

3.1 Roles and Responsibilities

- 3.1.1 Craft Personnel (GBR and Contractor) is responsible for adhering to procedure and regulations regarding abrasive blasting activities of its organization and contractors including recordkeeping requirements. GBR Maintenance Supervisors are responsible for notifying the Environmental Department when spent blasting/abrasive media shall be generated and providing equipment to load spent blasting media into containers.
- 3.1.2 Craft Personnel are responsible for requesting approval for any new outdoor abrasive cleaning facilities.
- 3.1.3 GBR Maintenance Supervisors shall contact the Environmental Department for proper characterization, labeling, disposal and information.
- 3.1.4 The Environmental Department is responsible for coordinating containers for storage of spent blasting media, properly classifying and disposing of the spent blasting/ abrasive media and for periodically auditing records.

3.2 Air Emission Control Requirements

- 3.2.1 Requirements for New, Dry, Outdoor Abrasives Cleaning:
 - 3.2.1.1 Outdoor abrasive cleaning shall not be conducted when wind speed exceeds thirteen (13) miles per hour (MPH).
 - 3.2.1.2 Construction of new permanent or temporary abrasive blasting yards, outdoor, abrasives cleaning facilities has to be pre-approved by the Environmental Department before construction begins. Facilities meeting certain requirements (blasting grit usage below 1 ton/day, 15 tons/month and 150 tons/year) can potentially be authorized under a permit by rule (PBR). Check with Environmental to see if the new or temporary sandblasting operation meets the requirements.
 - 3.2.1.3 Outdoor abrasive blasting shall be performed at least 500 feet away from any recreational area, residence or other structure not occupied, owned or operated by GBR. This includes bodies of water. Water abrasives cleaning is required if surface preparation shall occur in these areas.
 - 3.2.1.4 Records shall be maintained of operating hours (blasting hours) and abrasive material usage (tons/day). These records shall be kept for at least 5 years at the facility. The forms shall be maintained in the Open Text database. Forms to be used for these records are included as Attachment B and shall be sent via email to the Environmental Department's TRI Coordinator on a quarterly basis. The required dates are March 5, June 5, September 5 and December 5. The Environmental TRI Coordinator can be located on the Environmental

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SharePoint Site.

- 3.2.1.5 Operations involving in situ blasting (in pipe racks, process areas, tanks, etc.) near a fenceline, or an adjacent or nested facility, shall be enclosed to ensure that particulate air emissions are contained within the enclosure. If a blasting operation has begun and off property emissions are found to have resulted, the blasting operation shall be stopped and not restarted until enclosures have been added or improved such that off property emissions no longer occur. Additionally, enclosures should be considered for in situ blasting where minimizing particulate emissions is desired for safety or housekeeping reasons or due to nearby work or operations.
- 3.2.1.6 No spent blasting media shall be stockpiled, recycled or reused onsite as fill.
- 3.2.2 Air Emission Control Requirements for Wet Abrasives:
 - 3.2.2.1 There are no usage restrictions or recordkeeping requirements when using wet abrasives (water blasting). Spent wet abrasives are a solid waste and may be a hazardous waste if they contain metals, particularly lead. All runoff shall be contained and prevented from contacting the ground surface or water bodies.
- 3.2.3 Air Particulate Control Requirements for Indoor, Enclosed Abrasive Cleaning:
 - 3.2.3.1 Exhaust air emissions from indoor blasting equipment shall be fabric filtered and controlled. The exhaust air velocity must be less than 4 feet/minute for mechanical cleaning and less than 7 feet/minute for air cleaning in order to operate within the permit by rule (PBR) exemption. The filter and/or equipment manufacturer shall be required to meet these specifications and shall be familiar with them. Contact the Environmental Department Air Group if there are any questions on meeting these requirements or problems with the equipment manufacturer.
 - 3.2.3.2 There can be no visible fugitive emissions from the sandblast booth or equipment. Blasting operation shall stop immediately if any emissions are visible and the equipment repaired before blasting resumes.
 - 3.2.3.3 If the above conditions cannot be met, the sand blasting operation shall be permitted in order to operate. Contact the Environmental Department Air Group for assistance before operating outside of these limits.
 - 3.2.3.4 Blasting grit usage shall be tracked and recorded to determine particulate air emissions. A form is provided in Attachment C. This form shall be sent via email to the Environmental Department's TRI Coordinator on a quarterly basis. The required submittal dates are March 5, June 5, September 5 and December 5. The Environmental TRI Coordinator can be located on the Environmental TeamView Site.
 - 3.2.3.5 Filters shall be inspected in accordance with the manufacturer's instructions.
 - 3.2.3.6 A preventive maintenance schedule shall be setup in SAP.
 - 3.2.3.7 Written operating instructions shall be created and maintained and be readily available to maintenance personnel.
- 3.3 Spent Blasting Abrasives Waste Handling Requirements
 - 3.3.1 General Requirements/Housekeeping
 - 3.3.1.1 Spent abrasives material shall be contained on the blasting pad and prevented from accumulating in soil covered areas. Barriers shall be erected and maintained around the perimeter of the blasting pad to prevent residuals

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from collecting on the ground or in water bodies. Any abrasives escaping the blasting pad shall be collected and containerized for disposal.

3.3.2 Waste Handling and Disposal Requirements for Spent Abrasives Contaminated with Metals (Lead)

3.3.2.1 Paint shall be tested for lead content or be known not to contain lead before using abrasives to clean painted equipment. Spent blasting grit shall be segregated from non-lead bearing spent blasting grit and treated as a hazardous waste if the paint contains lead above the US EPA MCL. **NOTE:** The project manager shall search for alternatives to outdoor abrasive blasting before a final decision is made to remove lead paint using this method in accordance with applicable GBR Lead Policies.

3.3.2.2 When lead contaminated abrasives are ready to be containerized for offsite disposal, label the container with a "hazardous waste pending analysis" label and the words "lead contaminated blasting grit."

3.3.2.3 Contact the Environmental Department for assistance in moving the container to storage prior to disposal. Label information is provided in Attachment A.

3.3.3 Waste Handling and Disposal Requirements for Non-Hazardous, Spent Abrasives

3.3.3.1 Spent blasting grit shall be containerized for disposal. A "hazardous waste pending analysis" label with the words, "spent blasting grit" shall be placed on the container when blasting clean, unpainted equipment or equipment painted with non-lead paint. Contact the Environmental Department for assistance in moving the container to storage prior to disposal.

3.3.4 Waste Handling and Disposal Requirements for In-Situ Abrasives Blasting

3.3.4.1 Before using abrasives, wet or dry, to clean equipment in place (for example, in the pipe rack, tank pits, process areas, etc.) containment tarps, plastic liners or equivalent containment system shall be in place to prevent spent blasting grit from escaping to earthen areas in addition to providing air emission control.

3.3.4.2 The spent blasting grit shall be placed into drums or bulk containers, labeled with "hazardous waste pending analysis" labels as "spent blasting grit" and properly dated. Labels can be obtained from the warehouse. Contact the Environmental Department for additional information in proper labeling, storage and disposal information.

3.4 Environmental Department Contact Information

3.4.1 The Environmental Department can be contacted for assistance by calling the Waste Group Hotline at (409) 771-2256.

4.0 Definitions

None

5.0 References

None

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6.0 Attachments

Attachment A – Container Labels Ordering Information

Attachment B – Dry, Outdoor Abrasives Cleaning Usage Records

Attachment C – Indoor, Enclosed Abrasives Cleaning

Attachment D – Instructions for Completing Forms

7.0 Revision History

Revision Number	Description of Change	Written by	Approved by	Revision Date	Effective Date
0	Original Issue. New integrated site procedure replaces GBR-HESS-ENV-39 under MOC 93391.	R. L. Harris	E. R. Kaysen	7/26/2021	8/20/2021

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Attachment A
Container Labels Ordering Information

Galveston Bay Refinery Main Warehouse – (409)942-2355

	Hazardous Waste Pending Analysis
	GENERATOR: <u>Blanchard Refining Co. LLC</u>
	ADDRESS: <u>2401 5th Ave. S</u>
	CITY, STATE, ZIP: <u>Texas City, TX 77590</u>
	EPA ID#: <u>TXD008080533 (TX: 30139)</u>
	DATE: _____ MO#: _____
	UNIT/LOCATION: _____
CONTENTS: _____	

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Attachment B

Dry, Outdoor Abrasives Cleaning Usage Records

Galveston Bay Refinery

DATE	ABRASIVES USAGE (indicate all actual usage rates)	OPERATING HOURS	COMMENTS/TYPE OF ABRASIVE USED	NOTE IF BLASTING OUTSIDE OF BLAST YARD
	_____ tons per day _____ tons per month _____ tons per year			
	_____ tons per day _____ tons per month _____ tons per year			
	_____ tons per day _____ tons per month _____ tons per year			
	_____ tons per day _____ tons per month _____ tons per year			

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Attachment C
Indoor, Enclosed Abrasives Cleaning
Galveston Bay Refinery

WEEK OF	EQUIPMENT ID/ SERIAL #	ABRASIVES USAGE	TYPE OF BLASTING AGENT
		_____ lbs per week _____ lbs per month _____ tons per year	
		_____ lbs per week _____ lbs per month _____ tons per year	
		_____ lbs per week _____ lbs per month _____ tons per year	
		_____ lbs per week _____ lbs per month _____ tons per year	
		_____ lbs per week _____ lbs per month _____ tons per year	

Note: For indoor, on-site blast yard & tanks, vessels, etc. abrasives cleaning. You can choose to track on a daily basis if that is easier or more convenient.

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Attachment D

Instructions for Completing Forms

1. Recordkeeping is **NOT** voluntary – it is required by law.
2. Indoor abrasives cleaning (Attachment C) require weekly estimates of usage. Outdoor abrasive cleaning (Attachment B) is more stringent and requires daily usage recordkeeping.
3. If no abrasives cleaning is done that day or week, then zero out the tons or lbs per day/week and carry forward the tons/lbs per month and tons/lbs per year.
4. Forms shall be sent via email to the Environmental Department's TRI Coordinator on a quarterly basis. The required dates are March 5, June 5, September 5 and December 5. The Environmental TRI Coordinator can be located on the Environmental SharePoint Site.
5. The Environmental Department shall periodically check the records and use the data for emissions calculations to comply with appropriate regulations and maintain the records in the Open Text database.
6. Fill in all blanks – if no comments, write "none".
7. Estimate usage using known factors such as visual observations, grit density, purchase records, etc.
8. Keep safety data sheets (SDS) for each abrasive type on file.
9. Use one form for each blasting abrasive device used for indoor cleaning.