

**San Joaquin Valley
Unified Air Pollution Control District**

**Guideline for Expedited Application Review (GEAR)
Abrasive Blasting Operations**

Approved By: Signed _____
David Warner
Director of Permit Services

Date: 10/13/05

PURPOSE: To outline the procedures for expedited processing of Authority to Construct (ATC) applications for abrasive blasting operations. These procedures will apply to processing of applications received over the counter or through the mail.

I. APPLICABILITY

This policy applies to applications for Authority to Construct new (confined or unconfined) abrasive blasting operations. Abrasive blasting operations do not include the equipment that supplies the compressed air or any bulk storage vessels that may be present. If such equipment requires an Authority to Construct on its own, it must be applied for separately and is not covered by this policy.

II. PERMIT APPLICATION AND SUPPLEMENTARY FORMS

The applicant must complete a regular ATC application form and the Abrasive Blasting Supplemental Application Form (Attachment I).

III. PRIORITY PROCESSING

If requested by the applicant, the applications will be processed on an expedited basis if a complete application form and the required filing fee for each permit unit are submitted. Expedited projects shall be processed within 30 days of receipt of a complete application.

In order to meet the expedited time frame, the engineer assigned for preliminary review will deem the application complete (if appropriate), write the application review, and finalize the project. The application review and final ATC will be submitted to the [lead engineer/supervisor/manager] for review and signature.

The priority processing will be preempted if the application is subject to any public noticing requirements, including school notice per California Health & Safety Code (CH&SC) 42301.6 (within 1,000 feet of any K-12 school).

IV. APPLICATION REVIEW

In order to standardize the application reviews for this source category, the application review found in [AirNet] will be used as a base document. The following pages are a hard copy version of this standard review. This hard copy version for the GEAR Policy Manual includes a copy of the required supplemental application form (Attachment I) and the standard ATC conditions. The actual application review will only have a draft ATC attached to it. This will minimize the number of pages for the expedited review.

The use of this standard Application Review will ensure that the proposed project complies with all applicable prohibitory rules.

V. EQUIPMENT DESCRIPTION

To ensure uniformity, the following standard description will be used in the database:

The ATC will specify if the operation is for confined blasting, unconfined blasting, or both, consistent with the applicant's proposal.

VI. AUTHORITY TO CONSTRUCT CONDITIONS

To ensure uniformity, a standard set of conditions will be used as a base for all applications (see Engineer Evaluation attached).

VII. APPLICABLE REQUIREMENTS

For applicable definitions see § 92000 of the California Code of Regulations (CCR).

A. Statewide Standards

Pursuant to California Health and Safety Code § 41900, the air pollution standards for abrasive blasting operations are set statewide by a committee of 11 members formed in accordance with § 41901.

California Health and Safety Code § 41904 states that "the standards shall be statewide, and no rule or regulation of any district that is applicable to sandblasting operations shall be stricter or less strict than the standards adopted by the state board pursuant to the recommendations of the committee."

B. Permit Requirements

§ 92100 of the California Code of Regulations states that the "standards in this subchapter are not intended to prohibit air pollution districts from enforcing their permit regulations as they apply to abrasive blasting equipment."

Therefore, permits are required in accordance with District Rule 2010 and subject to exemptions in District Rule 2020. Per District Policy ADM 1230, uncontrolled emissions from an abrasive blasting operation designed to include a blasting cabinet with an integral filtration system shall be determined to be those emissions which occur after emissions are reduced by the filtration system. This should be considered in determining if the unit is and subject to exemptions in District Rule 2020.

Emissions calculations are required for permit requirement determination: see calculation section of Engineer Evaluation attached.

If abrasive blasting operation is permit exempt, use permit exemption letter from AIRnet, Form/Letter.

C. New Source Review Rule Applicability

§ 41905 of the California Health and Safety Code states that “the (state) standards, however, shall not supersede any rule or regulation of any district governing permanent sandblasting operation or equipment, which rule or regulation was in effect on January 1, 1974.”

All new source review rules in the eight counties in the District were adopted after January 1, 1974. Therefore, the NSR requirements shall not apply to abrasive blasting operations conducted within the District.

In determining the NSR requirements, the emissions from abrasive blasting operations shall be excluded from the stationary source emissions.

D. Nuisance Rule Applicability

Section 4.0 of District Rule 4102 prohibits of air contaminants, which could cause injury, detriment, nuisance or annoyance to the public.

The District’s Risk Management Policy for Permitting New and Modified Sources (APR 1905, 3/2/01) requires that a Risk Management Review is performed for any increase in hourly or annual emissions of Hazardous Air Pollutants (HAPs). HAPs are limited to substances included on the list in CH&SC 44321 and that have an OEHHA approved health risk value.

E. Internal Combustion Engine Rule Applicability (if an internal combustion engine provides the compressed air for the abrasive blasting operation)

For purposes of § 41905 of the California Health and Safety Code, “sandblasting operation or equipment” does not include the equipment used to provide the compressed air. Therefore, any engine used to provide air or electricity for the blasting operation will not be exempt from Rules 2201, 4701, or any other prohibitory rules. Such engines shall be evaluated separately from the abrasive blasting operation.

F. Specific Requirements – 17 CCR, Subchapter 6

For determining the applicable requirements under § 92000 through § 92540 CCR, self-contained abrasive blasting operations such as blasting cabinets that vent to control devices are considered to be operations conducted “within a permanent building”. If, however, a blasting cabinet is being operated without a control device and is not located within a building, it would be considered an operation conducted “outside a permanent building”, and would be specified on the ATC as an unconfined operation.

1. Visible Emissions (§ 92200 CCR)

- a) Visible emissions from the abrasive blasting operation shall be less than 40% opacity when conducted outside a permanent building.
- b) Visible emissions from the abrasive blasting operation shall be less than 20% opacity when conducted within a permanent building.

2. Nuisance Prohibition (§ 92210 CCR)

Compliance with the statewide regulations does not exempt any person from complying with Section 41700 of the Health and Safety Code, nor from complying with any state statutory common law nuisance prohibition.

3. Performance Standards (§ 92500 CCR)

- a) All abrasive blasting operations must be conducted within a permanent building except for when one or more of the following conditions apply:
 - (i) Steel or iron shot/grit is used exclusively.
 - (ii) The item to be blasted exceeds 8 feet in any dimension.
 - (iii) The surface being blasted is situated at its permanent location or no further away from its permanent location than is necessary to allow the surface to be blasted.
- b) Abrasive blasting operations not conducted within a permanent building must use one or more of the following exclusively:
 - (i) Wet abrasive blasting.
 - (ii) Hydroblasting.
 - (iii) Vacuum blasting.
 - (iv) Abrasives certified by CARB for permissible dry outdoor blasting.
- c) Abrasive blasting of stucco and concrete shall be performed by wet blasting, hydroblasting, or vacuum blasting with the following exceptions (§ 92520 CCR):

Dry blasting with a certified abrasive may be used for:

- (i) Window and door returns and frames.
- (ii) Eaves, overhangs, and ceilings.
- (iii) Sweep abrasive blasting except for stucco surfaces.
- (iv) Completely shrouded structures or blast areas that effectively control emissions.
- (v) Abrasive cleaning operations, other than aggregate exposure or paint removal related to new concrete construction or repair activity, if such operations are performed onsite.

VIII. UPDATES

This GEAR will be updated as necessary to accommodate any changes in prohibitory rules or other items affecting the policy.

The attached bibliography lists items which are referenced in this GEAR. Changes to the listed items may necessitate revisions to this document. Additionally, alterations to this policy may trigger changes to some of the listed items.

The Permitting Handbook will also be updated whenever this GEAR document is updated.

Each update will be submitted to the GEAR coordinator for review and the coordinator will forward the updates for the Director's approval.

PERMIT CONDITIONS (PAS)

Confined Abrasive Blasting Operation (Cabinet Located Inside a Building/Room)

{271} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]

{52} The blasting operations shall be carried out in a manner to prevent any nuisances. [District Rule 4102]

{1475} All abrasive blasting shall be conducted in accordance with California Code of Regulations Title 17, Subchapter 6, Sections 92000 through 92540. [CCR]

{1483} A used certified abrasive shall not be considered certified for reuse unless the abrasive conforms to its original cut-point fineness. [92530 CCR]

{1992} Abrasive blasting operations conducted within the blasting cabinet shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 1 or equivalent to 20% opacity. [92200 CCR]

PERMIT CONDITIONS (PAS)

Confined Abrasive Blasting Operation (Cabinet Located Outside a Building/Room)

{271} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]

{52} The blasting operations shall be carried out in a manner to prevent any nuisances. [District Rule 4102]

{1475} All abrasive blasting shall be conducted in accordance with California Code of Regulations Title 17, Subchapter 6, Sections 92000 through 92540. [92000 through 92540 CCR]

{1483} A used certified abrasive shall not be considered certified for reuse unless the abrasive conforms to its original cut-point fineness. [92530 CCR]

{1992} Abrasive blasting operations conducted within the blasting cabinet shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 1 or equivalent to 20% opacity. [92200 CCR]

PERMIT CONDITIONS (PAS)

Confined Abrasive Blasting Operation (Located Inside a Building/Room Without Cabinet)

{271} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]

{52} The blasting operations shall be carried out in a manner to prevent any nuisances. [District Rule 4102]

{1475} All abrasive blasting shall be conducted in accordance with California Code of Regulations Title 17, Subchapter 6, Sections 92000 through 92540. [CCR]

{1483} A used certified abrasive shall not be considered certified for reuse unless the abrasive conforms to its original cut-point fineness. [92530 CCR]

{1474} Abrasive blasting operations conducted within a permanent building shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 1 or equivalent to 20% opacity. [92200 CCR]

PERMIT CONDITIONS (PAS)

Unconfined Abrasive Blasting Operation (Located Outside a Building Without Cabinet)

{271} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]

{52} The blasting operations shall be carried out in a manner to prevent any nuisances. [District Rule 4102]

{1475} All abrasive blasting shall be conducted in accordance with California Code of Regulations Title 17, Subchapter 6, Sections 92000 through 92540. [CCR]

{1483} A used certified abrasive shall not be considered certified for reuse unless the abrasive conforms to its original cut-point fineness. [92530 CCR]

{1482} Unconfined abrasive blasting operations shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 2 or equivalent to 40% opacity. [92200 CCR]

{1990} Except as otherwise provided in this permit, abrasive blasting shall be conducted within a permanent building unless steel or iron shot/grit is used. [92500 CCR]

{1991} Abrasive blasting of items exceeding 8 feet in any dimension, or of a surface situated at its permanent location, or no further away from its permanent location than is necessary to allow the surface to be blasted, may be performed outside a permanent building only if one of the following is used: steel or iron shot/grit; abrasives certified by CARB for permissible dry outdoor blasting; wet abrasive blasting, hydroblasting; or vacuum blasting. [92500 CCR]

PERMIT CONDITIONS (PAS)

Confined (Located Inside a Building, Without a Cabinet) AND Unconfined (Located Outside a Building, Without a Cabinet) Abrasive Blasting Operation

{271} All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District NSR Rule]

{52} The blasting operations shall be carried out in a manner to prevent any nuisances. [District Rule 4102]

{1475} All abrasive blasting shall be conducted in accordance with California Code of Regulations Title 17, Subchapter 6, Sections 92000 through 92540. [CCR]

{1483} A used certified abrasive shall not be considered certified for reuse unless the abrasive conforms to its original cut-point fineness. [92530 CCR]

{1474} Abrasive blasting operations conducted within a permanent building shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 1 or equivalent to 20% opacity. [92200 CCR]

{1482} Unconfined abrasive blasting operations shall not discharge air contaminants into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than Ringelmann 2 or equivalent to 40% opacity. [92200 CCR]

{1990} Except as otherwise provided in this permit, abrasive blasting shall be conducted within a permanent building unless steel or iron shot/grit is used. [92500 CCR]

{1991} Abrasive blasting of items exceeding 8 feet in any dimension, or of a surface situated at its permanent location, or no further away from its permanent location than is necessary to allow the surface to be blasted, may be performed outside a permanent building only if one of the following is used: steel or iron shot/grit; abrasives certified by CARB for permissible dry outdoor blasting; wet abrasive blasting, hydroblasting; or vacuum blasting. [92500 CCR]

ATTACHMENT I

Supplemental Form

**San Joaquin Valley Unified Air Pollution Control District
Supplemental Application Form**

Abrasive Blasting

This form must be accompanied by a completed Application for Authority to Construct and Permit to Operate form

PERMIT TO BE ISSUED TO:
LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:

PROCESS DESCRIPTION

Abrasive Used	Manufacturer:
	Material Name:
	Material Type: <input type="checkbox"/> Sand <input type="checkbox"/> Grit <input type="checkbox"/> Shot <input type="checkbox"/> Other : _____
	Flow Rate: _____ lb/hr
	Amount of Material used: _____ lb/day _____ lb/yr
Blasting Type	<input type="checkbox"/> Confined <input type="checkbox"/> Unconfined
	If unconfined: <input type="checkbox"/> Wet <input type="checkbox"/> Dry <input type="checkbox"/> Vacuum <input type="checkbox"/> Hydroblasting
Blasted Item	Description:
	Dimensions (ft) Length: _____ Width: _____ Height: _____

EQUIPMENT DESCRIPTION

Blasting Unit	Manufacturer:		
	Model:		
	Capacity (lb):		
Nozzles	Number of Nozzles: _____ Maximum Inner Diameter : _____ in		
Compressor	Manufacturer:		
	Model:		
	<input type="checkbox"/> Electric <input type="checkbox"/> Gasoline <input type="checkbox"/> Diesel <input type="checkbox"/> Natural Gas	Rating: _____ hp	Note: If engine is rated at greater than 50 hp an <i>IC Engine Supplemental Application</i> form is required.
	Air Flow Rate (cfm): _____ @ _____ psi		

EMISSIONS CONTROL EQUIPMENT

Control Device	[] Baghouse [] Dust Collector [] Booth		
	The control device is: [] integral [] not integral		
	Abrasive blasting takes place: [] inside of a building [] outside of a building		
	Emission control equipment is located: [] inside of a building [] outside of a building		
Bag House or Dust Collector (if applicable)	Manufacturer:		
	Model:		Serial Number:
	Blower Power Rating: _____ (hp)		Air Flow Rate: _____ (dscfm)
	Number of Bags/Filters: _____		Total Cloth Area: _____ (ft ²)
Booth (if applicable)	Manufacturer:		
	Model:		Serial Number:
	Booth Filtration Method: [] Dry Filter [] Water-Wash [] Oil-Wash		
	Number of Filters: _____	Size of Each Filter: _____ in L _____ in W _____ in H	
	Exhaust Fan Specifications: Diameter _____ in Motor Rating _____ hp		

HEALTH RISK ASSESSMENT DATA

Operating Hours	Maximum Operating Schedule: _____ hours per day, and _____ hours per year		
Receptor Data	Distance to nearest Residence	_____ feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.
	Direction to nearest Residence	_____	Direction from the stack to the receptor, i.e. Northeast or South.
	Distance to nearest Business	_____ feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.
	Direction to nearest Business	_____	Direction from the stack to the receptor, i.e. North or Southwest.
Stack Parameters	Release Height	_____ feet above the ground	
	Stack Diameter	_____ inches, at point of release	
	Rain Cap	[] Flapper-type [] Fixed-type [] None	
	Direction of Flow	[] Vertically Upward [] Horizontal	
Exhaust Data	Flowrate: _____ acfm	Temperature: _____ °F	
Facility Location	[] Urban (area of dense population) [] Rural (area of sparse population)		

FOR DISTRICT USE ONLY

Date:	FID:	Project:	Public Notice: Y N
Comments:			

BIBLIOGRAPHY

Rules and Regulations		
Rule Number	Title	Last Updated
District Rule 2201	New and Modified Stationary Source Review Rule	12/19/2002
District Rule 4102	Nuisance	12/17/1992
Title 17 CCR	Title 17 California Code of Regulations - Subchapter 6, § 92000 thru § 92540	6/1/1991
CH&SC 41900 thru 41905	California Health and Safety Code § 41900 thru § 41905	1997

District Policies		
Policy Number	Title	Last Updated
ADM 1230	Interpretation of "...not specifically listed in Section 5.0...", and "...uncontrolled emissions..." in Rule 2020, Exemptions.	4/18/1995

Electronic Documents		
Document Name	Title	Last Updated
G:/per/gear/Abrasive Blasting.doc	Standard Application Review for Abrasive Blasting Operations	03/11/2002

Miscellaneous		
Item	Title	Last Updated
Supplemental Form	Supplemental Application Form for Abrasive Blasting	03/11/2002
General Conditions	General Conditions from PAS Abrasive Section Condition Category	03/11/2002