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For DAQ Use Only

Form SS-PER-013-01: Drilling/Blasting Worksheet

Please see instructions on page 2 before filling out the form.

Supplemental Information

IDENTIFICATION	
1. Source Name:	2. Source ID No.:
3. Brief Project Description:	
SPECIFICS	
Drilling:	
4. Proposed maximum number of holes per year:	
Blasting:	
5. Maximum surface area per blast (ft ² /blast):	
6. Proposed maximum number of blasts per year:	
7. Proposed maximum ANFO (tons/year):	

All information above this line is required for this form to be considered complete. Duplicate sheet as needed.

The information below guides you to other forms that may have to accompany this worksheet.

- For emission control equipment, use the appropriate **CONTROL EQUIPMENT** form and duplicate as needed. Be sure to indicate the emission unit that the control equipment is affecting.
- Use the Engine form (SS-PER-007-03) if not operating on grid power and/or if there is an engine on-site.

Form Instructions

1. Provide the source name as it appears on the application. If a permit already exists for this operation, the source name should match the name on the permit.
2. If the source is existing and already has a permit, provide the number as it appears on the permit. Otherwise, enter "New."
3. Provide a brief description of the proposed project as it appears on the permit application. Indicate whether the drilling or blasting is being proposed as a new emission unit, replacing an existing emission unit, or being modified. If it is being modified, briefly describe the proposed changes.

USE ATTACHMENT IF ADDITIONAL SPACE IS REQUIRED.

4. Specify the number of holes to be drilled at the source per year. This will be an operational limit in the permit.
 - a. Calculate drilling emissions based on 0.68 lb/hole for PM₁₀ and 0.04 lb/hole for PM_{2.5}, based on AP-42.

5. Specify the surface area blasted in square feet per blast. This will be an operational limit in the permit.

6. Specify the number of blasts at the source per year. This will be an operational limit in the permit.

Calculate PM₁₀ and PM_{2.5} emissions per blast based on the AP-42 formula

$$\text{PM}_{10} (\text{lb/blast}) = 0.52 * 0.000014 * A^{1.5}$$

$$\text{PM}_{2.5} (\text{lb/blast}) = 0.03 * 0.000014 * A^{1.5}$$

where: A = the surface area blasted in square feet per blast

7. Specify the amount of ammonium nitrate-fuel oil mixture (ANFO) that could be used at the source in tons per year. This will be an operational limit in the permit.
 - a. Calculate CO and NO_x emissions from blasting using the emission factors generated by the National Institute for Occupational Safety and Health in 1997:
 - CO = 40.97 lb/ton of ANFO
 - NO_x = 7.92 lb/ton of ANFO