Abrasive Blasting Record Keeping Form

Emission Factors			
Media	PM (lb/1,000 lb abrasive)	PM 10 (lb/1,000 lb abrasive)	PM 2.5 (lb/1,000 lb abrasive)
Sand	27 (Inside), 91 (Outside)	13	1.3
*** Shot	9.1	1.3	0.13
**** Grit	21.84	3.12	0.312
* Glass Beads	9.1	1.3	0.13
* Coal Slag	21.84	3.12	0.312
Garnet	**69	*9.8	*0.98

Emission Factors - From AP-42 Chapter 13.2.6 and Table 13.2.6-1:
http://www.epa.gov/ttn/chief/ap42/ch13/final/c13s02-6.pdf

* Assumption based on a similar emission factor, such as PM = PM 10 = PM 2.5. Assuming Glass Beads ~ Steel Shot and Coal Slag ~ Grit.

** Back calculated an uncontrolled number from the emission factor in AP-42.

***Total PM emissions from shot blasting are 10% of the total PM emissions from sand blasting. (Chapter 13.2.6.3.)

****Total PM emissions from grit blasting are 24% of the total PM emissions from sand blasting. (Chapter 13.2.6.3.)

Abrasive Blaster Model # _____ Media Type (Sand, Glass Beads, Steel Shot) _____ Assuming Media Similar to (if necessary) _____

Nozzle Diameter _____ Air Gauge Pressure _____ * Capacity (lb/hr) _____

	Hours of Operation	**Throughput (lb/month)	PM Emissions			PM^{10} Emissions		$PM^{2.5}$ Emissions	
			***lb/hr	**** tons/month	tons/12-month rolling total	tons/month	tons/12-month rolling total	tons/month	tons/12-month rolling total
Jan.									
Feb.									
March									
April									
May									
June									
July									
Aug.									
Sep.									
Oct.									
Nov									
Dec.									

* The amount of abrasive used during blasting operations can be estimated using Table 2-2 from the back ground documentation in AP-42 if you know the inside diameter of the nozzle (inches) and the air pressure supplied (psig), the abrasive flow rate provided. Use Equation 2-1 for different nozzle diameters and different types of abrasive:
http://www.epa.gov/ttn/chief/ap42/ch13/bgdocs/b13s02-6.pdf

** Throughput (lb/Month) = (Capacity (lb/hr) * (Hours of Operation/Month)
(Do not use purchase records or the amount added to the machine for this calculation. This does not account for the amount of abrasive re-used.)

*** PM (lb/hr) based on a monthly average = [Capacity (lb abrasive/hr)] * [Emission Factor lb Pollutant/1000 lb abrasive] * [100% - 90% Control if Applicable]

**** PM Emissions (tons/month) = [amount abrasive (lb/hr)] * [Emissions Factor from Table Above lb/1,000 lb] * [Hours of Operation for the month] / [2000 lb/ton]