

## Water Usage Calculation for Dust Abatement only

Looking at the section of TCEQ Permit #176835 and per the info on page 28 of the Asphalt Inc permit (shown below), you will see the following information provided for water usage related to dust. Please note that this calculation is just for the spray bars and not considering the water used to spray the roads or the facilities in their plant. This proposed rock crushing facility will have 31 Emission Point Numbers (EPN).



Texas Commission on Environment Quality

**Table 17  
Rock Crushers**

<b>Please Complete the Following</b>				
Maximum operating schedule:	< 12 hours/day	< 7 days/week	< 52 weeks/year	
Does the facility operate at night?				<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>Maximum Plant Production Rates:</b>				
<input checked="" type="checkbox"/> Primary Crusher	Type: Jaw	200 tons/hour	528,000 tons/year	
<input checked="" type="checkbox"/> Secondary Crusher(s)	Type: Cone	200 tons/hour	528,000 tons/year	
<input type="checkbox"/> Tertiary Crusher(s)	Type:	tons/hour	tons/year	
<b>The Following Pieces of Equipment will be Controlled as Shown:</b>				
Feed Hoppers:	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Water Spray	<input type="checkbox"/> Suction to Baghouse	<input type="checkbox"/> Other: _____
All Belt Transfer Points:	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Water Spray	<input type="checkbox"/> Suction to Baghouse	<input type="checkbox"/> Other: _____
Inlet of all Crushers:	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Water Spray	<input type="checkbox"/> Suction to Baghouse	<input type="checkbox"/> Other: _____
Outlet of all Crushers:	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Water Spray	<input type="checkbox"/> Suction to Baghouse	<input type="checkbox"/> Other: _____
All Shaker Screens:	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Water Spray	<input type="checkbox"/> Suction to Baghouse	<input type="checkbox"/> Other: _____
<b>If Water Sprays are used, Provide the Following Data:</b>				
Water Flow Rate (gpm): 1-3				
Water Pressure at the Nozzle (psi): 30				
Number of Nozzles at each location: 1-5				
<i>If baghouse is used, attach a Table 11 "Fabric Filters."</i>				
Average material moisture content (%): >1.5%				
Maximum acreage covered by stockpiles (acres): 10				
Stockpiles have the following controls: <input type="checkbox"/> None <input checked="" type="checkbox"/> Water <input type="checkbox"/> Chemical				
In-plant roads will be: <input type="checkbox"/> Paved and Vacuumed <input type="checkbox"/> Paved and Swept <input type="checkbox"/> Oiled				
<input checked="" type="checkbox"/> Sprinkled with Water and/or Chemicals <input type="checkbox"/> Other: _____				

- Permit list 31 EPNs (one EPN is a Feed Hopper and will not have a sprayer on it), so this leave 30.
- Each EPN will have a spray bar with 1-5 sprayers
- Each sprayer will use 1-3 GPM each sprayer
- The facility will run 12 hour per day
- 7 days a week

This gives us a minimum and maximum calculation of:

- Minimum usage:  $30 \text{ EPN} \times 1 \text{ gal/min} \times 1 \text{ sprayer} \times 60 \text{ min} \times 12 \text{ hrs} \times 30 \text{ days} = \mathbf{648,000 \text{ gallons per month.}}$
- Maximum usage:  $30 \text{ EPN} \times 3 \text{ gal/min} \times 5 \text{ sprayer} \times 60 \text{ min} \times 12 \text{ hrs} \times 30 \text{ days} = \mathbf{9,720,000 \text{ gallons per month.}}$