

Baseline Concrete Plant Survey

Requirement for New Program Participants

In order to measure the effectiveness of Oregon's Concrete EPD program to create EPDs and reduce the environmental impacts of concrete produced in Oregon, DEQ and OCAPA are gathering baseline information on your plant's use of cement and average strength class sold. We are NOT requesting that you report annual production volumes or cement-use.

Instead, we are asking for a cement-use *ratio*, defined below, that shows the relative use of cement at a plant-wide level. Since Portland cement use is the primary indicator of concrete's environmental impacts, this metric will allow us to gauge if less cement is being used per volume of concrete produced. This metric is not perfect because higher strength mixes contain more cement and can skew comparisons from one year to the next. To control for this, we are also requesting that you report average strength class sold over the 12-month reporting period.

These 2 metrics combined over time will show the approximate improvements achieved. These initial reporting metrics are requirements if your plant is seeking a financial reimbursement incentive.

If you have questions on how to perform any of the calculations described below, please contact Jordan Palmeri at Oregon DEQ (503-229-6766 | palmeri.jordan@deq.state.or.us).



State of Oregon
Department of
Environmental
Quality

Baseline Concrete Plant Survey:

1. Prior to receiving monetary reimbursements, each plant must report:
 - a. Annual cement use ratio calculated by the following formula:

$$\text{Cement Use Ratio} = \frac{\text{Total pounds of cement purchased over a 12 month period}}{\text{Total production in cubic yards over same 12 month period}}$$

- b. Annual weighted average of strength class sold:

$$\text{Weighted Average strength class sold} = \frac{(a^1 * b^1) + (a^2 * b^2) + (a^3 * b^3) \dots}{c}$$

Where:

a = strength class value (e.g. – 2000)

b = yd3 sold per strength class over 12 month period

c = total yd3 sold over 12 month period

- c. 12-month period start and end date
2. The concrete plant completes the calculations and **only reports the final results** to OCAPA. You may email final results directly to Lori Pettenger (lori@ocapa.net).