

INCREMENTAL COST-EFFECTIVENESS ANALYSIS

PROPOSED NEW RULE 67.0.1 – ARCHITECTURAL COATINGS

Health and Safety Code Section 40920.6 (a) requires air pollution control districts to identify one or more potential control options that achieve at least the same benefit as the proposed rule, assess the cost-effectiveness of those options and calculate the incremental cost-effectiveness of each identified option. Incremental cost-effectiveness is defined as the difference in control costs divided by the difference in emission reductions between two potential options achieving the same emission reduction goal.

The only potential option that achieves at least the same or better environmental benefits from the manufacturing and application of architectural coatings would be to adopt the lower volatile organic compound (VOC) emission limits of Rule 1113 (Architectural Coatings) of the South Coast Air Quality Management District (SCAQMD).

It should be noticed that many VOC content limits in the California Air Resources Board Suggested Control Measure (SCM) for Architectural Coatings (and correspondingly in proposed Rule 67.0.1) are similar to those in SCAQMD Rule 1113 adopted in 2007. Therefore, for the purpose of conducting the incremental analysis for Rule 67.0.1, the Air Pollution Control District used the cost effectiveness, emission reductions and control costs of Rule 1113 as it existed in 2007.

Table 1. SDAPCD Rule 67.0.1 - Proposed

Baseline VOC Emission Inventory	7.3 tons/day
VOC Emission Reductions	2.3 tons/day = 1,679,000 pounds per year
Cost-Effectiveness	\$1.12/per pound VOC reduced (same as SCM)
Annualized Cost for proposed Rule 67.0.1	\$1,880,480 per year

Table 2. SCAQMD Rule 1113 - 2007

VOC Emission Reductions	4.7 tons/day = 3,431,000 pounds per year
Cost-Effectiveness	\$8.18 per pound VOC reduced
Annualized cost	\$28,292,493 per year

Table 3. Incremental Cost-Effectiveness

Incremental Annualized Cost	$\$28,292,493 - \$1,880,480 = \$26,412,013$ per year
Incremental Annual Emission Reductions	$3,431,000 - 1,679,000 = 1,752,000$ pounds per year
Incremental Cost-Effectiveness	\$15 per pound VOC reduced

As shown in Table 3, the incremental cost-effectiveness of achieving higher emission reductions is \$15 per pound of VOC reduced. This means that each extra pound of VOC emissions that would be reduced by adopting more stringent limits of the SCAQMD rule would cost \$15 in San Diego County. Therefore, this potential option is not feasible.