**OAR 340-224-5000**

**Net Air Quality Benefit for sources locating within or impacting designated areas**

The purpose of these rules is to demonstrate reasonable further progress toward achieving or maintaining the NAAQS for sources locating within or impacting designated areas.

(1) Unless otherwise specified in the rules, offsets required under this rule must meet the requirements of Emissions Reduction Credits in OAR 340 division 268.

(2) Except as provided in section (3), the emission reductions used as offsets must be of the same type of pollutant as the emissions from the new source or modification. Sources of particulate matter must be offset with particulate matter in the same size range.

(3) For PM2.5; inter-pollutant offsets are allowed as follows:

(a) 1 ton of direct PM2.5 may be used to offset 40 tons of SO2;

(b) 1 ton of direct PM2.5 may be used to offset 100 tons of NOx;

(c) 40 tons of SO2 may be used to offset 1 ton of direct PM2.5;

(d) 100 tons of NOx may be used to offset 1 ton of direct PM2.5.

**OAR 340-224-5010**

**Requirements for demonstrating Net Air Quality Benefit for Ozone Areas**

(1) For sources capable of impacting a designated ozone area;

(a) Offsets for VOC and NOx are required if the source will be located within the designated area or within the Ozone Precursor Distance.

(b) The amount and location of offsets must be determined in accordance with this subsection:

(A) For new or modified sources locating within a designated nonattainment area, the offset ratio is 1.1:1. These offsets must come from within either the same designated nonattainment area as the new or modified source or another ozone nonattainment area, with equal or higher nonattainment classification, that contributes to a violation of the NAAQS in the same designated nonattainment area as the new or modified source.

(B) For new or modified sources locating within a designated maintenance area, the offset ratio is 1.1:1. These offsets may come from within either the designated area or the ozone precursor distance.

(C) For new or modified sources locating outside the designated area, but within the ozone precursor distance, the offset ratio is 1:1. These offsets may come from within either the designated area or the ozone precursor distance.

(D) Offsets from outside the designated area but within the Ozone Precursor Distance must be from sources affecting the designated area in a comparable manner to the proposed emissions increase. Methods for determining offsets are described in the Ozone Precursor Offsets definition (OAR 340-225-0020(11)).

(c) In lieu of obtaining offsets, the owner or operator may obtain an allocation at the rate of 1:1 from a growth allowance, if available, in an applicable maintenance plan.

(d) Sources within or affecting the Medford Ozone Maintenance Area are exempt from the requirement for NOx offsets relating to ozone formation.

(e) Sources within or affecting the Salem Ozone Maintenance Area are exempt from the requirement for VOC and NOx offsets relating to ozone formation.

**OAR 340-224-5020**

 **Requirements for Demonstrating Net Air Quality Benefit for Non-Ozone Areas**

(1) When directed by the Major and Minor New Source Review rules, sources located within designated areas must get offsets in accordance with sections (2) and (4), or sections (3) and (4):

(2) The ratio must be no less than 1.2:1 if the offsets do not include offsets from priority sources. If the offsets include offsets from priority sources, the ratio may be reduced to no less than 1.0:1, as follows:

(3) The ratio must be no less than 1.0:1 if the offsets do not include offsets from priority sources. If the offsets include offsets from priority sources, the ratio may be reduced to no less than 0.5:1, as follows:

(4) For the offsets specified in (2) and (3), the owner or operator must conduct dispersion modeling in accordance with division 225 that demonstrates compliance with the criteria in (a) or the criteria in (b) and (c):

(a) the impacts from the emission increases above the source’s netting basis are less than the Class II SIL at all receptors within the designated area; or

(b) the impacts from the emission increases above the source’s netting basis are less than the Class II SIL at any location where DEQ approved ambient monitoring data is available; and

(c) the impacts of the emission increases above the source’s netting basis, plus the impacts of emission increases or decreases in the PSEL of all other sources since the date of the current area designation, are less than 10% of the NAAQS at all receptors within the designated area, determined as follows:

(A) subtract the offsets from priority sources from the new or modified source’s emission increase;

(B) conduct dispersion modeling of the following emissions:

(i) the source’s remaining emission increases after subtracting the priority source offsets specified in (A); and

(ii) the emission increases or decreases from all other sources since the date the area was designated, including offsets used for the proposed project, but excluding offsets from priority sources.

 (5) When directed by the Major and Minor New Source Review rules, sources locating outside, but impacting a designated area:

(a) For the purpose of this section, a source has a significant impact on a designated area if the source’s emissions have a single source impact greater than the Class II SIL at any receptor within the designated area.

 (b) The owner or operator must obtain offsets sufficient to reduce impacts to less than the Class II SIL at all receptors within the designated area; or

(c) must obtain offsets in accordance with OAR 340-224-5020(3), provided the offsets are demonstrated to have a significant impact on the designated area.

**Procedure for calculating reduced offset requirements for 1.2-1.0**

Procedure for calculating reduced offset requirements if referred here from above…

Need to link in the designated problem source from the EQC designation criteria in Div. 204

 y=mx+b

where:

 E = new or modified source emissions which must be offsets, tons per year

 R = offset ratio

 T = total offsets required, tons per year

P = offsets from priority sources, tons per year

I = offsets from industrial sources, tons per year

T = E \* R = P + I

F = percentage of E from priority sources = P / E \* 100

When F = 0 percent, R = 1.20

When F is 5 percent, R = 1.10

When F is > 10 percent, R = 1.00

1. For a specific situation, E will be known.

2. Determine offsets P from the priority sources:

 P = tons per year of offsets from priority sources

 P is rounded to nearest whole ton

3. Calculate F:

 F = P / E \* 100

 F is rounded to the nearest whole ton

4. Determine R:

 R = 1.2 – 0.2 \* F (With F expressed an a percentage) over the range of F from 0 to 10 percent

5. Determine total offsets required:

 T = E \* R

 T is rounded to the nearest whole ton

6. Determine industrial offsets required:

 I = T – P

**340-224-YY**

**Procedure for calculating reduced offset requirements for 1.0-0.5**

Procedure for calculating reduced offset requirements if referred here from above…

Need to link in the designated problem source from the EQC designation criteria in Div. 204

 y=mx+b

(2) Offset ratio 1.0:1 except the ratio may be reduced to no less than 0.5:1 as follows:

MSF:GD

MINOR NSR OFFSETS

For 100% I - R = 1.0

For 50% I – R = 0.5

Slope in this region is 1

1. If P = 0-50%E; R = 1.0 - %P adj/100

Or

2. If P 51-100% E; R = 0.5

3. I = R X E – Padj

IF you give P double the value, shifts ranges to 0-25% and 26% - 100%

Eliminate test 3 for majors

EXAMPLE: E = 20; P = 4

2P = 8

%P = 40%

R = 0.6

T offsets = 20 X 0.6 = 12

I = 12 – 8 = 4

Offsets = P + I = 12 – 8 = 4

MAJOR NRS OFFSETS

100% I = 1.2

80% I, 20% P = 1.0

(1.2-1)/(20% - 0) = 0.2/20% = 0.2/0.2 = 1

Slope = 1 in range 1.2 to 1.0

1. If P is 0-20%E; R = 1.2 - %P/100 – Give P double the value and get to 10% scenario

OR

2. If P is 21%-100%E; R = 1.0

And

3. P + I > E