

Table 5.8. Alternative Group C: Maximum Air Quality Impacts to the Public from Activities in the 200 Areas

Pollutant	Averaging Time	Ambient Air Quality Standard ($\mu\text{g}/\text{m}^3$)	Hanford & Lower Bound Volume		Upper Bound Volume	
			Maximum Air Quality Impacts ($\mu\text{g}/\text{m}^3$)	Percent of Standard	Maximum Air Quality Impacts ($\mu\text{g}/\text{m}^3$)	Percent of Standard
PM ₁₀	24 hr	150	60	40	61	41
	Annual	50	0.53	1.1	0.54	1.1
SO ₂	1 hr	1,000	79	7.9	80	8.0
	3 hr	1,300	36	2.8	37	2.8
	24 hr	260	2.9	1.1	2.9	1.1
	Annual	50	0.018	0.036	0.018	0.036
CO	1 hr	40,000	1500	3.8	1500	3.8
	8 hr	10,000	460	4.6	470	4.7
NO ₂	Annual	100	0.79	0.79	0.78	0.78

All air quality impacts to the public from Alternative Group C would be within ambient air quality standards (see Table 4.5). The largest potential impacts to the public from activities at Area C would result from SO₂ and CO emissions. The largest potential air quality impacts to the public from activities in the 200 Areas would involve the 24-hour PM₁₀ concentration. Even using the series of conservative assumptions employed in the dispersion modeling, this maximum air quality impact would be about 40 percent of the applicable air quality standard.

5.2.4 Alternative Groups D₁, D₂, and D₃

Project activities that would generate air quality impacts under Alternative Group D₁, D₂, and D₃ (collectively referred to as Alternative D) include the use of diesel-fueled equipment to construct a lined modular facility to hold the LLW, MLLW, ILAW and melters, backfilling and capping activities in the LLBGs, the modification of T Plant, and the excavation of materials at the borrow pit. In addition, propane would be used at the CWC and to operate pulse driers used to treat leachate from the MLLW trenches. Fugitive dust would be associated with all major construction and operation activities. Alternative Groups D₁, D₂, and D₃ postulate different locations for the Lined Modular Facility. In conducting air quality modeling, a conservative 200 West Area source location was assumed in all cases for the lined modular facility. As a result, the air quality estimates for D₁, D₂, and D₃ are equivalent.

For Alternative Group D (Hanford Only, Lower Bound, and Upper Bound waste volumes), the largest air quality impacts would occur during two different periods of project operation. In 2006, the lined modular facility construction and capping of an existing MLLW trench would be under way. The heavy use of construction equipment for short periods of time would produce the maximum average pollutant concentrations for CO and SO₂. After disposal operations cease, the lined modular facility capping operations would be in full swing. This sustained activity would produce the maximum 24-hour and annual concentrations of PM₁₀ and the maximum annual concentrations of NO₂.

1 Estimates of the maximum air quality impacts to the public from activities in the 200 Areas under
 2 Alternative D are summarized in Table 5.9. Estimates of the maximum air quality impacts from Area C
 3 activities are the same for all Alternative Groups (see Table 5.6).
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5 **Table 5.9.** Alternative D: Maximum Air Quality Impacts to the Public from Activities in the 200 Areas
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Pollutant	Averaging Time	Ambient Air Quality Standard ($\mu\text{g}/\text{m}^3$)	Hanford & Lower Bound Volume		Upper Bound Volume	
			Maximum Air Quality Impacts ($\mu\text{g}/\text{m}^3$)	Percent of Standard	Maximum Air Quality Impacts ($\mu\text{g}/\text{m}^3$)	Percent of Standard
PM ₁₀	24 hr	150	61	41	62	41
	Annual	50	0.53	1.1	0.54	1.1
SO ₂	1 hr	1,000	84	8.4	84	8.4
	3 hr	1,300	38	2.9	38	2.9
	24 hr	260	3.1	1.2	3.1	1.2
	Annual	50	0.019	0.038	0.019	0.038
CO	1 hr	40,000	1590	4.0	1590	4.0
	8 hr	10,000	500	5.0	500	5.0
NO ₂	Annual	100	0.91	0.91	0.98	0.98

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 8 All air quality impacts from Alternative D would be within ambient air quality standards. The largest
 9 potential impacts to the public from Area C activities would result from SO₂ and CO emissions. The
 10 largest potential air quality impacts to the public from activities in the 200 Areas would involve the
 11 24-hour PM₁₀ air concentration. Using the series of conservative assumptions employed in the dispersion
 12 modeling, this maximum air quality impact would be about 41 percent of the applicable air quality
 13 standard.
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15 **5.2.5 Alternative Groups E₁, E₂, and E₃**

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 17 Project activities that would generate air quality impacts under Alternative Groups E₁, E₂, and E₃
 18 (collectively referred to as Alternative E) include the use of diesel-fueled equipment to construct a lined
 19 modular facility for LLW and MLLW, construction of the ILAW and melter trenches, backfilling and
 20 capping activities in the LLBGs, modification of T Plant, and the excavation of materials at the borrow
 21 pit. In addition, propane engines would be used at the CWC and to operate pulse driers used to treat
 22 leachate from the MLLW trenches. Fugitive dust would be associated with all major construction and
 23 operation activities. Alternative Groups E₁, E₂, and E₃ postulate different locations for the lined modular
 24 facility. In conducting air quality modeling, a conservative 200 West Area source location was assumed
 25 in all cases for the lined modular facility. As a result, the air quality estimates for E₁, E₂, and E₃ are
 26 equivalent.
 27

28 For Alternative Group E (Hanford Only, Lower Bound, and Upper Bound waste volumes), the largest
 29 air quality impacts would occur during three different periods of project operation. In 2006, the heavy
 30 use of construction equipment for concurrent construction of LLW, MLLW, and ILAW trenches and the