Table VIII-4. Annualized Costs for All Establishments Affected by OSHA's Final Standard for Hexavalent Chromium (by Application Group and Regulatory Requirement for a PEL of 5 ug/m³)

Part					Periodic		
Electroplating   Electroplating   SA   SA   SA   SA   SA   SA   SA   S			Engineering	Initial Exposure	Exposure	Total Exposure	Respirator
Welding (general industry - stainless steel)		Application Group	Controls	Monitoring	Monitoring	Monitoring	Programs
Welding (martime industry - stainless steel)   S3,817,884   \$59,010   \$14,955   \$13,868,527   \$9,881,945   \$157,735   \$1,886,680   \$9,881,945   \$2,241,945   \$15,7735   \$1,886,680   \$9,881,945   \$2,241,945   \$15,7735   \$1,886,680   \$9,881,945   \$2,241   Welding (general industry - carbon steel)   \$70,184   \$71,233   \$559,456   \$30,0889   \$152,939   \$2,241,945   \$15,7735   \$1,886,680   \$9,881,945   \$2,241	1	Electroplating	\$32,993,514	\$1,868,271	\$8,037,794	\$9,906,066	
Welding (construction industry - stainless steel)   \$22,526,110   \$214,945   \$1,671,735   \$1,886,860   \$98,819,945   Welding (general industry - carbon steel)   \$5,130,000   \$2,385,283   \$50,523,385,283   \$4,176,849   \$2,186,940   \$2,385,283   \$4,476,849   \$4,176		Welding (general industry - stainless steel)					
Welding (government-stainless steel)							
241   Welding (general industry - carbon steet)   \$5,130,000   \$2,385,283   \$0   \$2,385,283   \$4,715,849   \$205,000   \$200,000   \$							
281   Welding (maritime industry - carbon steel)   \$109.082   \$127.460   \$0   \$3127.460   \$395.580   \$201.000   \$3127.460   \$395.580   \$306.615   \$32.052.166   \$32.052.166   \$34.000		,					
2011   Welding (construction industry - carbon steel)   \$6,028,674   \$300,615   \$0   \$300,615   \$2,022,1671   3AP ainting (general industry - actrospace)   \$1,089,340   \$189,780   \$324,421   \$334,201   \$767,568   3AP ainting (general industry - coil coating)   \$10,099,340   \$189,780   \$344,421   \$334,201   \$767,568   3B Painting (general industry - coil coating)   \$0   \$18,408   \$14,751   \$334,201   \$767,568   3B Painting (construction industry)   \$140,150   \$163,375   \$3496,135   \$569,515   \$2,931,363   3C Painting (construction industry)   \$0   \$553,944   \$244,765   \$298,359   \$0,000   3D Painting (construction industry)   \$0   \$553,944   \$244,765   \$298,359   \$0,000   3D Painting (construction industry)   \$0   \$553,944   \$244,765   \$298,359   \$0,000   3D Painting (construction industry)   \$0   \$553,944   \$244,765   \$298,359   \$0,000   3D Painting (construction industry)   \$0   \$553,944   \$249,765   \$298,359   \$0,000   3D Painting (construction industry)   \$0   \$553,944   \$44,974   \$298,359   \$0,000   3D Painting (construction industry)   \$0   \$1,665   \$3,002   \$4,667   \$2,1983   \$47,000   3D Painting (construction industry)   \$0   \$1,665   \$3,002   \$4,667   \$2,1983   \$47,000   3D Painting (construction industry)   \$0   \$1,665   \$3,002   \$4,667   \$2,1983   \$47,000   3D Painting (construction industry)   \$0   \$1,665   \$3,002   \$4,667   \$2,280   3D Painting (construction industry)   \$0   \$1,695   \$3,002   \$4,667   \$2,280   3D Painting (construction industry)   \$0   \$1,695   \$3,002   \$4,670   \$2,280   3D Painting (construction industry)   \$0   \$1,695   \$3,002   \$4,670   \$2,280   \$4,670   \$2,280   \$4,670   \$2,280   \$4,670							
					•		
Painting (construction industry)							
Scale							
Social Patring (government)		• • • • • • • • • • • • • • • • • • • •					
4         Chromate (phromite ore) production         \$0         \$3,054         \$4,974         \$5,029         \$3,47,000           Chromated Copper Assenate (CCA)         538,867         \$4,316         \$17,667         \$2,680           Producers         \$0         \$1,685         \$3,002         \$4,667         \$2,680           Porticuers         \$1,693,578         \$13,742         \$45,282         \$59,024         \$34,444           Paint and Coalings Producers         \$1,093,778         \$13,742         \$45,282         \$59,024         \$34,844           Paint and Coalings Producers         \$1,093,778         \$13,742         \$45,282         \$59,024         \$34,849           Paint and Coalings Producers         \$1,093,778         \$13,742         \$45,282         \$59,024         \$34,869           Painting link Producers         \$0         \$14,753         \$31,046         \$45,799         \$15,968           10         Plastic Colorant Producers         \$0         \$16,369         \$14,848         \$88,122         \$12,988           12         Wood Preserving         \$0         \$0,30         \$0         \$0         \$0         \$0         \$0         \$0         \$3,347,475         \$14,747         \$14,757         \$14,753         \$12,196         \$22,1							
5         Chromate Pigment Producers         \$36,867         \$4,316         \$17,667         \$21,983         \$47,000           6         Chromated Copper Assenate (CCA)         7         Producers         \$0         \$1,685         \$3,002         \$4,667         \$22,680           7         Chromium Catalyst Producers         \$1,693,578         \$13,742         \$45,222         \$90,24         \$34,844           8         Paint and Coatings Producers         \$1,029,714         \$65,401         \$61,749         \$127,150         \$32,707           9         Printing ink Producers and Users         \$0         \$16,1120         \$727,007         \$388,126         \$237,782           11         Plating Mixture Producers         \$0         \$0.30         \$0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Chromated Copper Assenate (CCA)   Producers   \$1,83,578   \$13,742   \$45,282   \$59,024   \$34,844   \$12,716   \$127,156   \$127,176		, ,					
o Producers         \$0         \$1,665         \$3,002         \$4,667         \$2,680           7         Chromium Catalyst Producers         \$1,693,578         \$13,742         \$45,252         \$59,024         \$34,844           8         Paint and Coatings Producers         \$1,029,714         \$65,401         \$61,749         \$127,150         \$32,797           9         Pritting Ink Producers         \$0         \$161,120         \$727,007         \$888,126         \$267,828           10         Plastic Colorant Producers         \$0         \$6,369         \$18,439         \$24,808         \$267,828           11         Pitaling Mixture Producers         \$0         \$6,369         \$18,439         \$24,808         \$6,387           12         Wood Preserving         \$0         \$0         \$0         \$0         \$0           13         Chromium Material Producers         \$6,400         \$4,689         \$18,496         \$23,008         \$6,387           14         Steel Mills (stainties)         \$42,627         \$115,093         \$123,171         \$284,116         \$10,277,17         \$124,777           14         Steel Mills (stainties)         \$44,058         \$878,347         \$3,546,183         \$4,47,531         \$2,71,196 <th< td=""><td>5</td><td></td><td>\$36,867</td><td>\$4,316</td><td>\$17,667</td><td>\$21,983</td><td>\$47,000</td></th<>	5		\$36,867	\$4,316	\$17,667	\$21,983	\$47,000
Producers	6	Chromated Copper Arsenate (CCA)	_				
8         Paint and Coatings Producers         \$1,029,714         \$65,401         \$61,749         \$127,150         \$32,797           9         Printing Ink Producers         \$0         \$14,753         \$31,046         \$45,799         \$18,651           10         Plastic Colorant Producers         \$0         \$161,120         \$727,007         \$888,126         \$267,828           11         Plating Mixture Producers         \$0         \$0         \$0         \$0         \$0           12         Wood Preserving         \$0         \$0         \$0         \$0         \$0           13         Chromium Material Producers         \$6,400         \$4,659         \$4,288         \$9,947         \$1,375,50           14         Steel Mills (scarbon)         \$123,171         \$284,116         \$0         \$224,415         \$132,717           14B         Reshaping         \$0         \$64,940         \$168,866         \$233,806         \$86,821           15         Iron and Steel Foundries         \$940,658         \$879,347         \$3,546,183         \$4,424,531         \$2,371,966           16         Chromium Dixide Producers         \$0         \$22,448         \$112,263         \$135,710         \$57,007         \$8           17			•				
9 Printing Ink Producers 50 \$14,753 \$31,046 \$45,799 \$18,956 \$10 Plastic Colorant Producers and Users 50 \$161,120 \$727,007 \$888,126 \$267,828 \$11 Plating Mixture Producers \$0 \$6,369 \$18,439 \$24,808 \$6,387 \$12 Wood Preserving \$0 \$0 \$6,369 \$18,439 \$24,808 \$6,387 \$12 Wood Preserving \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0		•					
Plastic Colorant Producers and Users   \$0							
Plating Mixture Producers   \$0   \$0.369   \$18,439   \$24,808   \$5.387		•					
12			-				
Chromium Material Producers   \$6,400   \$4,659   \$4,288   \$8,947   \$4,757							
14         Steel Mills (stainless)         \$42,627         \$115,093         \$121,954         \$237,047         \$13,47,550           14A         Steel Mills (carbon)         \$123,171         \$284,116         \$0         \$284,116         \$132,717           14B         Reshaping         \$0         \$64,940         \$168,666         \$233,806         \$86,821           15         Iron and Steel Foundries         \$940,658         \$878,347         \$3,546,183         \$4,245,51         \$237,1966           16         Chromium Dye Producers         \$0         \$23,448         \$112,263         \$155,710         \$57,007           18         Chromium Dye Producers         \$0         \$2,734         \$3,087         \$5,822         \$1,919           19         Chemical Distributors         \$0         \$502,670         \$0         \$502,670         \$0           20         Textille Dyeling         \$0         \$439,555         \$0         \$439,555         \$0           21         Colored Glass Producers         \$0         \$20,185         \$9,434         \$29,619         \$3,226           21         Fiber, Flat, and Container Glass         \$24,624         \$34,764         \$51,629         \$86,393         \$766,567           22         Pr		Wood Preserving					
14A   Steel Mills (carbon)   \$123,171   \$284,116   \$0 \$224,116   \$132,717   \$14B   Reshaping   \$0 \$64,940   \$168,866   \$233,806   \$868,821   \$15   Iron and Steel Foundries   \$940,658   \$878,347   \$3,546,183   \$4,424,531   \$2,371,966   \$16   Chromium Dioxide Producers   \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0		Chromium Material Producers					
14B   Reshaping   \$0		Steel Mills (stainless)					
15	14A	Steel Mills (carbon)					
16   Chromium Dioxide Producers   \$0   \$0   \$0   \$0   \$0   \$0   \$0   \$	14B	Reshaping					
17   Chromium Dye Producers   \$0   \$23,448   \$112,263   \$135,710   \$57,007     18   Chromium Sulfate Producers   \$0   \$2,734   \$3,087   \$5,822   \$1,919     19   Chemical Distributors   \$0   \$502,670   \$0   \$502,670   \$0     20   Textile Dyeing   \$0   \$439,585   \$0   \$439,585   \$0     21   Colored Glass Producers   \$0   \$20,185   \$9,434   \$29,619   \$3,226     22   Printing   \$0   \$157,113   \$0   \$157,113     23   Leather Tanning   \$0   \$157,113   \$0   \$157,113     24   Chromium Catalyst Users   \$0   \$94,408   \$59,347   \$153,756   \$566     24   Chromium Catalyst Users   \$0   \$94,408   \$59,347   \$153,756   \$566     24   Chromium Catalyst Users   \$0   \$28,584   \$136,534   \$165,118   \$0     25   Refractory Brick Producers   \$0   \$14,484   \$0     26A   Woodworking (general industry)   \$0   \$19,485   \$0   \$19,485   \$0     26B   Woodworking (general industry)   \$0   \$19,485   \$0   \$19,485   \$0     26D   Woodworking (government)   \$12,496   \$33,254   \$52,143   \$90,397   \$0     27   Solid Waste Incineration   \$0   \$298,340   \$0   \$298,340   \$0     28   Oil and Gas Well Drilling   \$0   \$0   \$0   \$0   \$0     29   Portland Cement Producers   \$0   \$40,440   \$237,733   \$278,173   \$0     31C   Construction (Refractory Repair)   \$66,000   \$40,440   \$237,733   \$278,173   \$0     31D   Construction (Refractory Repair)   \$66,000   \$40,440   \$237,733   \$278,173   \$0     31D   Construction (Refractory Repair)   \$66,000   \$40,440   \$237,733   \$278,173   \$0     31D   Construction (Refractory Repair)   \$66,000   \$40,440   \$237,733   \$278,173   \$0     31D   Construction (Refractory Repair)   \$66,000   \$40,440   \$237,733   \$278,173   \$0     31D   Construction (Refractory Repair)   \$66,000   \$40,440   \$237,733   \$278,173   \$0     31D   Construction (Refractory Repair)   \$66,000   \$40,440   \$237,733   \$278,173   \$0     31D   Construction (Refractory Repair)   \$66,000   \$40,440   \$237,733   \$278,173   \$0     31D   Construction (Refractory Repair)   \$66,000   \$60,400   \$0   \$0   \$0     32D   Refractory Repair   \$60,000   \$0   \$0   \$0   \$0	15	Iron and Steel Foundries	\$940,658	\$878,347	\$3,546,183	\$4,424,531	\$2,371,966
18         Chromium Sulfate Producers         \$0         \$2,734         \$3,087         \$5,822         \$1,919           19         Chemical Distributors         \$0         \$502,670         \$0         \$502,670         \$0           20         Textile Dyeing         \$0         \$439,585         \$0         \$439,585         \$0           21         Colored Glass Producers         \$0         \$20,185         \$9,434         \$29,619         \$3,226           21A         Fiber, Flat, and Container Glass         \$24,624         \$34,764         \$51,629         \$86,393         \$766,567           22         Printing         \$0         \$157,113         \$0         \$157,113         \$0           24         Chromium Catalyst Users         \$0         \$94,408         \$59,347         \$153,756         \$566           24A         Chromium Catalyst Users         \$0         \$94,408         \$59,347         \$153,756         \$566           24A         Chromium Catalyst Users         \$0         \$94,408         \$59,347         \$153,756         \$566           24A         Chromium Catalyst Users         \$0         \$94,408         \$59,347         \$153,756         \$666           24A         Chromium Catalyst Users         \$0<	16	Chromium Dioxide Producers		\$0	\$0	\$0	\$0
19   Chemical Distributors   \$0   \$502,670   \$0   \$502,670   \$0   \$0   Textille Dyeing   \$0   \$439,585   \$0   \$439,585   \$0   \$32,268   \$10   \$3,226   \$21   Colored Glass Producers   \$0   \$20,185   \$9,434   \$29,619   \$3,226   \$21   Fiber, Flat, and Container Glass   \$24,624   \$34,764   \$51,629   \$86,393   \$766,567   \$22   Printing   \$0   \$157,113   \$0   \$517,113   \$0   \$0   \$23   Leather Tanning   \$0   \$0   \$0   \$0   \$0   \$0   \$0   \$	17	Chromium Dye Producers	\$0	\$23,448	\$112,263	\$135,710	\$57,007
20         Textile Dyeing         \$0         \$439,585         \$0         \$439,585         \$0           21         Colored Glass Producers         \$0         \$20,185         \$9,434         \$22,619         \$3,226           21A         Fiber, Flat, and Container Glass         \$24,624         \$34,764         \$51,629         \$86,393         \$766,567           22         Printing         \$0         \$157,113         \$0         \$157,113         \$0           22         Printing         \$0         \$0         \$0         \$0         \$0           24         Chromium Catalyst Users         \$0         \$94,408         \$59,347         \$153,756         \$566           24A         Chromium Catalyst Users (Service)         \$0         \$28,584         \$136,534         \$165,118         \$0           25         Refractory Brick Producers         \$0         \$14,484         \$0         \$144,484         \$0         \$144,484         \$0         \$164,484         \$0         \$165,118         \$0         \$0         \$26         Woodworking (general industry)         \$0         \$75,840         \$0         \$75,840         \$0         \$75,840         \$0         \$75,840         \$0         \$0         \$26         Woodworking (maritime industry) <td>18</td> <td>Chromium Sulfate Producers</td> <td>\$0</td> <td>\$2,734</td> <td>\$3,087</td> <td>\$5,822</td> <td>\$1,919</td>	18	Chromium Sulfate Producers	\$0	\$2,734	\$3,087	\$5,822	\$1,919
Colored Glass Producers   \$0	19	Chemical Distributors	\$0	\$502,670	\$0	\$502,670	
21A   Fiber, Flat, and Container Glass   \$24,624   \$34,764   \$51,629   \$86,393   \$766,567	20	Textile Dyeing	\$0	\$439,585	\$0	\$439,585	\$0
22         Printing         \$0         \$157,113         \$0         \$157,113         \$0           23         Leather Tanning         \$0         \$0         \$0         \$0         \$0           24         Chromium Catalyst Users         \$0         \$94,408         \$59,347         \$153,756         \$566           24A         Chromium Catalyst Users (Service)         \$0         \$28,584         \$136,534         \$1165,118         \$0           25         Refractory Brick Producers         \$0         \$14,484         \$0         \$14,484         \$0           26A         Woodworking (general industry)         \$0         \$75,840         \$0         \$75,840         \$0           26B         Woodworking (construction industry)         \$0         \$19,485         \$0         \$19,485         \$0           26C         Woodworking (construction industry)         \$744,793         \$2,374,426         \$3,235,810         \$5,610,236         \$0           26D         Woodworking (government)         \$12,496         \$38,254         \$52,143         \$90,397         \$0           27         Solid Waste Incineration         \$0         \$298,340         \$0         \$0         \$298,340         \$0           28         Oil and Gas Wel	21	Colored Glass Producers	\$0	\$20,185	\$9,434	\$29,619	\$3,226
23         Leather Tanning         \$0         \$0         \$0         \$0           24         Chromium Catalyst Users         \$0         \$94,408         \$59,347         \$153,756         \$566           24A         Chromium Catalyst Users (Service)         \$0         \$28,584         \$136,534         \$165,118         \$0           25         Refractory Brick Producers         \$0         \$14,484         \$0         \$14,484         \$0           26A         Woodworking (general industry)         \$0         \$75,840         \$0         \$75,840         \$0           26B         Woodworking (maritime industry)         \$0         \$19,485         \$0         \$19,485         \$0           26C         Woodworking (construction industry)         \$744,793         \$2,374,426         \$3,235,810         \$5,610,236         \$0           26D         Woodworking (government)         \$12,496         \$38,254         \$52,143         \$90,397         \$0           27         Solid Waste Incineration         \$0         \$298,340         \$0         \$298,340         \$0           27         Incinerators (government)         \$0         \$16,688         \$0         \$16,688         \$0           28         Oil and Gas Well Drilling         \$0	21A	Fiber, Flat, and Container Glass	\$24,624	\$34,764	\$51,629	\$86,393	\$766,567
24         Chromium Catalyst Users (Service)         \$0         \$94,408         \$59,347         \$153,756         \$566           24A         Chromium Catalyst Users (Service)         \$0         \$28,584         \$136,534         \$165,118         \$0           25         Refractory Brick Producers         \$0         \$14,484         \$0         \$14,484         \$0           26A         Woodworking (general industry)         \$0         \$75,840         \$0         \$75,840         \$0           26B         Woodworking (maritime industry)         \$0         \$19,485         \$0         \$19,485         \$0           26C         Woodworking (government)         \$12,496         \$32,374,426         \$3,235,810         \$5,610,236         \$0           26D         Woodworking (government)         \$12,496         \$38,254         \$52,143         \$90,397         \$0           26D         Woodworking (government)         \$12,496         \$38,254         \$52,143         \$90,397         \$0           27         Solid Waste Incineration         \$0         \$298,340         \$0         \$298,340         \$0           27A         Incinerators (government)         \$0         \$16,688         \$0         \$16,688         \$0           28	22	Printing	\$0	\$157,113	\$0	\$157,113	\$0
24A         Chromium Catalyst Users (Service)         \$0         \$20,584         \$136,534         \$165,118         \$0           25         Refractory Brick Producers         \$0         \$14,484         \$0         \$14,484         \$0           26A         Woodworking (general industry)         \$0         \$75,840         \$0         \$75,840         \$0           26B         Woodworking (maritime industry)         \$0         \$19,485         \$0         \$19,485         \$0           26C         Woodworking (construction industry)         \$744,793         \$2,374,426         \$3,235,810         \$5,610,236         \$0           26D         Woodworking (government)         \$12,496         \$38,254         \$52,143         \$90,397         \$0           27         Solid Waste Incineration         \$0         \$298,340         \$0         \$298,340         \$0           27         Incinerators (government)         \$0         \$16,688         \$0         \$16,688         \$0           28         Oil and Gas Well Drilling         \$0         \$0         \$0         \$0         \$0           29         Portland Cement Producers         \$10,800         \$42,068         \$0         \$42,068         \$30,980           31B         Constructi	23	Leather Tanning		\$0	\$0	\$0	\$0
25         Refractory Brick Producers         \$0         \$14,484         \$0         \$14,484         \$0           26A         Woodworking (general industry)         \$0         \$75,840         \$0         \$75,840         \$0           26B         Woodworking (maritime industry)         \$0         \$19,485         \$0         \$19,485         \$0           26C         Woodworking (construction industry)         \$744,793         \$2,374,426         \$3,235,810         \$5,610,236         \$0           26D         Woodworking (government)         \$12,496         \$38,254         \$52,143         \$90,397         \$0           27         Solid Waste Incineration         \$0         \$298,340         \$0         \$298,340         \$0           27         Solid Waste Incineration         \$0         \$298,340         \$0         \$0         \$0           28         Oil and Gas Well Drilling         \$0         \$16,688         \$0         \$16,688         \$0           29         Portland Cement Producers         \$0         \$0         \$0         \$0         \$0           30         Superalloy Producers         \$10,800         \$42,068         \$0         \$0         \$0           31D         Construction (Refractory Repair)	24	Chromium Catalyst Users	\$0	\$94,408	\$59,347	\$153,756	\$566
26A         Woodworking (general industry)         \$0         \$75,840         \$0         \$75,840         \$0           26B         Woodworking (maritime industry)         \$0         \$19,485         \$0         \$19,485         \$0           26C         Woodworking (construction industry)         \$744,793         \$2,374,426         \$3,235,810         \$5,610,236         \$0           26D         Woodworking (government)         \$12,496         \$38,254         \$52,143         \$90,397         \$0           27         Solid Waste Incineration         \$0         \$298,340         \$0         \$298,340         \$0           27A         Incinerators (government)         \$0         \$16,688         \$0         \$16,688         \$0           28         Oil and Gas Well Drilling         \$0         \$0         \$0         \$0         \$0           29         Portland Cement Producers         \$0         \$0         \$0         \$0         \$0           30         Superalloy Producers         \$10,800         \$42,068         \$0         \$42,068         \$30,980           31B         Construction (Refractory Repair)         \$66,000         \$40,440         \$237,733         \$278,173         \$0           31CG         Haz. Waste (governme	24A	Chromium Catalyst Users (Service)	\$0	\$28,584	\$136,534	\$165,118	\$0
26B         Woodworking (maritime industry)         \$0         \$19,485         \$0         \$19,485         \$0           26C         Woodworking (construction industry)         \$744,793         \$2,374,426         \$3,235,810         \$5,610,236         \$0           26D         Woodworking (government)         \$12,496         \$38,254         \$52,143         \$90,397         \$0           27         Solid Waste Incineration         \$0         \$298,340         \$0         \$298,340         \$0           27A         Incinerators (government)         \$0         \$16,688         \$0         \$16,688         \$0           28         Oil and Gas Well Drilling         \$0         \$0         \$0         \$0         \$0           29         Portland Cement Producers         \$0         \$0         \$0         \$0         \$0           30         Superalloy Producers         \$10,800         \$42,068         \$0         \$0         \$0           31B         Construction (Refractory Repair)         \$66,000         \$40,440         \$237,733         \$278,173         \$0           31CG         Haz. Waste (government)         \$0         \$47,213         \$0         \$47,213         \$0           31D         Construction (Industrial Rehabilitati	25	Refractory Brick Producers	\$0	\$14,484	\$0	\$14,484	\$0
26C         Woodworking (construction industry)         \$744,793         \$2,374,426         \$3,235,810         \$5,610,236         \$0           26D         Woodworking (government)         \$12,496         \$38,254         \$52,143         \$90,397         \$0           27         Solid Waste Incineration         \$0         \$298,340         \$0         \$298,340         \$0           27A         Incinerators (government)         \$0         \$16,688         \$0         \$16,688         \$0           28         Oil and Gas Well Drilling         \$0         \$0         \$0         \$0         \$0           29         Portland Cement Producers         \$0         \$0         \$0         \$0         \$0           30         Superalloy Producers         \$10,800         \$42,068         \$0         \$42,068         \$30,980           31B         Construction (Refractory Repair)         \$66,000         \$40,440         \$237,733         \$278,173         \$0           31CG         Haz. Waste (government)         \$0         \$47,213         \$0         \$47,213         \$0           31D         Construction (Industrial Rehabilitation)         \$0         \$1,251         \$0         \$1,251         \$0           31DG         Industrial Rehabi.	26A	Woodworking (general industry)	\$0	\$75,840	\$0	\$75,840	\$0
26D         Woodworking (government)         \$12,496         \$38,254         \$52,143         \$90,397         \$0           27         Solid Waste Incineration         \$0         \$298,340         \$0         \$298,340         \$0           27A         Incinerators (government)         \$0         \$16,688         \$0         \$16,688         \$0           28         Oil and Gas Well Drilling         \$0         \$0         \$0         \$0         \$0         \$0           29         Portland Cement Producers         \$0         \$0         \$0         \$0         \$0         \$0           30         Superalloy Producers         \$10,800         \$42,068         \$0         \$42,068         \$30,980           31B         Construction (Refractory Repair)         \$66,000         \$40,440         \$237,733         \$278,173         \$0           31C         Construction (Hazardous Waste Work)         \$0         \$47,213         \$0         \$47,213         \$0           31CG         Haz. Waste (government)         \$0         \$51,035         \$0         \$51,035         \$0         \$51,035         \$0           31D         Construction (Industrial Rehabilitation)         \$0         \$33,233         \$0         \$33,233         \$0	26B	Woodworking (maritime industry)	\$0	\$19,485	\$0	\$19,485	\$0
27         Solid Waste Incineration         \$0         \$298,340         \$0         \$298,340         \$0           27A         Incinerators (government)         \$0         \$16,688         \$0         \$16,688         \$0           28         Oil and Gas Well Drilling         \$0         \$0         \$0         \$0         \$0           29         Portland Cement Producers         \$0         \$0         \$0         \$0         \$0           30         Superalloy Producers         \$10,800         \$42,068         \$0         \$42,068         \$30,980           31B         Construction (Refractory Repair)         \$66,000         \$40,440         \$237,733         \$278,173         \$0           31C         Construction (Hazardous Waste Work)         \$0         \$47,213         \$0         \$47,213         \$0           31C         Haz. Waste (government)         \$0         \$51,035         \$0         \$1,035         \$0           31D         Construction (Industrial Rehabilitation)         \$0         \$1,251         \$0         \$1,251         \$0           31DG         Industrial Rehab. (government)         \$0         \$33,233         \$0         \$33,233         \$0           32A         Ready-Mixed Concrete         \$0	26C	Woodworking (construction industry)	\$744,793	\$2,374,426	\$3,235,810	\$5,610,236	
27A         Incinerators (government)         \$0         \$16,688         \$0         \$16,688         \$0           28         Oil and Gas Well Drilling         \$0         \$0         \$0         \$0         \$0           29         Portland Cement Producers         \$0         \$0         \$0         \$0         \$0           30         Superalloy Producers         \$10,800         \$42,068         \$0         \$42,068         \$30,980           31B         Construction (Refractory Repair)         \$66,000         \$40,440         \$237,733         \$278,173         \$0           31C         Construction (Hazardous Waste Work)         \$0         \$47,213         \$0         \$47,213         \$0           31CG         Haz. Waste (government)         \$0         \$51,035         \$0         \$51,035         \$0           31D         Construction (Industrial Rehabilitation)         \$0         \$1,251         \$0         \$1,251         \$0           31DG         Industrial Rehab. (government)         \$0         \$33,233         \$0         \$33,233         \$0         \$33,233         \$0           32A         Ready-Mixed Concrete         \$0         \$0         \$0         \$0         \$0           32         Precast Concre	26D	Woodworking (government)	\$12,496	\$38,254	\$52,143	\$90,397	\$0
28         Oil and Gas Well Drilling         \$0         \$0         \$0         \$0         \$0           29         Portland Cement Producers         \$0         \$0         \$0         \$0         \$0         \$0           30         Superalloy Producers         \$10,800         \$42,068         \$0         \$42,068         \$30,980           31B         Construction (Refractory Repair)         \$66,000         \$40,440         \$237,733         \$278,173         \$0           31C         Construction (Hazardous Waste Work)         \$0         \$47,213         \$0         \$47,213         \$0           31CG         Haz. Waste (government)         \$0         \$51,035         \$0         \$51,035         \$0           31D         Construction (Industrial Rehabilitation)         \$0         \$1,251         \$0         \$1,251         \$0           31DG         Industrial Rehab. (government)         \$0         \$33,233         \$0         \$33,233         \$0           32A         Ready-Mixed Concrete         \$0         \$0         \$0         \$0         \$0           32         Precast Concrete Products Producers         \$0         \$0         \$0         \$0         \$0           General Industry (including Government)         \$80	27	Solid Waste Incineration	\$0	\$298,340	\$0	\$298,340	\$0
29         Portland Cement Producers         \$0         \$0         \$0         \$0         \$0           30         Superalloy Producers         \$10,800         \$42,068         \$0         \$42,068         \$30,980           31B         Construction (Refractory Repair)         \$66,000         \$40,440         \$237,733         \$278,173         \$0           31C         Construction (Hazardous Waste Work)         \$0         \$47,213         \$0         \$47,213         \$0           31CG         Haz. Waste (government)         \$0         \$51,035         \$0         \$51,035         \$0           31D         Construction (Industrial Rehabilitation)         \$0         \$1,251         \$0         \$1,251         \$0           31DG         Industrial Rehab. (government)         \$0         \$33,233         \$0         \$33,233         \$0           32A         Ready-Mixed Concrete         \$0         \$0         \$0         \$0         \$0           32         Precast Concrete Products Producers         \$0         \$0         \$0         \$0         \$0           General Industry (including Government)         \$80,195,969         \$10,003,090         \$16,756,168         \$26,759,258         \$40,508,889           Construction         \$29,965,577	27A	Incinerators (government)	\$0	\$16,688	\$0	\$16,688	\$0
30         Superalloy Producers         \$10,800         \$42,068         \$0         \$42,068         \$30,980           31B         Construction (Refractory Repair)         \$66,000         \$40,440         \$237,733         \$278,173         \$0           31C         Construction (Hazardous Waste Work)         \$0         \$47,213         \$0         \$47,213         \$0           31CG         Haz. Waste (government)         \$0         \$51,035         \$0         \$51,035         \$0           31D         Construction (Industrial Rehabilitation)         \$0         \$1,251         \$0         \$1,251         \$0           31DG         Industrial Rehab. (government)         \$0         \$33,233         \$0         \$33,233         \$0           32A         Ready-Mixed Concrete         \$0         \$0         \$0         \$0         \$0           32         Precast Concrete Products Producers         \$0         \$0         \$0         \$0         \$0           General Industry (including Government)         \$80,195,969         \$10,003,090         \$16,756,168         \$26,759,258         \$40,508,889           Construction         \$29,965,577         \$3,443,258         \$7,228,443         \$10,671,701         \$11,934,130           Maritime         \$4,06	28	Oil and Gas Well Drilling	\$0	\$0	\$0	\$0	\$0
31B         Construction (Refractory Repair)         \$66,000         \$40,440         \$237,733         \$278,173         \$0           31C         Construction (Hazardous Waste Work)         \$0         \$47,213         \$0         \$47,213         \$0           31CG         Haz. Waste (government)         \$0         \$51,035         \$0         \$51,035         \$0           31D         Construction (Industrial Rehabilitation)         \$0         \$1,251         \$0         \$1,251         \$0           31DG         Industrial Rehab. (government)         \$0         \$33,233         \$0         \$33,233         \$0           32A         Ready-Mixed Concrete         \$0         \$0         \$0         \$0         \$0           32         Precast Concrete Products Producters         \$0         \$0         \$0         \$0         \$0           General Industry (including Government)         \$80,195,969         \$10,003,090         \$16,756,168         \$26,759,258         \$40,508,889           Construction         \$29,965,577         \$3,443,258         \$7,228,443         \$10,671,701         \$11,934,130           Maritime         \$4,067,116         \$369,329         \$510,185         \$879,514         \$16,912,270	29	Portland Cement Producers	\$0	\$0	\$0	\$0	\$0
31C         Construction (Hazardous Waste Work)         \$0         \$47,213         \$0         \$47,213         \$0           31CG         Haz. Waste (government)         \$0         \$51,035         \$0         \$51,035         \$0           31D         Construction (Industrial Rehabilitation)         \$0         \$1,251         \$0         \$1,251         \$0           31DG         Industrial Rehab. (government)         \$0         \$33,233         \$0         \$33,233         \$0           32A         Ready-Mixed Concrete         \$0         \$0         \$0         \$0         \$0           32         Precast Concrete Products Producers         \$0         \$0         \$0         \$0         \$0           General Industry (including Government)         \$80,195,969         \$10,003,090         \$16,756,168         \$26,759,258         \$40,508,889           Construction         \$29,965,577         \$3,443,258         \$7,228,443         \$10,671,701         \$11,934,130           Maritime         \$4,067,116         \$369,329         \$510,185         \$879,514         \$16,912,270	30	Superalloy Producers		\$42,068		\$42,068	\$30,980
31C         Construction (Hazardous Waste Work)         \$0         \$47,213         \$0         \$47,213         \$0           31CG         Haz. Waste (government)         \$0         \$51,035         \$0         \$51,035         \$0           31D         Construction (Industrial Rehabilitation)         \$0         \$1,251         \$0         \$1,251         \$0           31DG         Industrial Rehab. (government)         \$0         \$33,233         \$0         \$33,233         \$0           32A         Ready-Mixed Concrete         \$0         \$0         \$0         \$0         \$0           32         Precast Concrete Products Producers         \$0         \$0         \$0         \$0         \$0           General Industry (including Government)         \$80,195,969         \$10,003,090         \$16,756,168         \$26,759,258         \$40,508,889           Construction         \$29,965,577         \$3,443,258         \$7,228,443         \$10,671,701         \$11,934,130           Maritime         \$4,067,116         \$369,329         \$510,185         \$879,514         \$16,912,270	31B	Construction (Refractory Repair)	\$66,000	\$40,440	\$237,733	\$278,173	\$0
31D         Construction (Industrial Rehabilitation)         \$0         \$1,251         \$0         \$1,251         \$0           31DG         Industrial Rehab. (government)         \$0         \$33,233         \$0         \$33,233         \$0           32A         Ready-Mixed Concrete         \$0         \$0         \$0         \$0         \$0         \$0           32         Precast Concrete Products Producers         \$0         \$0         \$0         \$0         \$0           General Industry (including Government)         \$80,195,969         \$10,003,090         \$16,756,168         \$26,759,258         \$40,508,889           Construction         \$29,965,577         \$3,443,258         \$7,228,443         \$10,671,701         \$11,934,130           Maritime         \$4,067,116         \$369,329         \$510,185         \$879,514         \$16,912,270	31C	Construction (Hazardous Waste Work)	\$0	\$47,213		\$47,213	\$0
31D         Construction (Industrial Rehabilitation)         \$0         \$1,251         \$0         \$1,251         \$0           31DG         Industrial Rehab. (government)         \$0         \$33,233         \$0         \$33,233         \$0           32A         Ready-Mixed Concrete         \$0         \$0         \$0         \$0         \$0         \$0           32         Precast Concrete Products Producers         \$0         \$0         \$0         \$0         \$0           General Industry (including Government)         \$80,195,969         \$10,003,090         \$16,756,168         \$26,759,258         \$40,508,889           Construction         \$29,965,577         \$3,443,258         \$7,228,443         \$10,671,701         \$11,934,130           Maritime         \$4,067,116         \$369,329         \$510,185         \$879,514         \$16,912,270	31CG	Haz. Waste (government)	\$0	\$51,035	\$0	\$51,035	\$0
32A 32 Precast Concrete Products Products         \$0 \$0 \$0 \$0         \$0		Construction (Industrial Rehabilitation)	\$0	\$1,251	\$0	\$1,251	\$0
32         Precast Concrete Products Producters         \$0         \$0         \$0         \$0         \$0         \$0           General Industry (including Government)         \$80,195,969         \$10,003,090         \$16,756,168         \$26,759,258         \$40,508,889           Construction         \$29,965,577         \$3,443,258         \$7,228,443         \$10,671,701         \$11,934,130           Maritime         \$4,067,116         \$369,329         \$510,185         \$879,514         \$16,912,270	31DG	Industrial Rehab. (government)	\$0	\$33,233	\$0	\$33,233	\$0
General Industry (including Government)         \$80,195,969         \$10,003,090         \$16,756,168         \$26,759,258         \$40,508,889           Construction         \$29,965,577         \$3,443,258         \$7,228,443         \$10,671,701         \$11,934,130           Maritime         \$4,067,116         \$369,329         \$510,185         \$879,514         \$16,912,270	32A	Ready-Mixed Concrete	\$0	\$0	\$0	\$0	\$0
Construction         \$29,965,577         \$3,443,258         \$7,228,443         \$10,671,701         \$11,934,130           Maritime         \$4,067,116         \$369,329         \$510,185         \$879,514         \$16,912,270	32	Precast Concrete Products Producers	\$0	\$0	\$0	\$0	\$0
Construction         \$29,965,577         \$3,443,258         \$7,228,443         \$10,671,701         \$11,934,130           Maritime         \$4,067,116         \$369,329         \$510,185         \$879,514         \$16,912,270							
Maritime \$4,067,116 \$369,329 \$510,185 \$879,514 \$16,912,270			\$80,195,969				
Total \$114,228,662 \$13,815,677 \$24,494,795 \$38,310,473 \$69,355,289		Maritime	\$4,067,116	\$369,329	\$510,185	\$879,514	\$16,912,270
10tal \$114,228,662 \$13,815,6// \$24,494,795 \$38,310,473 \$69,355,289		T-4-1	£444 000 000	C40 045 077	CO4 404 705	#20 040 470	#e0 255 202
		I OTAI	\$114,228,662	\$13,815,677	\$24,494,795	\$38,310,4/3	\$09,355,289

Table VIII-4. Annualized Costs for All Establishments Affected by OSHA's Final Standard for Hexavalent Chromium (by Application Group and Regulatory Requirement for a PEL of 5 ug/m³)

	Application Group	Housekeeping	Medical Surveillance	Training and Familiarization	Recordkeeping
1	Electroplating	\$12,379,200	\$1,433,002	\$917,183	\$268,100
2A	Welding (general industry - stainless steel)	\$0	\$1,911,121	\$1,839,045	\$105,900
2B	Welding (maritime industry - stainless steel)	\$0	\$549,827	\$265,467	\$44,900
2C	Welding (construction industry - stainless steel)	\$0	\$3,285,863	\$1,726,575	\$171,200
2D	Welding (government - stainless steel)	\$0	\$31,783	\$82,026	\$11,800
2A1	Welding (general industry - carbon steel)	\$0	\$646,799	\$2,791,713	\$208,900
2B1	Welding (maritime industry - carbon steel)	\$0	\$14,504	\$63,508	\$2,400
2C1	Welding (construction industry - carbon steel)	\$0	\$1,729,924	\$3,060,321	\$317,600
3A	Painting (general industry - aerospace)	\$352,200	\$596,733	\$367,677	\$33,600
3A1	Painting (general industry - auto repair)	\$4,067,700	\$389,289	\$1,637,407	\$147,400
3A2	Painting (general industry - coil coating)	\$375,300	\$54,125	\$89,051	\$7,900
3B	Painting (maritime industry)	\$0	\$108,410	\$214,672	\$13,400
3C	Painting (construction industry)	\$0	\$592,592	\$2,068,114	\$155,900
3D	Painting (government)	\$0	\$125,284	\$824,567	\$43,100
4	Chromate (chromite ore) production	\$6,400	\$4,345	\$2,734	\$900
5	Chromate Pigment Producers	\$3,150	\$4,441	\$979	\$300
6	Chromated Copper Arsenate (CCA)				
b	Producers	\$0	\$1,157	\$460	\$130
7	Chromium Catalyst Producers	\$16,000	\$13,139	\$5,872	\$1,820
8	Paint and Coatings Producers	\$231,160	\$31,644	\$39,535	\$11,120
9	Printing Ink Producers	\$16,430	\$0	\$1,620	\$1,130
10	Plastic Colorant Producers and Users	\$21,320	\$0	\$12,608	\$2,860
11	Plating Mixture Producers	\$27,600	\$5,412	\$1,829	\$510
12	Wood Preserving	\$0	\$0	\$0	\$0
13	Chromium Material Producers	\$4,190	\$1,559	\$815	\$270
14	Steel Mills (stainless)	\$224,500	\$712,400	\$164,853	\$46,200
14A	Steel Mills (carbon)	\$670,500	\$153,661	\$443,738	\$120,600
14B	Reshaping	\$324,000	\$7,600	\$15,658	\$4,600
15	Iron and Steel Foundries	\$720,800	\$1,194,114	\$421,457	\$186,800
16	Chromium Dioxide Producers	\$0	\$0	\$0	\$0
17	Chromium Dye Producers	\$5,290	\$0	\$2,009	\$580
18	Chromium Sulfate Producers	\$10,100	\$1,362	\$291	\$100
19	Chemical Distributors	\$3,319,100	\$4	\$34,858	\$0
20	Textile Dyeing	\$712,800	\$0	\$276,803	\$76,300
21	Colored Glass Producers	\$18,500	\$1,289	\$1,099	\$200
21A	Fiber, Flat, and Container Glass	\$256,500	\$171,256	\$60,601	\$14,000
22	Printing	\$52,600	\$0	\$70,307	\$18,700
23	Leather Tanning	\$0	\$0	\$0	\$0
24	Chromium Catalyst Users	\$466,300 \$74,540	\$5,404	\$6,331 \$40,503	\$990
24A	Chromium Catalyst Users (Service)	\$71,510 \$42,420	\$27,531	\$10,593	\$3,350
25	Refractory Brick Producers	\$12,420 \$214,000	\$5 \$5,798	\$937 \$6,313	\$300 \$500
26A	Woodworking (general industry)	\$814,900 \$0	\$5,796 \$13	\$2,292	\$400
26B 26C	Woodworking (maritime industry) Woodworking (construction industry)	\$0 \$0	\$1,241,423	\$320,136	\$44,700
26D	Woodworking (construction industry) Woodworking (government)	\$0 \$0	\$18,620	\$3,736	\$400
27	Solid Waste Incineration	\$0 \$0	\$10,020	\$22,923	\$4,820
27A	Incinerators (government)	\$0	\$2	\$1,150	\$140
28	Oil and Gas Well Drilling	\$0	\$0	\$0	\$0
29	Portland Cement Producers	\$0	\$0	\$0	\$0
30	Superalloy Producers	\$16,580	\$18,828	\$11,256	\$3,530
31B	Construction (Refractory Repair)	\$0	\$52,224	\$27,554	\$4,260
31C	Construction (Hazardous Waste Work)	\$0	\$25	\$34,747	\$5,620
31CG	Haz. Waste (government)	\$0	\$14	\$22,405	\$3,270
31D	Construction (Industrial Rehabilitation)	\$0	\$34	\$50,939	\$8,220
31DG	Industrial Rehab. (government)	\$0	\$2	\$4,740	\$490
32A	Ready-Mixed Concrete	\$0	\$0	\$0	\$0
32	Precast Concrete Products Producers	\$0	\$0	\$0	\$0
				·	<del>-</del> _
	General Industry (including Government)	\$25,197,050	\$7,567,765	\$10,197,180	\$1,331,610
	Construction	\$0	\$6,902,085	\$7,288,387	\$707,500
	Maritime	\$0	\$672,753	\$545,940	\$61,100
	Total	\$25,197,050	\$15,142,603	\$18,031,507	\$2,100,210

Table VIII-4. Annualized Costs for All Establishments Affected by OSHA's Final Standard for Hexavalent Chromium (by Application Group and Regulatory Requirement for a PEL of 5 ug/m³)

					Associated Costs due to Non- Compliance with Existing Requirements		
	Application Group	Total Costs to the	Transfer of PPE Payments	Total Costs to Employers	PPE (not supplied in baseline)	Hygiene Areas	Total for New and Existing Requirements (a)
1	Electroplating	\$61,731,240	\$1,219,625	\$62,950,865	\$0	\$4,439,800	\$67,390,665
2A	Welding (general industry - stainless steel)	\$53,442,406	\$0	\$53,442,406	\$0	\$0	\$53,442,406
2B	Welding (maritime industry - stainless steel)	\$18,636,465	\$0	\$18,636,465	\$0	\$0	\$18,636,465
2C	Welding (construction industry - stainless steel)	\$39,478,391	\$0	\$39,478,391	\$0	\$0	\$39,478,391
2D	Welding (government - stainless steel)	\$979,421	\$0	\$979,421	\$0	\$0	\$979,421
2A1	Welding (general industry - carbon steel)	\$15,878,544	\$0	\$15,878,544	\$0	\$0	\$15,878,544
2B1	Welding (maritime industry - carbon steel)	\$412,533	\$0	\$412,533	\$0	\$0	\$412,533
2C1	Welding (construction industry - carbon steel)	\$14,095,301	\$0	\$14,095,301	\$0	\$0	\$14,095,301
3A	Painting (general industry - aerospace)	\$9,158,001	\$1,628	\$9,159,629	\$11,711,583	\$275,400	\$21,146,611
3A1	Painting (general industry - auto repair)	\$18,242,003	\$1,395,069	\$19,637,072		\$2,500,700	\$81,922,032
3A2	Painting (general industry - coil coating)	\$669,513	\$358	\$669,871	\$2,797,183	\$116,400	\$3,583,454
3B	Painting (maritime industry)	\$4,067,505 \$5,050,400	\$1,220,626	\$5,288,131	\$5,661,140	\$407,800	\$11,357,071
3C 3D	Painting (construction industry)	\$5,358,139 \$4,304,340	\$930,935	\$6,289,074	\$0 \$0	\$0 \$0	\$6,289,074
3D 4	Painting (government)	\$1,291,310 \$20,527	\$256,945 \$30	\$1,548,255 \$20,567	\$0 \$0	\$0 \$4.400	\$1,548,255
5	Chromate (chromite ore) production Chromate Pigment Producers	\$30,537 \$114,720	\$30 \$10	\$30,567 \$444.720	\$0 \$0	\$4,400 \$3,000	\$34,967 \$447,730
3	Chromated Copper Arsenate (CCA)	\$114,720	\$10	\$114,730	ΨΟ	\$3,000	\$117,730
6	Producers	\$9,094	\$3	\$9,097	\$12,587	\$1,200	\$22,884
7	Chromium Catalyst Producers	\$1,824,277	\$40	\$1,824,317	\$110,290	\$12,700	\$1,947,307
8	Paint and Coatings Producers	\$1,503,120	\$213	\$1,503,332	\$3,777,438	\$142,300	\$5,423,071
9	Printing Ink Producers	\$83,944	\$1	\$83,946	\$7,570	\$7,300	\$98,816
10	Plastic Colorant Producers and Users	\$1,192,742	\$139	\$1,192,881	\$31,030	\$33,600	\$1,257,512
11	Plating Mixture Producers	\$66,546	\$20	\$66,566	\$0	\$9,400	\$75,966
12	Wood Preserving	\$0	\$0	\$0	\$0	\$0	\$0
13	Chromium Material Producers	\$26,979	\$0	\$26,979	\$0	\$0	\$26,979
14	Steel Mills (stainless)	\$2,775,177	\$0	\$2,775,177	\$0	\$0	\$2,775,177
14A	Steel Mills (carbon)	\$1,928,503	\$0	\$1,928,503	\$0	\$0	\$1,928,503
14B	Reshaping	\$672,485	\$0	\$672,485	\$0	\$0	\$672,485
15	Iron and Steel Foundries	\$10,260,326	\$0	\$10,260,326	\$0	\$0	\$10,260,326
16	Chromium Dioxide Producers	\$0	\$0	\$0	\$0	\$0	\$0
17	Chromium Dye Producers	\$200,596	\$2	\$200,598	\$21,250	\$5,800	\$227,648
18	Chromium Sulfate Producers	\$19,593	\$1	\$19,594	\$36,226	\$3,200	\$59,020
19	Chemical Distributors	\$3,856,632	\$0	\$3,856,632	\$0	\$0	\$3,856,632
20	Textile Dyeing	\$1,505,488	\$44,605	\$1,550,094	\$1,236,379	\$1,383,800	\$4,170,272
21	Colored Glass Producers	\$53,934 \$4,870,044	\$4	\$53,938	\$2,555	\$1,200	\$57,693
21A	Fiber, Flat, and Container Glass	\$1,379,941	\$0 \$0	\$1,379,941	\$0 \$070.700	\$0	\$1,379,941
22 23	Printing	\$298,720 \$0	\$3,857 \$0	\$302,577	\$373,708	\$171,700	\$847,985
23 24	Leather Tanning Chromium Catalyst Users	\$633,348	\$0 \$45	\$0 \$633,393	\$0 \$143.158	\$0 \$20,200	\$0 \$045.754
24A	Chromium Catalyst Users (Service)	\$033,346 \$278,102	\$8,735	\$286,837	\$143,158 \$0	\$39,200 \$33,900	\$815,751 \$220,727
25	Refractory Brick Producers	\$278,102 \$28,146	\$6,733 \$42	\$28,188	\$29,900	\$5,300 \$5,300	\$320,737 \$63,388
26A	Woodworking (general industry)	\$903,350	\$0	\$903,350	\$29,900	\$5,300 \$0	\$903,350
26B	Woodworking (maritime industry)	\$22,190	\$0	\$22,190	\$0	\$0	\$22,190
26C	Woodworking (construction industry)	\$7,961,289	\$229,988	\$8,191,277	\$5,444,838	\$2,906,900	\$16,543,015
26D	Woodworking (government)	\$125,649	\$3,997	\$129,646	\$48,096	\$27,600	\$205,342
27	Solid Waste Incineration	\$326,124	\$66,100	\$392,224	\$0	\$80,200	\$472,424
27A	Incinerators (government)	\$17,980	\$5,042	\$23,022	\$0	\$19,700	\$42,722
28	Oil and Gas Well Drilling	\$0	\$0	\$0	\$0	\$0	\$0
29	Portland Cement Producers	\$0	\$0	\$0	\$0	\$0	\$0
30	Superalloy Producers	\$134,042	\$0	\$134,042	\$0	\$0	\$134,042
31B	Construction (Refractory Repair)	\$428,211	\$28,821	\$457,032	\$460,158	\$99,800	\$1,016,991
31C	Construction (Hazardous Waste Work)	\$87,604	\$54,552	\$142,157	\$90,563	\$107,500	\$340,219
31CG	Haz. Waste (government)	\$76,723	\$32,523	\$109,246	\$0	\$60,900	\$170,146
31D	Construction (Industrial Rehabilitation)	\$60,445	\$0	\$60,445	\$0	\$0	\$60,445
31DG	Industrial Rehab. (government)	\$38,466	\$0	\$38,466	\$0	\$0	\$38,466
32A	Ready-Mixed Concrete	\$0	\$0	\$0	\$0	\$0	\$0
32	Precast Concrete Products Producers	\$0	\$0	\$0	\$0	\$0	\$0
	General Industry (including Government)	\$191,757,721	\$3,039,034	\$194,796,756	\$80,123,213	\$9,378,700	\$284,298,668
	Construction	\$67,469,379	\$1,244,297	\$68,713,676	\$5,995,559	\$3,114,200	\$77,823,435
	Maritime	\$23,138,693	\$1,220,626	\$24,359,319	\$5,661,140	\$407,800	\$30,428,259
	Total	\$282,365,793	\$5,503,957	\$287,869,751	\$91,779,911	\$12,900,700	\$392,550,362

(a) Excludes Transfer of PPE Payments.

Source: U.S. Dept. of Labor, OSHA, Office of Regulatory Analysis, based on Shaw, 2006.

## BILLING CODE 4510-26-C

Table VIII–4 also shows the costs by application group. The various types of welding represent the most expensive

application group, accounting for 51 percent of the total costs.

Table VIII–5 presents OSHA's final total annualized costs by cost category

for each of the alternative PELs considered by OSHA in the proposed rule. At a discount rate of 7 percent, total costs range from \$112 million for