

Table 1

Initial Exposure Monitoring (§ 1910.1026(d)(2)(i) and (ii); Contract Cost for an IH Technician to Perform Initial Exposure Monitoring

This table calculates the contract cost for the employer to have an outside industrial hygiene technician perform initial exposure monitoring by collecting personal breathing-zone air samples to characterize full-shift exposure for each job classification in each work area during each shift. To determine the number of new employers that may need to conduct initial monitoring OSHA

$$\text{Cost} = (\text{INITCONTTIME} * \text{CONTCOST} * \# \text{INIT} * \% \text{INITADD} * (\% \text{LEARN} + \% \text{CONT}) * (\# \text{PLANTS} * 5\%))$$

Variables:

INITCONTTIME = Time, in hours, for an outside contractor (industrial hygiene technician) to conduct the initial monitoring.

CONTCOST = Cost per hour for an outside industrial hygiene contractor

INIT = Number of initial exposure measurements initial plus confirmation.

% INITADD = Percent of plants that have not satisfied initial monitoring requirement

% LEARN = Percent of plants that will develop in-house monitoring capability

% CONT = Percent of plants that will continue to use an outside contractor for monitoring

PLANTS = Number of plants represented by the model output

PLANTS (5%) = Number of plants represented by the model output * 5% (new employers)

Updated October 2019										
	Size	INITCONTTIME	CONTCOST	# INIT	% INITADD	% LEARN	% CONT	# PLANTS	# PLANTS (5%)	Item 13 Costs
SECTOR 1. ELECTROPLATING										
Hard Chrome	Large	20	\$52.52	2	25%	0%	100%	837	42	\$21,991
	Small	12	\$52.52	2	25%	0%	100%	1,576	79	\$24,832
Job Shop Chrome Plater	Large	12	\$52.52	2	25%	0%	100%	403	20	\$6,357
	Small	12	\$52.52	2	25%	0%	100%	759	38	\$11,962
Captive Shop Chrome Plater	Large	12	\$52.52	2	25%	0%	100%	550	28	\$8,666
	Small	12	\$52.52	2	25%	0%	100%	1,035	52	\$16,313
Job Shop Plater	Large	12	\$52.52	2	25%	0%	100%	403	20	\$6,357
	Small	12	\$52.52	2	25%	0%	100%	759	38	\$11,962
Captive Shop Plater	Large	12	\$52.52	2	25%	0%	100%	476	24	\$7,508
	Small	12	\$52.52	2	25%	0%	100%	897	45	\$14,132
Operator	Large	12	\$52.52	2	25%	0%	100%	837	42	\$13,195
	Small	12	\$52.52	2	25%	0%	100%	1,576	79	\$24,832
SECTOR 2A. WELDING										
GENERAL INDUSTRY										
SMAW	Large	12	\$52.52	2	25%	0%	90%	3,676	184	\$52,135
	Small	12	\$52.52	2	25%	0%	100%	4,120	206	\$64,910
GMAW	Large	12	\$52.52	2	25%	0%	90%	2,697	135	\$38,243
	Small	12	\$52.52	2	25%	0%	100%	3,021	151	\$47,606
TIG	Large	12	\$52.52	2	25%	0%	90%	817	41	\$11,584
	Small	12	\$52.52	2	25%	0%	100%	915	46	\$14,423
	Large	12	\$52.52	2	25%	0%	90%	327	16	\$4,631

Table 1

	Size	INITCONTTIME	CONTCOST	# INIT	% INITADD	% LEARN	% CONT	# PLANTS	# PLANTS (5%)	Item 13 Costs
SAW	Small	12	\$52.52	2	25%	0%	100%	366	18	\$5,763
Plasma Cutting	Large	12	\$52.52	2	25%	0%	90%	81	4	\$1,154
	Small	12	\$52.52	2	25%	0%	100%	91	5	\$1,441
Plasma Welding	Large	12	\$52.52	2	25%	0%	90%	81	4	\$1,154
	Small	12	\$52.52	2	25%	0%	100%	91	5	\$1,441
Resistance Welding	Large	12	\$52.52	2	25%	0%	90%	490	25	\$6,953
	Small	12	\$52.52	2	25%	0%	100%	550	27	\$8,660
MARITIME										
SMAW	Large	12	\$52.52	2	75%	0%	50%	18	1	\$427
	Small	12	\$52.52	2	75%	0%	90%	10	1	\$427
GMAW	Large	12	\$52.52	2	75%	0%	50%	25	1	\$594
	Small	12	\$52.52	2	75%	0%	90%	14	1	\$598
TIG	Large	12	\$52.52	2	75%	0%	50%	6	0.3	\$142
	Small	12	\$52.52	2	75%	0%	90%	3	0.2	\$128
FCAW	Large	12	\$52.52	2	75%	0%	50%	121	6	\$2,850
	Small	12	\$52.52	2	75%	0%	90%	68	3	\$2,907
Plasma Cutting	Large	12	\$52.52	2	75%	0%	50%	4	0	\$95
	Small	12	\$52.52	2	75%	0%	90%	2	0	\$85
Plasma Welding	Large	12	\$52.52	2	75%	0%	50%	2	0	\$47
	Small	12	\$52.52	2	75%	0%	90%	1	0	\$43
Oxy-fuel Cutting	Large	12	\$52.52	2	75%	0%	50%	4	0	\$95
	Small	12	\$52.52	2	75%	0%	90%	2	0	\$85
Air Carbon Arc Cutting	Large	12	\$52.52	2	75%	0%	50%	2	0	\$47
	Small	12	\$52.52	2	75%	0%	90%	1	0	\$43
Electric Torch Cutting	Large	12	\$52.52	2	75%	0%	50%	0	0	\$0
	Small	12	\$52.52	2	75%	0%	90%	0	0	\$0
Thermal Spray Tungsten Cutting	Large	12	\$52.52	2	75%	0%	50%	0	0	\$0
	Small	12	\$52.52	2	75%	0%	90%	0	0	\$0
SAW	Large	12	\$52.52	2	75%	0%	50%	16	1	\$380
	Small	12	\$52.52	2	75%	0%	90%	9	0	\$385
CONSTRUCTION										
SMAW	Large	12	\$52.52	2	25%	0%	95%	209	10	\$3,128

Table 1

	Size	INITCONTTIME	CONTCOST	# INIT	% INITADD	% LEARN	% CONT	# PLANTS	# PLANTS (5%)	Item 13 Costs
	Small	12	\$52.52	2	25%	0%	100%	1,673	84	\$26,360
Plasma Cutting	Large	12	\$52.52	2	25%	0%	95%	3	0	\$45
	Small	12	\$52.52	2	25%	0%	100%	22	1	\$348
GMAW	Large	12	\$52.52	2	25%	0%	95%	42	2	\$632
	Small	12	\$52.52	2	25%	0%	100%	335	17	\$5,272
Brazing	State	12	\$52.52	2	25%	0%	95%	21	1	\$316
	Local	12	\$52.52	2	25%	0%	100%	168	8	\$2,644
Metallizing	State	12	\$52.52	2	25%	0%	95%	4	0	\$60
	Local	12	\$52.52	2	25%	0%	100%	33	2	\$522
	GOVERNMENT									
SMAW	State	12	\$52.52	2	25%	0%	95%	20	1	\$301
	Local	12	\$52.52	2	25%	0%	100%	614	31	\$9,673
Plasma Cutting	State	12	\$52.52	2	25%	0%	95%	0	0	\$0
	Local	12	\$52.52	2	25%	0%	100%	8	0	\$127
GMAW	State	12	\$52.52	2	25%	0%	95%	4	0	\$60
	Local	12	\$52.52	2	25%	0%	100%	123	6	\$1,931
Brazing	State	12	\$52.52	2	25%	0%	95%	2	0	\$30
	Local	12	\$52.52	2	25%	0%	100%	61	3	\$966
Metallizing	State	12	\$52.52	2	25%	0%	95%	1	0	\$15
	Local	12	\$52.52	2	25%	0%	100%	12	1	\$190
SECTOR 2B. MILD STEEL WELDING	GENERAL INDUSTRY									
SMAW	Large	12	\$52.52	2	25%	0%	90%	4,929	246	\$69,903
	Small	12	\$52.52	2	25%	0%	100%	5,019	251	\$79,079
GMAW	Large	12	\$52.52	2	25%	0%	90%	3,615	181	\$51,266
	Small	12	\$52.52	2	25%	0%	100%	3,680	184	\$57,991
TIG	Large	12	\$52.52	2	25%	0%	90%	1,095	55	\$15,531
	Small	12	\$52.52	2	25%	0%	100%	1,115	56	\$17,573
SAW	Large	12	\$52.52	2	25%	0%	90%	438	22	\$6,212
	Small	12	\$52.52	2	25%	0%	100%	446	22	\$7,029
Plasma Cutting	Large	12	\$52.52	2	25%	0%	90%	110	5	\$1,553
	Small	12	\$52.52	2	25%	0%	100%	112	6	\$1,757
Plasma Welding	Large	12	\$52.52	2	25%	0%	90%	110	5	\$1,553
	Small	12	\$52.52	2	25%	0%	100%	112	6	\$1,757

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	Size	INITCONTTIME	CONTCOST	# INIT	% INITADD	% LEARN	% CONT	# PLANTS	# PLANTS (5%)	Item 13 Costs
Resistance Welding	Large	12	\$52.52	2	25%	0%	90%	657	33	\$9,318
	Small	12	\$52.52	2	25%	0%	100%	669	33	\$10,544
MARITIME										
SMAW	Large	12	\$52.52	2	75%	0%	50%	38	2	\$902
	Small	12	\$52.52	2	75%	0%	90%	22	1	\$940
GMAW	Large	12	\$52.52	2	75%	0%	50%	55	3	\$1,306
	Small	12	\$52.52	2	75%	0%	90%	31	2	\$1,325
TIG	Large	12	\$52.52	2	75%	0%	50%	13	1	\$309
	Small	12	\$52.52	2	75%	0%	90%	7	0	\$299
FCAW	Large	12	\$52.52	2	75%	0%	50%	259	13	\$6,127
	Small	12	\$52.52	2	75%	0%	90%	147	7	\$6,241
Plasma Cutting	Large	12	\$52.52	2	75%	0%	50%	8	0	\$190
	Small	12	\$52.52	2	75%	0%	90%	5	0	\$214
Plasma Welding	Large	12	\$52.52	2	75%	0%	50%	3	0	\$71
	Small	12	\$52.52	2	75%	0%	90%	0	0	\$0
Oxy-fuel Cutting	Large	12	\$52.52	2	75%	0%	50%	8	0	\$190
	Small	12	\$52.52	2	75%	0%	90%	0	0	\$0
Air Carbon Arc Cutting	Large	12	\$52.52	2	75%	0%	50%	3	0	\$71
	Small	12	\$52.52	2	75%	0%	90%	2	0	\$85
Electric Torch Cutting	Large	12	\$52.52	2	75%	0%	50%	0	0	\$0
	Small	12	\$52.52	2	75%	0%	90%	0	0	\$0
Thermal Spray Tungsten Cutting	Large	12	\$52.52	2	75%	0%	50%	0	0	\$0
	Small	12	\$52.52	2	75%	0%	90%	0	0	\$0
SAW	Large	12	\$52.52	2	75%	0%	50%	34	2	\$807
	Small	12	\$52.52	2	75%	0%	90%	19	1	\$812
CONSTRUCTION										
SMAW	Large	12	\$52.52	2	25%	0%	95%	313	16	\$4,692
	Small	12	\$52.52	2	25%	0%	100%	2,368	118	\$37,315
Plasma Cutting	Large	12	\$52.52	2	25%	0%	95%	4	0	\$60
	Small	12	\$52.52	2	25%	0%	100%	31	2	\$491
GMAW	Large	12	\$52.52	2	25%	0%	95%	62	3	\$932
	Small	12	\$52.52	2	25%	0%	100%	473	24	\$7,457
	State	12	\$52.52	2	25%	0%	95%	31	2	\$466

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	Size	INITCONTTIME	CONTCOST	# INIT	% INITADD	% LEARN	% CONT	# PLANTS	# PLANTS (5%)	Item 13 Costs
Brazing	Local	12	\$52.52	2	25%	0%	100%	237	12	\$3,736
Metallizing	Large	12	\$52.52	2	25%	0%	95%	6	0	\$90
	Small	12	\$52.52	2	25%	0%	100%	47	2	\$744
SECTOR 3. PAINTING										
General Industry (Aerospace)	Large	12	\$52.52	2	25%	0%	25%	50	2	\$195
	Small	12	\$52.52	2	25%	0%	75%	62	3	\$737
General Industry (Autobody)	Large	12	\$52.52	2	25%	0%	25%	330	17	\$1,301
	Small	12	\$52.52	2	25%	0%	75%	1,454	73	\$17,187
General Industry (Coil Coating)	Large	12	\$52.52	2	25%	0%	25%	101	5	\$398
	Small	12	\$52.52	2	25%	0%	75%	18	1	\$217
Maritime	Large	12	\$52.52	2	25%	0%	10%	274	14	\$432
	Small	12	\$52.52	2	25%	0%	90%	474	24	\$6,728
Construction	Large	12	\$52.52	2	25%	0%	25%	789	39	\$3,110
	Small	12	\$52.52	2	25%	0%	50%	4,197	210	\$33,065
Government	State	12	\$52.52	2	25%	0%	25%	17	1	\$67
	Local	12	\$52.52	2	25%	0%	25%	945	47	\$3,723
SECTOR 4. PRODUCERS OF CHROMATES										
ALL	Large	12	\$52.52	2	100%	0%	100%	2	0	\$117
	Small	12	\$52.52	2	0%	0%	0%	0	0	\$0
SECTOR 5. CHROMATE PIGMENT PROCEDU										
ALL	Large	20	\$52.52	2	25%	0%	100%	2	0	\$44
	Small	12	\$52.52	2	25%	0%	100%	1	0	\$13
SECTOR 6. CCA PRODUCERS										
ALL	Large	12	\$52.52	2	25%	0%	100%	3	0	\$41
	Small	12	\$52.52	2	0%	0%	0%	0	0	\$0
SECTOR 7. CHROMIUM CATALYST PRODUCERS										
ALL	Large	28	\$52.52	2	25%	0%	20%	5	0	\$34
	Small	12	\$52.52	2	0%	0%	0%	0	0	\$0
SECTOR 8. PAINT AND COATING PRODUCERS										
ALL	Large	12	\$52.52	2	25%	0%	75%	78	4	\$924
	Small	12	\$52.52	2	25%	0%	75%	123	6	\$1,453
SECTOR 9. PRINTING INK PRODUCERS										
ALL	Large	12	\$52.52	2	100%	0%	90%	2	0	\$126
	Small	12	\$52.52	2	100%	0%	90%	7	0	\$419

Table 1

	Size	INITCONTTIME	CONTCOST	# INIT	% INITADD	% LEARN	% CONT	# PLANTS	# PLANTS (5%)	Item 13 Costs
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS										
ALL	Large	12	\$52.52	2	25%	0%	100%	79	4	\$1,248
	Small	12	\$52.52	2	25%	0%	100%	39	2	\$610
SECTOR 11. PLATING MIXTURE PRODUCER										
ALL	Large	12	\$52.52	2	75%	0%	80%	6	0	\$224
	Small	12	\$52.52	2	75%	0%	75%	4	0	\$140
SECTOR 13. CHROMIUM METAL PRODUCER										
ALL	Large	28	\$52.52	2	100%	0%	100%	1	0	\$153
	Small	12	\$52.52	2	0%	0%	0%	0	0	\$0
SECTOR 14. IRON AND STEEL MILLS										
Alloy Stainless Steel	Large	20	\$52.52	2	75%	0%	90%	39	2	\$2,746
	Small	12	\$52.52	2	75%	0%	90%	12	1	\$528
Carbon Steel	Large	20	\$52.52	2	75%	0%	90%	116	6	\$8,237
	Small	12	\$52.52	2	75%	0%	90%	37	2	\$1,554
SECTOR 14.B FORGING INDUSTRY										
Reshaping	Large	12	\$52.52	2	75%	0%	90%	33	2	\$1,413
	Small	12	\$52.52	2	75%	0%	90%	31	2	\$1,331
SECTOR 15. IRON AND STEEL FOUNDRIES										
ALL	Large	28	\$52.52	2	25%	0%	90%	152	8	\$5,035
	Small	12	\$52.52	2	25%	0%	90%	111	6	\$1,569
SECTOR 17. CHROMIUM DYE PRODUCERS										
ALL	Large	12	\$52.52	2	25%	0%	100%	2	0	\$39
	Small	12	\$52.52	2	25%	0%	100%	1	0	\$13
SECTOR 18. CHROMIUM SULFATE PRODUCERS										
ALL	Large	12	\$52.52	2	0%	0%	0%	0	0	\$0
	Small	12	\$52.52	2	100%	0%	100%	5	0	\$293
SECTOR 19. CHEMICAL DISTRIBUTORS										
ALL	Large	12	\$52.52	2	75%	0%	100%	212	11	\$10,022
	Small	12	\$52.52	2	75%	0%	100%	1,600	80	\$75,621
SECTOR 20. TEXTILE DYEING										
ALL	Large	12	\$52.52	2	75%	0%	90%	307	15	\$13,059
	Small	12	\$52.52	2	75%	0%	90%	623	31	\$26,502
SECTOR 21. Colored Glass Producers										
General Industry	Large	12	\$52.52	2	75%	0%	90%	8	0	\$329
	Small	12	\$52.52	2	75%	0%	90%	24	1	\$1,042
	Large	12	\$52.52	2	75%	0%	90%	111	6	\$4,717

Table 1

	Size	INIT	CONT	# INIT	% INIT	% LEARN	% CONT	# PLANTS	# PLANTS (5%)	Item 13 Costs
Fiber, Flat and Container Glass	Small	12	\$52.52	2	75%	0%	90%	6	0	\$274
SECTOR 22. PRINTING										
ALL	Large	12	\$52.52	2	75%	0%	90%	78	4	\$3,315
	Small	12	\$52.52	2	75%	0%	90%	312	16	\$13,259
SECTOR 24. CHROMIUM CATALYST USERS										
Catalyst Users	Large	12	\$52.52	2	75%	0%	90%	193	10	\$8,190
	Small	12	\$52.52	2	0%	0%	90%	0	0	\$0
Chromium Catalyst Service Companies	Large	12	\$52.52	2	75%	0%	90%	25	1	\$1,055
	Small	12	\$52.52	2	75%	0%	90%	5	0	\$201
SECTOR 25. REFRACTORY BRICK PRODUCTION										
ALL	Large	12	\$52.52	2	75%	0%	90%	5	0	\$220
	Small	12	\$52.52	2	75%	0%	90%	0	0	\$0
SECTOR 26. WOODWORKING										
General Industry	Large	12	\$52.52	2	75%	0%	100%	143	7	\$6,756
	Small	12	\$52.52	2	75%	0%	100%	76	4	\$3,613
Maritime	Large	12	\$52.52	2	75%	0%	100%	36	2	\$1,697
	Small	12	\$52.52	2	75%	0%	100%	32	2	\$1,495
Construction	Large	12	\$52.52	2	75%	0%	100%	1,232	62	\$58,249
	Small	12	\$52.52	2	75%	0%	100%	4,932	247	\$233,152
Government	State	12	\$52.52	2	75%	0%	100%	17	1	\$807
	Local	12	\$52.52	2	75%	0%	100%	62	3	\$2,918
SECTOR 27. SOLID WASTE INCINERATION										
General Industry	Large	20	\$52.52	2	75%	0%	90%	39	2	\$2,797
	Small	12	\$52.52	2	75%	0%	90%	47	2	\$2,014
Government	State	12	\$52.52	2	75%	0%	25%	0	0	\$0
	Local	12	\$52.52	2	75%	0%	90%	24	1	\$1,007
SECTOR 30. SUPERALLOY PRODUCERS AND USERS										
ALL	Large	28	\$52.52	2	75%	0%	100%	18	1	\$1,934
	Small	12	\$52.52	2	0%	0%	0%	0	0	\$0
SECTOR 31. CONSTRUCTION										
Industrial Rehabilitation	Large	12	\$52.52	2	0%	0%	100%	54	3	\$0
	Small	12	\$52.52	2	0%	0%	100%	247	12	\$0
	State	12	\$52.52	2	100%	0%	100%	16	1	\$985
	Local	12	\$52.52	2	100%	0%	100%	93	5	\$5,844

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	Size	INITCONTTIME	CONTCOST	# INIT	% INITADD	% LEARN	% CONT	# PLANTS	# PLANTS (5%)	Item 13 Costs
Hazardous Waste-site Work	Large	12	\$52.52	2	75%	0%	90%	43	2	\$1,810
	Small	12	\$52.52	2	75%	0%	90%	180	9	\$7,652
	State	12	\$52.52	2	75%	0%	90%	1	0	\$37
	Local	12	\$52.52	2	75%	0%	90%	252	13	\$10,741
Refractory Brick Restoration	Large	12	\$52.52	2	0%	0%	90%	47	2	\$0
	Small	12	\$52.52	2	0%	0%	90%	185	9	\$0
Total								78,321	3,916	\$1,493,924

Table 2

Initial Exposure Monitoring (§ 1910.1026(d)(2)(i) and (ii); Contract Cost for a Laboratory to Conduct Analysis of Initial Exposure Monitoring Air Samples

Note: This table calculates the contract cost for the employer to have a laboratory conduct analysis of air samples collected during initial exposure monitoring. To determine the number of new employers that may

$$\text{Cost} = (\text{SAMPCOST} * \text{JOBCAT} * \text{SHIFTS} * \text{\#SAMPS} * \text{\#INIT} * \% \text{INITADD}) * \text{\#PLANTS}$$

Variables:

SAMPCOST = Variable cost per sample

JOBCAT = Number of job categories (covering each work area).

SHIFTS = Number of work shifts

\#SAMPS = Number of samples per exposure measurement

\#INIT = Number of initial exposure measurements required to be satisfied equals 2

\%INITADD =

Percent of plants that have not satisfied initial monitoring requirement

\#PLANTS = Number of plants represented by the model output

\#PLANTS (5%) = Number of plants represented by the model output * 5%

Updated October 2019										
	Size	SAMPCOST	JOBCAT	SHIFTS	\#SAMPS	\#INIT	\% INITADD	\# PLANTS	\# PLANTS (5%)	Item 13 COSTS
SECTOR 1. ELECTROPLATING										
Hard Chrome	Large	\$84	7	2	3	2	25%	837	42	\$73,761
	Small	\$84	7	1	3	2	25%	1,576	79	\$69,409
Job Shop Chrome Plater	Large	\$84	1	2	3	2	25%	403	20	\$5,077
	Small	\$84	1	1	3	2	25%	759	38	\$4,776
Captive Shop Chrome Plater	Large	\$84	1	2	3	2	25%	550	28	\$6,921
	Small	\$84	1	1	3	2	25%	1,035	52	\$6,514
Job Shop Plater	Large	\$84	1	2	3	2	25%	403	20	\$5,077
	Small	\$84	1	1	3	2	25%	759	38	\$4,776
Captive Shop Plater	Large	\$84	1	2	3	2	25%	476	24	\$5,996
	Small	\$84	1	1	3	2	25%	897	45	\$5,643
Operator	Large	\$84	1	2	3	2	25%	837	42	\$10,537
	Small	\$84	1	1	3	2	25%	1,576	79	\$9,916
SECTOR 2A. WELDING		GENERAL INDUSTRY								
SMAW	Large	\$84	1	3	2	2	25%	3,676	184	\$46,261
	Small	\$84	1	1	3	2	25%	4,120	206	\$25,919
GMAW	Large	\$84	1	3	2	2	25%	2,697	135	\$33,934

Table 2

	Size	SAMPCOST	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	# PLANTS (5%)	Item 13 COSTS
	Small	\$84	1	1	3	2	25%	3,021	151	\$19,009
TIG	Large	\$84	1	3	2	2	25%	817	41	\$10,279
	Small	\$84	1	1	3	2	25%	915	46	\$5,759
SAW	Large	\$84	1	3	2	2	25%	327	16	\$4,109
	Small	\$84	1	1	3	2	25%	366	18	\$2,301
Plasma Cutting	Large	\$84	1	3	2	2	25%	81	4	\$1,024
	Small	\$84	1	1	3	2	25%	91	5	\$575
Plasma Welding	Large	\$84	1	3	2	2	25%	81	4	\$1,024
	Small	\$84	1	1	3	2	25%	91	5	\$575
Resistance Welding	Large	\$84	1	3	2	2	25%	490	25	\$6,170
	Small	\$84	1	1	3	2	25%	550	27	\$3,458
	MARITIME									
SMAW	Large	\$84	1	3	1	2	75%	18	1	\$341
	Small	\$84	1	2	1	2	75%	10	1	\$126
GMAW	Large	\$84	1	3	1	2	75%	25	1	\$474
	Small	\$84	1	2	1	2	75%	14	1	\$177
TIG	Large	\$84	1	3	1	2	75%	6	0.3	\$114
	Small	\$84	1	2	1	2	75%	3	0.2	\$38
FCAW	Large	\$84	1	3	1	2	75%	121	6	\$2,276
	Small	\$84	1	2	1	2	75%	68	3	\$860
Plasma Cutting	Large	\$84	1	3	1	2	75%	4	0.2	\$76
	Small	\$84	1	2	1	2	75%	2	0.1	\$25
Plasma Welding	Large	\$84	1	3	1	2	75%	2	0.1	\$38
	Small	\$84	1	2	1	2	75%	1	0.1	\$13
Oxy-fuel Cutting	Large	\$84	1	3	1	2	75%	4	0.2	\$76
	Small	\$84	1	2	1	2	75%	2	0.1	\$25
Air Carbon Arc Cutting	Large	\$84	1	3	1	2	75%	2	0.1	\$38
	Small	\$84	1	2	1	2	75%	1	0.1	\$13
Electric Torch Cutting	Large	\$84	1	3	1	2	75%	0	-	-
	Small	\$84	1	2	1	2	75%	0	-	-

Table 2

	Size	SAMPCOST	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	# PLANTS (5%)	Item 13 COSTS
Thermal Spray Tungsten Cutting	Large	\$84	1	3	1	2	75%	0	-	-
	Small	\$84	1	2	1	2	75%	0	-	-
SAW	Large	\$84	1	3	1	2	75%	16	1	\$303
	Small	\$84	1	2	1	2	75%	9	0.5	\$114
	CONSTRUCTION									
SMAW	Large	\$84	1	3	1	2	25%	209	10	\$1,315
	Small	\$84	1	1	1	2	25%	1,673	84	\$3,508
Plasma Cutting	Large	\$84	1	3	1	2	25%	3	0.2	\$19
	Small	\$84	1	1	1	2	25%	22	1	\$46
GMAW	Large	\$84	1	3	1	2	25%	42	2	\$266
	Small	\$84	1	1	1	2	25%	335	17	\$702
Brazing	State	\$84	1	3	1	2	25%	21	1	\$133
	Local	\$84	1	1	1	2	25%	168	8	\$352
Metallizing	State	\$84	1	3	1	2	25%	4	0.2	\$25
	Local	\$84	1	1	1	2	25%	33	2	\$70
	GOVERNMENT									
SMAW	State	\$84	1	1	1	2	25%	20	1	\$42
	Local	\$84	1	1	1	2	25%	614	31	\$1,287
Plasma Cutting	State	\$84	1	1	1	2	25%	0	-	-
	Local	\$84	1	1	1	2	25%	8	0.4	\$17
GMAW	State	\$84	1	1	1	2	25%	4	0	\$8
	Local	\$84	1	1	1	2	25%	123	6	\$257
Brazing	State	\$84	1	1	1	2	25%	2	0.1	\$4
	Local	\$84	1	1	1	2	25%	61	3	\$129
Metallizing	State	\$84	1	1	1	2	25%	1	0.1	\$2
	Local	\$84	1	1	1	2	25%	12	1	\$25
SECTOR 2B. MILD STEEL WELDING	GENERAL INDUSTRY									
SMAW	Large	\$84	1	3	2	2	25%	4,929	246	\$62,028
	Small	\$84	1	1	3	2	25%	5,019	251	\$31,576
GMAW	Large	\$84	1	3	2	2	25%	3,615	181	\$45,490

Table 2

	Size	SAMPCOST	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	# PLANTS (5%)	Item 13 COSTS
	Small	\$84	1	1	3	2	25%	3,680	184	\$23,156
TIG	Large	\$84	1	3	2	2	25%	1,095	55	\$13,781
	Small	\$84	1	1	3	2	25%	1,115	56	\$7,017
SAW	Large	\$84	1	3	2	2	25%	438	22	\$5,512
	Small	\$84	1	1	3	2	25%	446	22	\$2,807
Plasma Cutting	Large	\$84	1	3	2	2	25%	110	5	\$1,378
	Small	\$84	1	1	3	2	25%	112	6	\$702
Plasma Welding	Large	\$84	1	3	2	2	25%	110	5	\$1,378
	Small	\$84	1	1	3	2	25%	112	6	\$702
Resistance Welding	Large	\$84	1	3	2	2	25%	657	33	\$8,269
	Small	\$84	1	1	3	2	25%	669	33	\$4,210
	MARITIME									
SMAW	Large	\$84	1	3	1	2	75%	38	2	\$721
	Small	\$84	1	2	1	2	75%	22	1	\$278
GMAW	Large	\$84	1	3	1	2	75%	55	3	\$1,043
	Small	\$84	1	2	1	2	75%	31	2	\$392
TIG	Large	\$84	1	3	1	2	75%	13	1	\$247
	Small	\$84	1	2	1	2	75%	7	0.4	\$89
FCAW	Large	\$84	1	3	1	2	75%	259	13	\$4,893
	Small	\$84	1	2	1	2	75%	147	7	\$1,846
Plasma Cutting	Large	\$84	1	3	1	2	75%	8	0.4	\$152
	Small	\$84	1	2	1	2	75%	5	0.3	\$63
Plasma Welding	Large	\$84	1	3	1	2	75%	3	0	\$57
	Small	\$84	1	2	1	2	75%		-	-
Oxy-fuel Cutting	Large	\$84	1	3	1	2	75%	8	0.4	\$152
	Small	\$84	1	2	1	2	75%		0.0	\$0
Air Carbon Arc Cutting	Large	\$84	1	3	1	2	75%	3	0.2	\$57
	Small	\$84	1	2	1	2	75%	2	0.1	\$25
Electric Torch Cutting	Large	\$84	1	3	1	2	75%	0	-	-

Table 2

	Size	SAMPCOST	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	# PLANTS (5%)	Item 13 COSTS
	Small	\$84	1	2	1	2	75%	0	-	-
Thermal Spray Tungsten Cutting	Large	\$84	1	3	1	2	75%	0	-	-
	Small	\$84	1	2	1	2	75%	0	-	-
SAW	Large	\$84	1	3	1	2	75%	34	2	\$645
	Small	\$84	1	2	1	2	75%	19	1	\$240
	CONSTRUCTION									
SMAW	Large	\$84	1	3	1	2	25%	313	16	\$1,972
	Small	\$84	1	1	1	2	25%	2,368	118	\$4,967
Plasma Cutting	Large	\$84	1	3	1	2	25%	4	0.2	\$25
	Small	\$84	1	1	1	2	25%	31	2	\$65
GMAW	Large	\$84	1	3	1	2	25%	62	3	\$392
	Small	\$84	1	1	1	2	25%	473	24	\$992
Brazing	State	\$84	1	3	1	2	25%	31	2	\$196
	Local	\$84	1	1	1	2	25%	237	12	\$497
Metallizing	State	\$84	1	3	1	2	25%	6	0.3	\$38
	Local	\$84	1	1	1	2	25%	47	2	\$99
SECTOR 3. PAINTING	GENERAL INDUSTRY									
AEROSPACE	Large	\$84	2	3	3	2	25%	50	2	\$1,871
	Small	\$84	2	1	3	2	25%	62	3	\$785
General Industry (Autobody)	Large	\$84	2	1	1	2	25%	330	17	\$1,386
	Small	\$84	2	1	1	2	25%	1,454	73	\$6,100
General Industry (Coil Coating)	Large	\$84	2	2	3	2	25%	101	5	\$2,540
	Small	\$84	2	1	3	2	25%	18	1	\$231
Maritime	Large	\$84	3	3	1	2	25%	274	14	\$5,180
	Small	\$84	3	1	1	2	25%	474	24	\$2,985
Construction	Large	\$84	3	3	1	2	25%	789	39	\$14,901
	Small	\$84	3	1	1	2	25%	4,197	210	\$26,406
Government	State	\$84	2	3	1	2	25%	17	1	\$215
	Local	\$84	2	1	1	2	25%	945	47	\$3,964
SECTOR 4. PRODUCERS OF CHROMATES										

Table 2

	Size	SAMPCOST	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	# PLANTS (5%)	Item 13 COSTS
ALL	Large	\$84	4	3	3	2	100%	2	0.1	\$562
	Small	\$84	0	1	3	2	0%	0	0.0	\$0
SECTOR 5. CHROMATE PIGMENT PROCEDURES										
ALL	Large	\$84	9	2	3	2	25%	2	0.1	\$189
	Small	\$84	1	1	3	2	25%	1	0.04	\$5
SECTOR 6. CCA PRODUCERS										
ALL	Large	\$84	4	3	3	2	25%	3	0	\$196
	Small	\$84	0	3	0	2	0%	0	0	\$0
SECTOR 7. CHROMIUM CATALYST PRODUCERS										
ALL	Large	\$84	14	3	3	2	25%	5	0	\$1,230
	Small	\$84	0	1	3	2	0%	0	0	\$0
SECTOR 8. PAINT AND COATING PRODUCEI										
ALL	Large	\$84	4	2	3	2	25%	78	4	\$3,937
	Small	\$84	4	2	3	2	25%	123	6	\$6,187
SECTOR 9. PRINTING INK PRODUCERS										
ALL	Large	\$84	5	1	9	2	100%	2	0	\$837
	Small	\$84	3	1	5	2	100%	7	0	\$930
SECTOR 10. PLASTIC COLORANT PRODUCEI										
ALL	Large	\$84	4	3	3	2	25%	79	4	\$5,978
	Small	\$84	1	1	3	2	25%	39	2	\$244
SECTOR 11. PLATING MIXTURE PRODUCER										
ALL	Large	\$84	3	1	3	2	75%	6	0	\$335
	Small	\$84	3	1	3	2	75%	4	0	\$223
SECTOR 13. CHROMIUM METAL PRODUCEI										
ALL	Large	\$84	16	3	3	2	100%	1	0	\$1,255
	Small	\$84	0	1	1	2	0%	0	0	\$0
SECTOR 14. IRON AND STEEL MILLS										
Alloy and Stainless Steel	Large	\$84	8	3	3	2	75%	39	2	\$17,541
	Small	\$84	4	1	3	2	75%	12	1	\$938
Carbon Steel	Large	\$84	8	3	3	2	75%	116	6	\$52,623
	Small	\$84	4	1	1	2	75%	37	2	\$919
SECTOR 14.B FORGING INDUSTRY										

Table 2

	Size	SAMPCOST	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	# PLANTS (5%)	Item 13 COSTS
Reshaping	Large	\$84	5	1	3	2	75%	33	2	\$3,134
	Small	\$84	2	1	3	2	75%	31	2	\$1,181
SECTOR 15. IRON AND STEEL FOUNDRIES										
ALL	Large	\$84	9	3	5	2	25%	152	8	\$43,078
	Small	\$84	5	1	5	2	25%	111	6	\$5,802
SECTOR 17. CHROMIUM DYE PRODUCERS										
ALL	Large	\$84	7	1	21	2	25%	2	0	\$771
	Small	\$84	5	1	7	2	25%	1	0	\$61
SECTOR 18. CHROMIUM SULFATE PRODUCERS										
ALL	Large	\$84	0	1	3	2	0%	0	0	\$0
	Small	\$84	2	1	3	2	100%	5	0	\$234
SECTOR 19. CHEMICAL DISTRIBUTORS										
ALL	Large	\$84	1	1	3	2	75%	212	11	\$4,002
	Small	\$84	1	1	3	2	75%	1,600	80	\$30,196
SECTOR 20. TEXTILE DYEING										
ALL	Large	\$84	3	3	3	2	75%	307	15	\$52,144
	Small	\$84	2	1	2	2	75%	623	31	\$15,677
SECTOR 21. COLORED GLASS PRODUCERS										
General Industry	Large	\$84	3	3	12	2	75%	8	0	\$5,256
	Small	\$84	2	1	4	2	75%	24	1	\$1,233
Fiber, Flat and Container Glass	Large	\$84	5	1	1	2	75%	111	6	\$3,488
	Small	\$84	1	1	1	2	75%	6	0	\$41
SECTOR 22. PRINTING										
ALL	Large	\$84	3	3	2	2	75%	78	4	\$8,824
	Small	\$84	2	1	2	2	75%	312	16	\$7,843
SECTOR 24. CHROMIUM CATALYST USERS										
Catalyst Users	Large	\$84	2	3	3	2	75%	193	10	\$21,803
	Small	\$84	0	1	3	2	0%	0	0	\$0
Chromium Catalyst Service	Large	\$84	0	3	3	2	75%	25	1	\$0
	Small	\$84	0	1	3	2	75%	5	0.2	\$0.000
SECTOR 25. REFRACTORY BRICK PRODUCERS										
ALL	Large	\$84	9	1	15	2	75%	5	0	\$4,402

Table 2

	Size	SAMPCOST	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	# PLANTS (5%)	Item 13 COSTS
	Small	\$84	0	1	0	2	75%	0	0	\$0
SECTOR 26. WOODWORKING										
General Industry	Large	\$84	1	1	2	2	75%	143	7	\$1,798
	Small	\$84	1	1	2	2	75%	76	4	\$962
Maritime	Large	\$84	1	1	1	2	75%	36	2	\$226
	Small	\$84	1	1	1	2	75%	32	2	\$199
Construction	Large	\$84	1	1	1	2	75%	1,232	62	\$7,753
	Small	\$84	1	1	1	2	75%	4,932	247	\$31,033
Government	State	\$84	1	1	1	2	75%	17	1	\$107
	Local	\$84	1	1	1	2	75%	62	3	\$388
SECTOR 27. SOLID WASTER INCINERATION										
General Industry	Large	\$84	6	3	15	2	75%	39	2	\$67,012
	Small	\$84	6	1	3	2	75%	47	2	\$5,361
Government	State	\$84	0	3	15	2	75%	0	0	\$0
	Local	\$84	6	1	3	2	75%	24	1	\$2,680
SECTOR 30. SUPERALLOY PRODUCERS AND										
ALL	Large	\$84	12	3	3	2	75%	18	1	\$11,915
	Small	\$84	0	3	3	2	0%	0	0	\$0
SECTOR 31. CONSTRUCTION										
Industrial Rehabilitation	Large	\$84	1	1	1	2	0%	54	3	\$0
	Small	\$84	1	1	1	2	0%	247	12	\$0
	State	\$84	1	1	1	2	100%	16	1	\$131
	Local	\$84	1	1	1	2	100%	93	5	\$778
Hazardous Waste-site Work	Large	\$84	1	1	1	2	75%	43	2	\$268
	Small	\$84	1	1	1	2	75%	180	9	\$1,132
	State	\$84	1	1	1	2	75%	1	0	\$5
	Local	\$84	1	1	1	2	75%	252	13	\$1,588
Refractory Brick Restoration	Large	\$84	1	1	1	2	0%	47	2	\$0
	Small	\$84	1	1	1	2	0%	185	9	\$0
Total								78,321	3,916	\$1,113,483

Table 4

Semi-Annual Exposure Monitoring (Paragraph (d)(2)(iii)); Contract Cost for an IH Technician to Perform Semi-Annual Exposure Monitoring

This table calculates the contract cost for the employer to have an outside industrial hygiene technician perform semi-annual exposure monitoring.

$$\text{Cost} = (\text{SEMICONTTIME} * \text{CONTCOST} * \text{SEMI-ANNUALLY} * \% \text{NOTSEMI} * \% \text{ABOVE AL} * \% \text{CONT}) * \# \text{PLANTS}$$

Variables:

SEMICONTTIME = Time, in hours, for an outside contractor (industrial hygiene technician) to conduct semi-annual monitoring

CONTCOST = Cost per hour for an outside industrial hygiene contractor

SEMI - ANNUALLY = 2 times per year semi-annually

%NOTSEMI = Percent of plants not performing semi-annual monitoring requirements

%ABOVEAL = Percent of plants that have an employee in at least one job category at or above the AL

%CONT = Percent of plants that will continue to use an outside contractor for monitoring

#PLANTS = Number of plants represented by the model input

		0							
	Size	SEMICONTTIME	CONTCOST	SEMI - ANNUALLY	% NOTSEMI	% ABOVEAL	% CONT	# PLANTS	Item 13 COST
SECTOR 1. ELECTROPLATING									
Hard Chrome	Large	12	\$52.52	2	100%	49.00%	100.00%	837	\$517,226
	Small	12	\$52.52	2	100%	49.00%	100.00%	1,576	\$973,422
Job Shop Chrome Plater	Large	12	\$52.52	2	100%	11.00%	100.00%	403	\$55,944
	Small	12	\$52.52	2	100%	11.00%	100.00%	759	\$105,266
Captive Shop Chrome Plater	Large	12	\$52.52	2	100%	14.00%	100.00%	550	\$97,060
	Small	12	\$52.52	2	100%	14.00%	100.00%	1,035	\$182,702
Job Shop Plater	Large	12	\$52.52	2	100%	10.00%	100.00%	403	\$50,858
	Small	12	\$52.52	2	100%	10.00%	100.00%	759	\$95,696
Captive Shop Plater	Large	12	\$52.52	2	100%	13.00%	100.00%	476	\$78,082
	Small	12	\$52.52	2	100%	13.00%	100.00%	897	\$146,977
Operator	Large	12	\$52.52	2	100%	16.00%	100.00%	837	\$168,890
	Small	12	\$52.52	2	100%	16.00%	100.00%	1,576	\$317,852
SECTOR 2A. WELDING									
GENERAL INDUSTRY									
SMAW	Large	12	\$52.52	2	100%	0.92%	90.00%	3,676	\$38,371
	Small	12	\$52.52	2	100%	0.92%	100.00%	4,120	\$47,773
GMAW	Large	12	\$52.52	2	100%	0.73%	90.00%	2,697	\$22,334
	Small	12	\$52.52	2	100%	0.73%	100.00%	3,021	\$27,802

Table 4

	Size	SEMI-CONT TIME	CONT COST	SEMI - ANNUALLY	% NOT SEMI	% ABOVE AVEAL	% CONT	# PLANTS	Item 13 COST
TIG	Large	12	\$52.52	2	100%	0.00%	90.00%	817	\$0
	Small	12	\$52.52	2	100%	0.00%	100.00%	915	\$0
SAW	Large	0	\$52.52	2	100%	0.00%	90.00%	327	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	366	\$0
Plasma Cutting	Large	12	\$52.52	2	100%	0.00%	90.00%	81	\$0
	Small	12	\$52.52	2	100%	0.00%	100.00%	91	\$0
Plasma Welding	Large	12	\$52.52	2	100%	0.00%	90.00%	81	\$0
	Small	12	\$52.52	2	100%	0.00%	100.00%	91	\$0
Resistance Welding	Large	12	\$52.52	2	100%	0.00%	90.00%	490	\$0
	Small	12	\$52.52	2	100%	0.00%	100.00%	550	\$0
MARITIME									
SMAW	Large	12	\$52.52	2	100%	0.00%	50.00%	18	\$0
	Small	12	\$52.52	2	100%	0.00%	90.00%	10	\$0
GMAW	Large	12	\$52.52	2	100%	0.00%	50.00%	25	\$0
	Small	12	\$52.52	2	100%	0.00%	90.00%	14	\$0
TIG	Large	12	\$52.52	2	100%	0.00%	50.00%	6	\$0
	Small	12	\$52.52	2	100%	0.00%	90.00%	3	\$0
FCAW	Large	12	\$52.52	2	100%	0.00%	50.00%	121	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	68	\$0
Plasma Cutting	Large	12	\$52.52	2	100%	0.00%	50.00%	4	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	2	\$0
Plasma Welding	Large	12	\$52.52	2	100%	0.00%	50.00%	2	\$0
	Small	12	\$52.52	2	100%	0.00%	90.00%	1	\$0
Oxy-fuel Cutting	Large	12	\$52.52	2	100%	0.00%	50.00%	4	\$0
	Small	12	\$52.52	2	100%	0.00%	90.00%	2	\$0
Air Carbon Arc Cutting	Large	12	\$52.52	2	100%	0.00%	50.00%	2	\$0
	Small	12	\$52.52	2	100%	0.00%	90.00%	1	\$0
Electric Torch Cutting	Large	0	\$52.52	2	100%	0.00%	50.00%	0	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	0	\$0

Table 4

	Size	SEMI	CONTCOST	SEMI - ANNUALLY	% NOTSEMI	% ABOVEAL	% CONT	# PLANTS	Item 13 COST
Thermal Spray Tungsten Cutting	Large	0	\$52.52	2	100%	0.00%	50.00%	0	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	0	\$0
SAW	Large	0	\$52.52	2	100%	0.00%	50.00%	16	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	9	\$0
CONSTRUCTION									
SMAW	Large	12	\$52.52	2	100%	0.00%	95.00%	209	\$0
	Small	12	\$52.52	2	100%	0.00%	100.00%	1,673	\$0
Plasma Cutting	Large	0	\$52.52	2	100%	0.00%	95.00%	3	\$0
	Small	12	\$52.52	2	100%	0.00%	100.00%	22	\$0
GMAW	Large	12	\$52.52	2	100%	0.00%	95.00%	42	\$0
	Small	12	\$52.52	2	100%	0.00%	100.00%	335	\$0
Brazing	Large	12	\$52.52	2	100%	0.00%	95.00%	21	\$0
	Small	12	\$52.52	2	100%	0.00%	100.00%	168	\$0
Metallizing	Large	12	\$52.52	2	100%	0.00%	95.00%	4	\$0
	Small	12	\$52.52	2	100%	0.00%	100.00%	33	\$0
GOVERNMENT									
SMAW	State	12	\$52.52	2	100%	0.00%	95.00%	20	\$0
	Local	12	\$52.52	2	100%	0.00%	100.00%	614	\$0
Plasma Cutting	State	12	\$52.52	2	100%	0.00%	95.00%	0	\$0
	Local	12	\$52.52	2	100%	0.00%	100.00%	8	\$0
GMAW	State	12	\$52.52	2	100%	0.00%	95.00%	4	\$0
	Local	12	\$52.52	2	100%	0.00%	100.00%	123	\$0
Brazing	State	12	\$52.52	2	100%	0.00%	95.00%	2	\$0
	Local	12	\$52.52	2	100%	0.00%	100.00%	61	\$0
Metallizing	State	12	\$52.52	2	100%	0.00%	95.00%	1	\$0
	Local	12	\$52.52	2	100%	0.00%	100.00%	12	\$0
SECTOR 2B. MILD STEEL WELDING									
GENERAL INDUSTRY									
SMAW	Large	12	\$52.52	2	100%	0.00%	90.00%	4,929	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	5,019	\$0
	Large	0	\$52.52	2	100%	0.00%	90.00%	3,615	\$0

Table 4

	Size	SEMI-CONT TIME	CONT COST	SEMI - ANNUALLY	% NOT SEMI	% ABOVE AVEAL	% CONT	# PLANTS	Item 13 COST
GMAW	Small	0	\$52.52	2	100%	0.00%	100.00%	3,680	\$0
TIG	Large	0	\$52.52	2	100%	0.00%	90.00%	1,095	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	1,115	\$0
SAW	Large	0	\$52.52	2	100%	0.00%	90.00%	438	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	446	\$0
Plasma Cutting	Large	0	\$52.52	2	100%	0.00%	90.00%	110	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	112	\$0
Plasma Welding	Large	0	\$52.52	2	100%	0.00%	90.00%	110	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	112	\$0
Resistance Welding	Large	0	\$52.52	2	100%	0.00%	90.00%	657	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	669	\$0
MARITIME									
SMAW	Large	0	\$52.52	2	100%	0.00%	50.00%	38	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	22	\$0
GMAW	Large	0	\$52.52	2	100%	0.00%	50.00%	55	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	31	\$0
TIG	Large	0	\$52.52	2	100%	0.00%	50.00%	13	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	7	\$0
FCAW	Large	0	\$52.52	2	100%	0.00%	50.00%	259	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	147	\$0
Plasma Cutting	Large	0	\$52.52	2	100%	0.00%	50.00%	8	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	5	\$0
Plasma Welding	Large	0	\$52.52	2	100%	0.00%	50.00%	3	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	0	\$0
Oxy-fuel Cutting	Large	0	\$52.52	2	100%	0.00%	50.00%	8	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	0	\$0
Air Carbon Arc Cutting	Large	0	\$52.52	2	100%	0.00%	50.00%	3	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	2	\$0
	Large	0	\$52.52	2	100%	0.00%	50.00%	0	\$0

Table 4

	Size	SEMI-CONT TIME	CONT COST	SEMI - ANNUALLY	% NOT SEMI	% ABOVE AVEAL	% CONT	# PLANTS	Item 13 COST
Electric Torch Cutting	Small	0	\$52.52	2	100%	0.00%	90.00%	0	\$0
Thermal Spray Tungsten Cutting	Large	0	\$52.52	2	100%	0.00%	50.00%	0	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	0	\$0
SAW	Large	0	\$52.52	2	100%	0.00%	50.00%	34	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	19	\$0
CONSTRUCTION									
SMAW	Large	0	\$52.52	2	100%	0.00%	95.00%	313	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	2,368	\$0
Plasma Cutting	Large	0	\$52.52	2	100%	0.00%	95.00%	4	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	31	\$0
GMAW	Large	0	\$52.52	2	100%	0.00%	95.00%	62	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	473	\$0
Brazing	Large	0	\$52.52	2	100%	0.00%	95.00%	31	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	237	\$0
Metallizing	State	0	\$52.52	2	100%	0.00%	95.00%	6	\$0
	Local	0	\$52.52	2	100%	0.00%	100.00%	47	\$0
SECTOR 3. PAINTING									
AEROSPACE	Large	12	\$52.52	2	100%	28.00%	25.00%	50	\$4,372
	Small	12	\$52.52	2	100%	9.00%	75.00%	62	\$5,309
General Industry (Autobody)	Large	12	\$52.52	2	100%	5.00%	25.00%	330	\$5,205
	Small	12	\$52.52	2	100%	5.00%	75.00%	1,454	\$68,750
General Industry (Coil Coating)	Large	12	\$52.52	2	100%	8.00%	25.00%	101	\$2,545
	Small	12	\$52.52	2	100%	8.00%	75.00%	18	\$1,388
Maritime	Large	12	\$52.52	2	100%	36.00%	10.00%	274	\$12,453
	Small	12	\$52.52	2	100%	36.00%	90.00%	474	\$193,772
Construction	Large	12	\$52.52	2	100%	22.00%	25.00%	789	\$54,732
	Small	12	\$52.52	2	100%	22.00%	50.00%	4,197	\$581,941
Government	State	12	\$52.52	2	100%	12.00%	25.00%	17	\$646
	Local	12	\$52.52	2	100%	12.00%	25.00%	945	\$35,738

Table 4

	Size	SEMI-CONT	CONT COST	SEMI - ANNUALLY	% NOT SEMI	% ABOVE AVEAL	% CONT	# PLANTS	Item 13 COST
SECTOR 4. PRODUCERS OF CHROMATES									
ALL	Large	12	\$52.52	2	100%	45.00%	100.00%	2	\$1,056
	Small	0	\$52.52	2	100%	0.00%	0.00%	0	\$0
SECTOR 5. CHROMATE PIGMENT PROCEDURES									
ALL	Large	12	\$52.52	2	100%	71.00%	100.00%	2	\$1,491
	Small	12	\$52.52	2	100%	50.00%	100.00%	1	\$525
SECTOR 6. CCA PRODUCERS									
ALL	Large	12	\$52.52	2	100%	33.00%	100.00%	3	\$1,078
	Small	0	\$52.52	2	100%	0.00%	0.00%	0	\$0
SECTOR 7. CHROMIUM CATALYST PRODUCERS									
ALL	Large	20	\$52.52	2	100%	100.00%	20.00%	5	\$1,956
	Small	0	\$52.52	2	100%	0.00%	0.00%	0	\$0
SECTOR 8. PAINT AND COATING PRODUCERS									
ALL	Large	12	\$52.52	2	100%	13.00%	75.00%	78	\$9,614
	Small	12	\$52.52	2	100%	13.00%	75.00%	123	\$15,107
SECTOR 9. PRINTING INK PRODUCERS									
ALL	Large	12	\$52.52	2	100%	69.00%	90.00%	2	\$1,735
	Small	12	\$52.52	2	100%	69.00%	90.00%	7	\$5,783
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS									
ALL	Large	12	\$52.52	2	100%	51.00%	100.00%	79	\$50,905
	Small	12	\$52.52	2	100%	51.00%	100.00%	39	\$24,899
SECTOR 11. PLATING MIXTURE PRODUCERS									
ALL	Large	12	\$52.52	2	100%	100.00%	80.00%	6	\$5,968
	Small	12	\$52.52	2	100%	100.00%	75.00%	4	\$3,730
SECTOR 13. CHROMIUM METAL PRODUCERS									
ALL	Large	12	\$52.52	2	100%	100.00%	100.00%	1	\$1,310
	Small	0	\$52.52	2	0%	0.00%	0.00%	0	\$0
SECTOR 14. IRON AND STEEL MILLS									
Alloy and Stainless Steel	Large	12	\$52.52	2	100%	38.00%	90.00%	39	\$16,693
	Small	12	\$52.52	2	100%	38.00%	90.00%	12	\$5,354
Carbon Steel	Large	0	\$52.52	2	100%	0.00%	90.00%	116	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	37	\$0

Table 4

	Size	SEMI-CONT	CONT COST	SEMI - ANNUALLY	% NOT SEMI	% ABOVE AVEAL	% CONT	# PLANTS	Item 13 COST
SECTOR 14.B FORGING INDUSTRY									
Reshaping	Large	12	\$52.52	2	100%	63.00%	90.00%	33	\$23,731
	Small	12	\$52.52	2	100%	63.00%	90.00%	31	\$22,362
SECTOR 15. IRON AND STEEL FOUNDRIES									
ALL	Large	20	\$52.52	2	100%	100.00%	90.00%	152	\$287,687
	Small	12	\$52.52	2	100%	100.00%	90.00%	111	\$125,536
SECTOR 17. CHROMIUM DYE PRODUCERS									
ALL	Large	12	\$52.52	2	100%	38.00%	100.00%	2	\$1,197
	Small	12	\$52.52	2	100%	38.00%	100.00%	1	\$399
SECTOR 18. CHROMIUM SULFATE PRODUCERS									
ALL	Large	0	\$52.52	2	100%	0.00%	0.00%	0	\$0
	Small	12	\$52.52	2	100%	27.00%	100.00%	5	\$1,585
SECTOR 19. CHEMICAL DISTRIBUTORS									
ALL	Large	0	\$52.52	2	100%	0.00%	100.00%	212	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	1,600	\$0
SECTOR 20. TEXTILE DYEING									
ALL	Large	0	\$52.52	2	100%	0.00%	90.00%	307	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	623	\$0
SECTOR 21. COLORED GLASS PRODUCERS									
General Industry	Large	12	\$52.52	2	100%	25.00%	90.00%	8	\$2,194
	Small	0	\$52.52	2	100%	0.00%	90.00%	24	\$0
Fiber, Flat, Container Glass	Large	12	\$52.52	2	100%	20.00%	90.00%	111	\$25,155
	Small	12	\$52.52	2	100%	0.00%	90.00%	6	\$0
SECTOR 22. PRINTING									
ALL	Large	0	\$52.52	2	100%	0.00%	90.00%	78	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	312	\$0
SECTOR 24. CHROMIUM CATALYST USERS									
Catalyst Users	Large	12	\$52.52	2	100%	9.00%	90.00%	193	\$19,657
	Small	0	\$52.52	2	100%	0.00%	90.00%	0	\$0
Chromium Catalyst Service Companies	Large	12	\$52.52	2	100%	0.00%	90.00%	25	\$0
	Small	12	\$52.52	2	100%	0.00%	90.00%	5	\$0
SECTOR 25. REFRACTORY BRICK PRODUCERS									

Table 4

	Size	SEMI-CONT	CONTCOST	SEMI - ANNUALLY	% NOTSEMI	% ABOVEAL	% CONT	# PLANTS	Item 13 COST
ALL	Large	0	\$52.52	2	100%	0.00%	90.00%	5	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	0	\$0
SECTOR 26. WOODWORKING									
General Industry	Large	0	\$52.52	2	100%	0.00%	100.00%	143	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	76	\$0
Maritime	Large	0	\$52.52	2	100%	0.00%	100.00%	36	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	32	\$0
Construction	Large	12	\$52.52	2	100%	22.00%	100.00%	1,232	\$341,727
	Small	12	\$52.52	2	100%	22.00%	100.00%	4,932	\$1,367,826
Government	State	12	\$52.52	2	100%	22.00%	100.00%	17	\$4,735
	Local	12	\$52.52	2	100%	22.00%	100.00%	62	\$17,120
SECTOR 27. SOLID WASTER INCINERATION									
General Industry	Large	0	\$52.52	2	100%	0.00%	90.00%	39	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	47	\$0
Government	State	0	\$52.52	2	100%	0.00%	25.00%	0	\$0
	Local	0	\$52.52	2	100%	0.00%	90.00%	24	\$0
SECTOR 30. SUPERALLOY PRODUCERS AND USERS									
ALL	Large	0	\$52.52	2	100%	0.00%	100.00%	18	\$0
	Small	0	\$52.52	2	100%	0.00%	0.00%	0	\$0
SECTOR 31. CONSTRUCTION									
Industrial Rehabilitation	Large	0	\$52.52	2	100%	0.00%	100.00%	54	\$0
	Small	0	\$52.52	2	100%	0.00%	100.00%	247	\$0
	State	0	\$52.52	2	100%	0.00%	100.00%	16	\$0
	Local	0	\$52.52	2	100%	0.00%	100.00%	93	\$0
Hazardous Waste-site Work	Large	0	\$52.52	2	100%	0.00%	90.00%	43	\$0
	Small	0	\$52.52	2	100%	0.00%	90.00%	180	\$0
	State	0	\$52.52	2	100%	0.00%	90.00%	1	\$0
	Local	0	\$52.52	2	100%	0.00%	90.00%	252	\$0
Refractory Brick Restoration	Large	0	\$52.52	2	100%	60.00%	90.00%	47	\$0
	Small	0	\$52.52	2	100%	60.00%	90.00%	185	\$0
Total								78,321	\$6,281,224

Table 5

Semi-Annual Exposure Monitoring (Paragraph (d)(2)(iii)); Contract Cost for a Laboratory to Conduct Analysis of Semi-Annual Exposure Monitoring Air Samples

This table calculates the contract cost for the employer to have a laboratory conduct analysis of air samples collected during semi-annual exposure monitoring.

$$\text{Cost} = (\text{SAMPCOST} * \text{JOBAL} * \text{SHIFTS} * \text{\#SAMPS} * 2 * \% \text{NOTSEMI} * \% \text{ABOVE AL}) * \text{\#PLANTS}$$

Variables:

SAMPCOST = Variable cost per sample

JOBAL = Number of job categories exposed at or above the AL.

SHIFTS = Number of work shifts.

\#SAMPS = Number of samples per exposure measurement.

SEMI = 2 times per year (semi-annual).

\%NOTSEMI = Percent of plants not performing semi-annual monitoring requirements.

\%ABOVEAL =

Percent of plants that have an employee in at least one job category at or above the AL.

\#PLANTS = Number of plants represented by the model input.

		SAMPCOST	JOBAL	SHIFTS	\#SAMPS	SEMI	\%NOTSEMI	\%ABOVEAL	\#PLANTS	Item 13 COST
SECTOR 1. ELECTROPLATING										
Hard Chrome	Large	\$84	1	2	3	2	100%	49%	837	\$413,059
	Small	\$84	1	1	3	2	100%	49%	1,576	\$388,690
Job Shop Chrome Plater	Large	\$84	1	2	3	2	100%	11%	403	\$44,677
	Small	\$84	1	1	3	2	100%	11%	759	\$42,033
Captive Shop Chrome Plater	Large	\$84	1	2	3	2	100%	14%	550	\$77,513
	Small	\$84	1	1	3	2	100%	14%	1,035	\$72,953
Job Shop Plater	Large	\$84	1	2	3	2	100%	10%	403	\$40,615
	Small	\$84	1	1	3	2	100%	10%	759	\$38,212
Captive Shop Plater	Large	\$84	1	2	3	2	100%	13%	476	\$62,356
	Small	\$84	1	1	3	2	100%	13%	897	\$58,688
Operator	Large	\$84	1	2	3	2	100%	16%	837	\$134,877
	Small	\$84	1	1	3	2	100%	16%	1,576	\$126,919
SECTOR 2A. WELDING										
GENERAL INDUSTRY										
SMAW	Large	\$84	1	3	2	2	100%	1%	3,676	\$34,048
	Small	\$84	1	1	3	2	100%	1%	4,120	\$19,076
GMAW	Large	\$84	1	3	2	2	100%	1%	2,697	\$19,818
	Small	\$84	1	1	3	2	100%	1%	3,021	\$11,101

Table 5

	Size	SAMPCOST	JOBAL	SHIFTS	#SAMPS	SEMI	%NOTSEMI	%ABOVEAL	#PLANTS	Item 13 COST
TIG	Large	\$84	1	3	2	2	100%	0%	817	\$0
	Small	\$84	1	1	3	2	100%	0%	915	\$0
SAW	Large	\$84	0	3	2	2	100%	0%	327	\$0
	Small	\$84	0	1	3	2	100%	0%	366	\$0
Plasma Cutting	Large	\$84	1	3	2	2	100%	0%	81	\$0
	Small	\$84	1	1	3	2	100%	0%	91	\$0
Plasma Welding	Large	\$84	1	3	2	2	100%	0%	81	\$0
	Small	\$84	1	1	3	2	100%	0%	91	\$0
Resistance Welding	Large	\$84	1	3	2	2	100%	0%	490	\$0
	Small	\$84	1	1	3	2	100%	0%	550	\$0
MARITIME										
SMAW	Large	\$84	1	3	1	2	100%	0%	18	\$0
	Small	\$84	1	2	1	2	100%	0%	10	\$0
GMAW	Large	\$84	1	3	1	2	100%	0%	25	\$0
	Small	\$84	1	2	1	2	100%	0%	14	\$0
TIG	Large	\$84	1	3	1	2	100%	0%	6	\$0
	Small	\$84	1	2	1	2	100%	0%	3	\$0
FCAW	Large	\$84	1	3	1	2	100%	0%	121	\$0
	Small	\$84	1	2	1	2	100%	0%	68	\$0
Plasma Cutting	Large	\$84	1	3	1	2	100%	0%	4	\$0
	Small	\$84	1	2	1	2	100%	0%	2	\$0
Plasma Welding	Large	\$84	1	3	1	2	100%	0%	2	\$0
	Small	\$84	1	2	1	2	100%	0%	1	\$0
Oxy-fuel Cutting	Large	\$84	1	3	1	2	100%	0%	4	\$0
	Small	\$84	1	2	1	2	100%	0%	2	\$0
Air Carbon Arc Cutting	Large	\$84	1	3	1	2	100%	0%	2	\$0
	Small	\$84	1	2	1	2	100%	0%	1	\$0
Electric Torch Cutting	Large	\$84	0	3	1	2	100%	0%	0	\$0
	Small	\$84	0	2	1	2	100%	0%	0	\$0
Thermal Spray Tungsten	Large	\$84	0	3	1	2	100%	0%	0	\$0

Table 5

	Size	SAMPCOST	JOBAL	SHIFTS	#SAMPS	SEMI	%NOTSEMI	%ABOVEAL	#PLANTS	Item 13 COST
Thermal Spray Tungsten Cutting	Small	\$84	0	2	1	2	100%	0%	0	\$0
SAW	Large	\$84	0	3	1	2	100%	0%	16	\$0
	Small	\$84	0	2	1	2	100%	0%	9	\$0
CONSTRUCTION										
SMAW	Large	\$84	1	3	1	2	100%	0%	209	\$0
	Small	\$84	1	1	1	2	100%	0%	1,673	\$0
Plasma Cutting	Large	\$84	0	3	1	2	100%	0%	3	\$0
	Small	\$84	1	1	1	2	100%	0%	22	\$0
GMAW	Large	\$84	1	3	1	2	100%	0%	42	\$0
	Small	\$84	1	1	1	2	100%	0%	335	\$0
Brazing	State	\$84	1	3	1	2	100%	0%	21	\$0
	Local	\$84	1	1	1	2	100%	0%	168	\$0
Metallizing	State	\$84	1	3	1	2	100%	0%	4	\$0
	Local	\$84	1	1	1	2	100%	0%	33	\$0
GOVERNMENT										
SMAW	State	\$84	1	1	1	2	100%	0%	20	\$0
	Local	\$84	1	1	1	2	100%	0%	614	\$0
Plasma Cutting	State	\$84	1	1	1	2	100%	0%	0	\$0
	Local	\$84	1	1	1	2	100%	0%	8	\$0
GMAW	State	\$84	1	1	1	2	100%	0%	4	\$0
	Local	\$84	1	1	1	2	100%	0%	123	\$0
Brazing	State	\$84	1	1	1	2	100%	0%	2	\$0
	Local	\$84	1	1	1	2	100%	0%	61	\$0
Metallizing	State	\$84	1	1	1	2	100%	0%	1	\$0
	Local	\$84	1	1	1	2	100%	0%	12	\$0
SECTOR 2B. MILD STEEL WELDING										
GENERAL INDUSTRY										
SMAW	Large	\$84	0	3	2	2	100%	0%	4,929	\$0
	Small	\$84	0	1	3	2	100%	0%	5,019	\$0
GMAW	Large	\$84	0	3	2	2	100%	0%	3,615	\$0
	Small	\$84	0	1	3	2	100%	0%	3,680	\$0

Table 5

	Size	SAMPCOST	JOBAL	SHIFTS	#SAMPS	SEMI	%NOTSEMI	%ABOVEAL	#PLANTS	Item 13 COST
TIG	Large	\$84	0	3	2	2	100%	0%	1,095	\$0
	Small	\$84	0	1	3	2	10000%	0%	1,115	\$0
SAW	Large	\$84	0	3	2	2	100%	0%	438	\$0
	Small	\$84	0	1	3	2	100%	0%	446	\$0
Plasma Cutting	Large	\$84	0	3	2	2	100%	0%	110	\$0
	Small	\$84	0	1	3	2	100%	0%	112	\$0
Plasma Welding	Large	\$84	0	3	2	2	100%	0%	110	\$0
	Small	\$84	0	1	3	2	100%	0%	112	\$0
Resistance Welding	Large	\$84	0	3	2	2	100%	0%	657	\$0
	Small	\$84	0	1	3	2	100%	0%	669	\$0
MARITIME										
SMAW	Large	\$84	0	3	1	2	100%	0%	38	\$0
	Small	\$84	0	2	1	2	100%	0%	22	\$0
GMAW	Large	\$84	0	3	1	2	100%	0%	55	\$0
	Small	\$84	0	2	1	2	100%	0%	31	\$0
TIG	Large	\$84	0	3	1	2	100%	0%	13	\$0
	Small	\$84	0	2	1	2	100%	0%	7	\$0
FCAW	Large	\$84	0	3	1	2	100%	0%	259	\$0
	Small	\$84	0	2	1	2	100%	0%	147	\$0
Plasma Cutting	Large	\$84	0	3	1	2	100%	0%	8	\$0
	Small	\$84	0	2	1	2	100%	0%	5	\$0
Plasma Welding	Large	\$84	0	3	1	2	100%	0%	3	\$0
	Small	\$84	0	2	1	2	100%	0%	0	\$0
Oxy-fuel Cutting	Large	\$84	0	3	1	2	100%	0%	8	\$0
	Small	\$84	0	2	1	2	100%	0%	0	\$0
Air Carbon Arc Cutting	Large	\$84	0	3	1	2	100%	0%	3	\$0
	Small	\$84	0	2	1	2	100%	0%	2	\$0
Electric Torch Cutting	Large	\$84	0	3	1	2	100%	0%	0	\$0
	Small	\$84	0	2	1	2	100%	0%	0	\$0
Thermal Spray Tungsten	Large	\$84	0	3	1	2	100%	0%	0	\$0

Table 5

	Size	SAMPCOST	JOBAL	SHIFTS	#SAMPs	SEMI	%NOTSEMI	%ABOVEAL	#PLANTS	Item 13 COST
Thermal Spray Tungsten Cutting	Small	\$84	0	2	1	2	100%	0%	0	\$0
SAW	Large	\$84	0	3	1	2	100%	0%	34	\$0
	Small	\$84	0	2	1	2	100%	0%	19	\$0
CONSTRUCTION										
SMAW	Large	\$84	0	3	1	2	100%	0%	313	\$0
	Small	\$84	0	1	1	2	100%	0%	2,368	\$0
Plasma Cutting	Large	\$84	0	3	1	2	100%	0%	4	\$0
	Small	\$84	0	1	1	2	100%	0%	31	\$0
GMAW	Large	\$84	0	3	1	2	100%	0%	62	\$0
	Small	\$84	0	1	1	2	100%	0%	473	\$0
Brazing	Large	\$84	0	3	1	2	100%	0%	31	\$0
	Small	\$84	0	1	1	2	100%	0%	237	\$0
Metallizing	Large	\$84	0	3	1	2	100%	0%	6	\$0
	Small	\$84	0	1	1	2	100%	0%	47	\$0
SECTOR 3. PAINTING										
AEROSPACE	Large	\$84	1	3	3	2	100%	28%	50	\$20,950
	Small	\$84	1	1	3	2	100%	9%	62	\$2,827
General Industry (Autobody)	Large	\$84	1	1	1	2	100%	5%	330	\$2,771
	Small	\$84	1	1	1	2	100%	5%	1,454	\$12,201
General Industry (Coil Coating)	Large	\$84	1	2	3	2	100%	8%	101	\$8,129
	Small	\$84	1	1	3	2	100%	8%	18	\$739
Maritime	Large	\$84	2	3	1	2	100%	36%	274	\$99,448
	Small	\$84	0	1	1	2	100%	36%	474	\$0
Construction	Large	\$84	1	3	1	2	100%	22%	789	\$87,418
	Small	\$84	1	1	1	2	100%	22%	4,197	\$154,914
Government	State	\$84	1	3	1	2	100%	12%	17	\$1,031
	Local	\$84	1	1	1	2	100%	12%	945	\$19,027
SECTOR 4. PRODUCERS OF CHROMATES										
ALL	Large	\$84	3	3	3	2	100%	45%	2	\$3,797
	Small	\$84	0	1	3	2	100%	0%	0	\$0

Table 5

	Size	SAMPCOST	JOBAL	SHIFTS	#SAMPS	SEMI	%NOTSEMI	%ABOVEAL	#PLANTS	Item 13 COST
SECTOR 5. CHROMATE PIGMENT PROCEDURES										
ALL	Large	\$84	5	2	3	2	100%	71%	2	\$5,955
	Small	\$84	1	1	3	2	100%	50%	1	\$210
SECTOR 6. CCA PRODUCERS										
ALL	Large	\$84	1	3	3	2	100%	33%	3	\$1,291
	Small	\$84	0	3	0	2	100%	0%	0	\$0
SECTOR 7. CHROMIUM CATALYST PRODUCERS										
ALL	Large	\$84	6	3	3	2	100%	100%	5	\$42,184
	Small	\$84	0	1	3	2	100%	0%	0	\$0
SECTOR 8. PAINT AND COATING PRODUCERS										
ALL	Large	\$84	1	2	3	2	100%	13%	78	\$10,237
	Small	\$84	1	2	3	2	100%	13%	123	\$16,086
SECTOR 9. PRINTING INK PRODUCERS										
ALL	Large	\$84	3	1	9	2	100%	69%	2	\$6,928
	Small	\$84	2	1	5	2	100%	69%	7	\$8,553
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS										
ALL	Large	\$84	2	3	3	2	100%	51%	79	\$121,960
	Small	\$84	2	1	3	2	100%	51%	39	\$19,885
SECTOR 11. PLATING MIXTURE PRODUCERS										
ALL	Large	\$84	1	1	3	2	100%	100%	6	\$2,979
	Small	\$84	1	1	3	2	100%	100%	4	\$1,986
SECTOR 13. CHROMIUM METAL PRODUCERS										
ALL	Large	\$84	2	3	3	2	100%	100%	1	\$3,138
	Small	\$84	0	1	1	2	0%	0%	0	\$0
SECTOR 14. IRON AND STEEL MILLS										
Alloy Stainless Steel	Large	\$84	3	3	3	2	100%	38%	39	\$66,656
	Small	\$84	1	1	3	2	100%	38%	12	\$2,376
Carbon Steel	Large	\$84	0	3	3	2	100%	0%	116	\$0
	Small	\$84	0	1	1	2	100%	0%	37	\$0
SECTOR 14.B FORGING INDUSTRY										
Forging Industry	Large	\$84	4	1	3	2	100%	63%	33	\$42,116
	Small	\$84	2	1	3	2	100%	63%	31	\$19,843
SECTOR 15. IRON AND STEEL FOUNDRIES										

Table 5

	Size	SAMPCOST	JOBAL	SHIFTS	#SAMPS	SEMI	%NOTSEMI	%ABOVEAL	#PLANTS	Item 13 COST
ALL	Large	\$84	6	3	5	2	100%	100%	152	\$2,297,486
	Small	\$84	5	1	5	2	100%	100%	111	\$464,139
SECTOR 17. CHROMIUM DYE PRODUCERS										
ALL	Large	\$84	6	1	21	2	100%	38%	2	\$20,078
	Small	\$84	6	1	7	2	100%	38%	1	\$2,231
SECTOR 18. CHROMIUM SULFATE PRODUCERS										
ALL	Large	\$84	0	1	3	2	100%	0%	0	\$0
	Small	\$84	1	1	3	2	100%	27%	5	\$633
SECTOR 19. CHEMICAL DISTRIBUTORS										
ALL	Large	\$84	0	1	3	2	100%	0%	212	\$0
	Small	\$84	0	1	3	2	100%	0%	1,600	\$0
SECTOR 20. TEXTILE DYEING										
ALL	Large	\$84	0	3	3	2	100%	0%	307	\$0
	Small	\$84	0	1	2	2	100%	0%	623	\$0
SECTOR 21. COLORED GLASS PRODUCERS										
General Industry	Large	\$84	1	3	12	2	100%	25%	8	\$11,680
	Small	\$84	0	1	4	2	100%	0%	24	\$0
Fiber, Flat, and Container Glass	Large	\$84	3	1	1	2	100%	20%	111	\$11,161
	Small	\$84	0	1	1	2	100%	0%	6	\$0
SECTOR 22. PRINTING										
ALL	Large	\$84	0	3	2	2	100%	0%	78	\$0
	Small	\$84	0	1	2	2	100%	0%	312	\$0
SECTOR 24. CHROMIUM CATALYST USERS										
Catalyst User	Large	\$84	2	3	3	2	100%	9%	193	\$52,327
	Small	\$84	0	1	3	2	100%	0%	0	\$0
Chromium Catalyst Service Companies	Large	\$84	0	3	3	2	100%	0%	25	\$0
	Small	\$84	0	1	3	2	100%	0%	5	\$0
SECTOR 25. REFRACTORY BRICK PRODUCERS										
ALL	Large	\$84	0	1	15	2	100%	0%	5	\$0
	Small	\$84	0	1	0	2	100%	0%	0	\$0
SECTOR 26. WOODWORKING										
General Industry	Large	\$84	0	1	2	2	100%	0%	143	\$0

Table 5

	Size	SAMPCOST	JOBAL	SHIFTS	#SAMPS	SEMI	%NOTSEMI	%ABOVEAL	#PLANTS	Item 13 COST
	Small	\$84	0	1	2	2	100%	0%	76	\$0
Maritime	Large	\$84	0	1	1	2	100%	0%	36	\$0
	Small	\$84	0	1	1	2	100%	0%	32	\$0
Construction	Large	\$84	1	1	1	2	100%	22%	1,232	\$45,484
	Small	\$84	1	1	1	2	100%	22%	4,932	\$182,059
Government	State	\$84	1	1	1	2	100%	22%	17	\$630
	Local	\$84	1	1	1	2	100%	22%	62	\$2,279
SECTOR 27. SOLID WASTER INCINERATION										
General Industry	Large	\$84	0	3	15	2	100%	0%	39	\$0
	Small	\$84	0	1	3	2	100%	0%	47	\$0
Government	State	\$84	0	3	15	2	100%	0%	0	\$0
	Local	\$84	0	1	3	2	100%	0%	24	\$0
SECTOR 30. SUPERALLOY PRODUCERS AND USERS										
ALL	Large	\$84	0	3	3	2	100%	0%	18	\$0
	Small	\$84	0	3	3	2	100%	0%	0	\$0
SECTOR 31. CONSTRUCTION										
Industrial Rehabilitation	Large	\$84	0	1	1	2	100%	0%	54	\$0
	Small	\$84	0	1	1	2	100%	0%	247	\$0
	State	\$84	0	1	1	2	100%	0%	16	\$0
	Local	\$84	0	1	1	2	100%	0%	93	\$0
Hazardous Waste-site Work	Large	\$84	0	1	1	2	100%	0%	43	\$0
	Small	\$84	0	1	1	2	100%	0%	180	\$0
	State	\$84	0	1	1	2	100%	0%	1	\$0
	Local	\$84	0	1	1	2	100%	0%	252	\$0
Refractory Brick Restoration	Large	\$84	0	1	1	2	100%	60%	47	\$0
	Small	\$84	0	1	1	2	100%	60%	185	\$0
TOTAL									78,321	\$5,460,453

Table 3

TABLE 3: Semi-Annual Exposure Monitoring (Paragraph (d)(2)(iii)); Employee Time and Cost to Conduct Semi-Annual Exposure Monitoring

This table calculates the burden hours and cost of employee time to conduct semi-annual exposure monitoring. When initial monitoring results equal or exceed the AL and are at or below the PEL, employers must continue to monitor employees at least every 6 months to ensure that exposures remain at or below the PEL.

$$\text{COST} = \text{BURDEN HOURS} * \text{NON SUPEWAGE}$$

$$\text{BURDEN HOURS} = (\text{ADMINTIME} * \text{NONSUPEWAGE} * \text{JOBAL} * \text{SHIFTS} * \text{\#SAMPS} * 2 * \% \text{NOTSEMI} * \% \text{ABOVEAL} * (\% \text{INHOUSE} + \% \text{LEARN}) * \text{\#PLANTS})$$

Variables:

ADMINTIME = In-house administrative time (e.g., for pump calibration and report writing) per sample, in hours.

NONSUPEWAGE = Non-supervisory wage rate. \$/hr.

JOBAL = Number of job categories exposed at or above the AL

SHIFTS = Number of work shifts.

\#SAMPS = Number of samples per exposure measurement

SEMI-ANNUALLY = # times per year (semi-annually)

\%NOTSEMI = Percent of plants not performing semi-annual monitoring requirements.

\%ABOVEAL = Percent of plants that have an employee in at least one job category at or above the AL.

\%INHOUSE = Percent of plants already with in-house monitoring capabilities.

\%LEARN = Percent of plants that will develop in-house monitoring capability.

\#PLANTS = Number of plants represented by the model input.

VARIABLES	SIZE	JOBAL	SHIFTS	\#SAMPS	SEMI-ANNUALLY	\%NOTSEMI	\%ABOVEAL	\%INHOUSE	\%LEARN	\#PLANTS	RESPONDENTS	RESPONSES	ADMINTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING																
Hard Chrome	Large	1	2	3	2	100%	49%	0%	0%	837	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	49%	0%	0%	1,576	-	-	0.5	-	\$32.54	\$ -
Job Shop Chrome Plater	Large	1	2	3	2	100%	11%	0%	0%	403	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	11%	0%	0%	759	-	-	0.5	-	\$32.54	\$ -
Captive Shop Chrome Plater	Large	1	2	3	2	100%	14%	0%	0%	550	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	14%	0%	0%	1,035	-	-	0.5	-	\$32.54	\$ -
Job Shop Plater	Large	1	2	3	2	100%	10%	0%	0%	403	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	10%	0%	0%	759	-	-	0.5	-	\$32.54	\$ -
Captive Shop Plater	Large	1	2	3	2	100%	13%	0%	0%	476	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	13%	0%	0%	897	-	-	0.5	-	\$32.54	\$ -
Operator	Large	1	2	3	2	100%	16%	0%	0%	837	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	16%	0%	0%	1,576	-	-	0.5	-	\$32.54	\$ -
SECTOR 2A. WELDING																
GENERAL INDUSTRY																
SMAW	Large	1	3	2	2	100%	1%	10%	0%	3,676	20	41	0.5	20	\$32.54	\$ 660
	Small	1	1	3	2	100%	1%	0%	0%	4,120	-	-	1.0	-	\$32.54	\$ -
GMAW	Large	1	3	2	2	100%	1%	10%	0%	2,697	12	24	0.5	12	\$32.54	\$ 384
	Small	1	1	3	2	100%	1%	0%	0%	3,021	-	-	1.0	-	\$32.54	\$ -
TIG	Large	1	3	2	2	100%	0%	10%	0%	817	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	0%	0%	0%	915	-	-	1.0	-	\$32.54	\$ -
SAW	Large	0	3	2	2	100%	0%	10%	0%	327	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0%	0%	0%	366	-	-	1.0	-	\$32.54	\$ -
Plasma Cutting	Large	1	3	2	2	100%	0%	10%	0%	81	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	0%	0%	0%	91	-	-	1.0	-	\$32.54	\$ -
Plasma Welding	Large	1	3	2	2	100%	0%	10%	0%	81	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	0%	0%	0%	91	-	-	1.0	-	\$32.54	\$ -
Resistance Welding	Large	1	3	2	2	100%	0%	10%	0%	490	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	0%	0%	0%	550	-	-	1.0	-	\$32.54	\$ -
MARITIME																
SMAW	Large	1	3	1	2	100%	0%	50%	0%	18	-	-	0.5	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0%	10%	0%	10	-	-	1.0	-	\$32.54	\$ -
GMAW	Large	1	3	1	2	100%	0%	50%	0%	25	-	-	0.5	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0%	10%	0%	14	-	-	1.0	-	\$32.54	\$ -
TIG	Large	1	3	1	2	100%	0%	50%	0%	6	-	-	0.5	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0%	10%	0%	3	-	-	1.0	-	\$32.54	\$ -
	Large	1	3	1	2	100%	0%	50%	0%	121	-	-	0.5	-	\$32.54	\$ -

Table 3

VARIABLES	SIZE	JOBAL	SHIFTS	#SAMPs	SEMI-ANNUALLY	%NOTSEMI	%ABOVEAL	%INHOUSE	%LEARN	#PLANTS	RESPONDENTS	RESPONSES	ADMINTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
FCAW	Small	1	2	1	2	100%	0%	10%	0%	68	-	-	1.0	-	\$32.54	\$ -
Plasma Cutting	Large	1	3	1	2	100%	0%	50%	0%	4	-	-	0.5	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0%	10%	0%	2	-	-	1.0	-	\$32.54	\$ -
Plasma Welding	Large	1	3	1	2	100%	0%	50%	0%	2	-	-	0.5	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0%	10%	0%	1	-	-	1.0	-	\$32.54	\$ -
Oxy-fuel Cutting	Large	1	3	1	2	100%	0%	50%	0%	4	-	-	0.5	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0%	10%	0%	2	-	-	1.0	-	\$32.54	\$ -
Air Carbon Arc Cutting	Large	1	3	1	2	100%	0%	50%	0%	2	-	-	0.5	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0%	10%	0%	1	-	-	1.0	-	\$32.54	\$ -
Electric Torch Cutting	Large	0	3	1	2	100%	0%	50%	0%	0	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	0	-	-	1.0	-	\$32.54	\$ -
Thermal Spray Tungsten Cutting	Large	0	3	1	2	100%	0%	50%	0%	0	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	0	-	-	1.0	-	\$32.54	\$ -
SAW	Large	0	3	1	2	100%	0%	50%	0%	16	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	9	-	-	1.0	-	\$32.54	\$ -
CONSTRUCTION																
SMAW	Large	1	3	1	2	100%	0%	5%	0%	209	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	1	2	100%	0%	0%	0%	1,673	-	-	1.0	-	\$32.54	\$ -
Plasma Cutting	Large	0	3	1	2	100%	0%	5%	0%	3	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	1	2	100%	0%	0%	0%	22	-	-	1.0	-	\$32.54	\$ -
GMAW	Large	1	3	1	2	100%	0%	5%	0%	42	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	1	2	100%	0%	0%	0%	335	-	-	1.0	-	\$32.54	\$ -
Brazing	State	1	3	1	2	100%	0%	5%	0%	21	-	-	0.5	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0%	0%	0%	168	-	-	1.0	-	\$32.54	\$ -
Metallizing	State	1	3	1	2	100%	0%	5%	0%	4	-	-	0.5	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0%	0%	0%	33	-	-	1.0	-	\$32.54	\$ -
GOVERNMENT																
SMAW	State	1	1	1	2	100%	0%	5%	0%	20	-	-	0.5	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0%	0%	0%	614	-	-	1.0	-	\$32.54	\$ -
Plasma Cutting	State	1	1	1	2	100%	0%	5%	0%	0	-	-	0.5	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0%	0%	0%	8	-	-	1.0	-	\$32.54	\$ -
GMAW	State	1	1	1	2	100%	0%	5%	0%	4	-	-	0.5	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0%	0%	0%	123	-	-	1.0	-	\$32.54	\$ -
Brazing	State	1	1	1	2	100%	0%	5%	0%	2	-	-	0.5	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0%	0%	0%	61	-	-	1.0	-	\$32.54	\$ -
Metallizing	State	1	1	1	2	100%	0%	5%	0%	1	-	-	0.5	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0%	0%	0%	12	-	-	1.0	-	\$32.54	\$ -
SECTOR 2B. MILD STEEL WELDING																
GENERAL INDUSTRY																
SMAW	Large	0	3	2	2	100%	0%	10%	0%	4,929	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0%	0%	0%	5,019	-	-	1.0	-	\$32.54	\$ -
GMAW	Large	0	3	2	2	100%	0%	10%	0%	3,615	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0%	0%	0%	3,680	-	-	1.0	-	\$32.54	\$ -
TIG	Large	0	3	2	2	100%	0%	10%	0%	1,095	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0%	0%	0%	1,115	-	-	1.0	-	\$32.54	\$ -
SAW	Large	0	3	2	2	100%	0%	10%	0%	438	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0%	0%	0%	446	-	-	1.0	-	\$32.54	\$ -
Plasma Cutting	Large	0	3	2	2	100%	0%	10%	0%	110	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0%	0%	0%	112	-	-	1.0	-	\$32.54	\$ -
	Large	0	3	2	2	100%	0%	10%	0%	410	-	-	0.5	-	\$32.54	\$ -

Table 3

VARIABLES	SIZE	JOBAL	SHIFTS	#SAMPS	SEMI-ANNUALLY	%NOTSEMI	%ABOVEAL	%INHOUSE	%LEARN	#PLANTS	RESPONDENTS	RESPONSES	ADMINTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Plasma Welding	Small	0	1	3	2	100%	0%	0%	0%	112	-	-	1.0	-	\$32.54	\$ -
Resistance Welding	Large	0	3	2	2	100%	0%	10%	0%	657	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0%	0%	0%	669	-	-	1.0	-	\$32.54	\$ -
MARITIME																
SMAW	Large	0	3	1	2	100%	0%	50%	0%	38	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	22	-	-	1.0	-	\$32.54	\$ -
GMAW	Large	0	3	1	2	100%	0%	50%	0%	55	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	31	-	-	1.0	-	\$32.54	\$ -
TIG	Large	0	3	1	2	100%	0%	50%	0%	13	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	7	-	-	1.0	-	\$32.54	\$ -
FCAW	Large	0	3	1	2	100%	0%	50%	0%	259	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	147	-	-	1.0	-	\$32.54	\$ -
Plasma Cutting	Large	0	3	1	2	100%	0%	50%	0%	8	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	5	-	-	1.0	-	\$32.54	\$ -
Plasma Welding	Large	0	3	1	2	100%	0%	50%	0%	3	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	0	-	-	1.0	-	\$32.54	\$ -
Oxy-fuel Cutting	Large	0	3	1	2	100%	0%	50%	0%	8	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	0	-	-	1.0	-	\$32.54	\$ -
Air Carbon Arc Cutting	Large	0	3	1	2	100%	0%	50%	0%	3	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	2	-	-	1.0	-	\$32.54	\$ -
Electric Torch Cutting	Large	0	3	1	2	100%	0%	50%	0%	0	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	0	-	-	1.0	-	\$32.54	\$ -
Thermal Spray Tungsten Cutting	Large	0	3	1	2	100%	0%	50%	0%	0	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	0	-	-	1.0	-	\$32.54	\$ -
SAW	Large	0	3	1	2	100%	0%	50%	0%	34	-	-	0.5	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0%	10%	0%	19	-	-	1.0	-	\$32.54	\$ -
CONSTRUCTION																
SMAW	Large	0	3	1	2	100%	0%	5%	0%	313	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0%	0%	0%	2,368	-	-	1.0	-	\$32.54	\$ -
Plasma Cutting	Large	0	3	1	2	100%	0%	5%	0%	4	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0%	0%	0%	31	-	-	1.0	-	\$32.54	\$ -
GMAW	Large	0	3	1	2	100%	0%	5%	0%	62	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0%	0%	0%	473	-	-	1.0	-	\$32.54	\$ -
Brazing	Large	0	3	1	2	100%	0%	5%	0%	31	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0%	0%	0%	237	-	-	1.0	-	\$32.54	\$ -
Metallizing	Large	0	3	1	2	100%	0%	5%	0%	6	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0%	0%	0%	47	-	-	1.0	-	\$32.54	\$ -
SECTOR 3. PAINTING																
GENERAL INDUSTRY																
Aerospace	Large	1	3	3	2	100%	28%	75%	0%	50	94	187	0.5	94	\$32.54	\$ 3,048
	Small	1	1	3	2	100%	9%	25%	0%	62	4	8	1.0	8	\$32.54	\$ 274
General Industry (Autobody)	Large	1	1	1	2	100%	5%	75%	0%	330	12	25	0.5	12	\$32.54	\$ 403
	Small	1	1	1	2	100%	5%	25%	0%	1,454	18	36	1.0	36	\$32.54	\$ 1,183
General Industry (Coil Coating)	Large	1	2	3	2	100%	8%	75%	0%	101	36	73	0.5	36	\$32.54	\$ 1,182
	Small	1	1	3	2	100%	8%	25%	0%	18	1	2	1.0	2	\$32.54	\$ 72
Maritime	Large	2	3	1	2	100%	36%	90%	0%	274	533	1,067	0.5	533	\$32.54	\$ 17,360
	Small	0	1	1	2	100%	36%	10%	0%	474	-	-	1.0	-	\$32.54	\$ -
Construction	Large	1	3	1	2	100%	22%	75%	0%	789	391	782	0.5	391	\$32.54	\$ 12,716
	Small	1	1	1	2	100%	22%	50%	0%	4,197	462	923	1.0	923	\$32.54	\$ 30,046

Table 3

VARIABLES	SIZE	JOBAL	SHIFTS	#SAMPS	SEMI-ANNUALLY	%NOTSEMI	%ABOVEAL	%INHOUSE	%LEARN	#PLANTS	RESPONDENTS	RESPONSES	ADMINTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Government	State	1	3	1	2	100%	12%	75%	0%	17	5	9	0.5	5	\$32.54	\$ 150
	Local	1	1	1	2	100%	12%	75%	0%	945	85	170	1.0	170	\$32.54	\$ 5,536
SECTOR 4. PRODUCERS OF CHROMATES																
All	Large	3	3	3	2	100%	45%	0%	0%	2	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0%	0%	0%	0	-	-	1.0	-	\$32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES																
All	Large	5	2	3	2	100%	71%	0%	0%	2	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	50%	0%	0%	1	-	-	1.0	-	\$32.54	\$ -
SECTOR 6. CCA PRODUCERS																
All	Large	1	3	3	2	100%	33%	0%	0%	3	-	-	0.5	-	\$32.54	\$ -
	Small	0	3	0	2	100%	0%	0%	0%	0	-	-	1.0	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS																
All	Large	6	3	3	2	100%	100%	80%	0%	5	201	402	0.5	201	\$32.54	\$ 6,545
	Small	0	1	3	2	100%	0%	0%	0%	0	-	-	1.0	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS																
All	Large	1	2	3	2	100%	13%	25%	0%	78	15	31	0.5	15	\$32.54	\$ 496
	Small	1	2	3	2	100%	13%	25%	0%	123	24	48	1.0	48	\$32.54	\$ 1,560
SECTOR 9. PRINTING INK PRODUCERS																
All	Large	3	1	9	2	100%	69%	10%	0%	2	4	8	0.5	4	\$32.54	\$ 134
	Small	2	1	5	2	100%	69%	10%	0%	7	5	10	0.5	5	\$32.54	\$ 166
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS																
All	Large	2	3	3	2	100%	51%	0%	0%	79	-	-	0.5	-	\$32.54	\$ -
	Small	2	1	3	2	100%	51%	0%	0%	39	-	-	1.0	-	\$32.54	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS																
All	Large	1	1	3	2	100%	100%	20%	0%	6	4	7	0.5	4	\$32.54	\$ 116
	Small	1	1	3	2	100%	100%	25%	0%	4	3	6	1.0	6	\$32.54	\$ 193
SECTOR 13. CHROMIUM METAL PRODUCERS																
All	Large	2	3	3	2	100%	100%	0%	0%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	1	2	0%	0%	0%	0%	0	-	-	1.0	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS																
Alloy and Stainless Steel	Large	3	3	3	2	100%	38%	10%	0%	39	40	79	0.5	40	\$32.54	\$ 1,293
	Small	1	1	3	2	100%	38%	10%	0%	12	1	3	1.0	3	\$32.54	\$ 92
Carbon Steel	Large	0	3	3	2	100%	0%	10%	0%	116	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0%	10%	0%	37	-	-	1.0	-	\$32.54	\$ -
SECTOR 14.B FORGING INDUSTRY																
Reshaping	Large	4	1	3	2	100%	63%	10%	0%	33	25	50	0.5	25	\$32.54	\$ 817
	Small	2	1	3	2	100%	63%	10%	0%	31	12	24	1.0	24	\$32.54	\$ 770
SECTOR 15. IRON AND STEEL FOUNDRIES																
All	Large	6	3	5	2	100%	100%	10%	0%	152	1,369	2,739	0.5	1,369	\$32.54	\$ 44,561
	Small	5	1	5	2	100%	100%	10%	0%	111	277	553	1.0	553	\$32.54	\$ 18,004
SECTOR 17. CHROMIUM DYE PRODUCERS																
All	Large	6	1	21	2	100%	38%	0%	0%	2	-	-	0.5	-	\$32.54	\$ -
	Small	6	1	7	2	100%	38%	0%	0%	1	-	-	1.0	-	\$32.54	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS																
All	Large	0	1	3	2	100%	0%	0%	0%	0	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	3	2	100%	27%	0%	0%	5	-	-	0.5	-	\$32.54	\$ -
SECTOR 19. CHEMICAL DISTRIBUTORS																
All	Large	0	1	3	2	100%	0%	0%	0%	212	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0%	0%	0%	1,600	-	-	0.5	-	\$32.54	\$ -
SECTOR 20. TEXTILE DYEING																
All	Large	0	3	3	2	100%	0%	10%	0%	307	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	2	2	100%	0%	10%	0%	623	-	-	0.5	-	\$32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS																
	Large	1	3	12	2	100%	25%	10%	0%	36	8	7	14	0.5	\$32.54	\$ 227

Table 3

VARIABLES	SIZE	JOBAL	SHIFTS	#SAMPS	SEMI-ANNUALLY	%NOTSEMI	%ABOVEAL	%INHOUSE	%LEARN	#PLANTS	RESPONDENTS	RESPONSES	ADMTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
General Industry	Small	0	1	4	2	100%	0%	10%	0%	24	-	-	1.0	-	\$32.54	\$ -
Fiber, Flat, Container Glass	Large	3	1	1	2	100%	20%	10%	0%	111	7	13	0.5	7	\$32.54	\$ 216
	Small	0	1	1	2	100%	0%	10%	0%	6	-	-	1.0	-	\$32.54	\$ -
SECTOR 22. PRINTING																
All	Large	0	3	2	2	100%	0%	10%	0%	78	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	2	2	100%	0%	10%	0%	312	-	-	0.5	-	\$32.54	\$ -
SECTOR 24. CHROMIUM CATALYST USERS																
Catalyst Users	Large	2	3	3	2	100%	9%	10%	0%	193	31	62	0.5	31	\$32.54	\$ 1,015
	Small	0	1	3	2	100%	0%	10%	0%	0	-	-	1.0	-	\$32.54	\$ -
Chromium Catalyst Service Companies	Large	0	3	3	2	100%	0%	10%	0%	25	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0%	10%	0%	5	-	-	1.0	-	\$32.54	\$ -
SECTOR 25. REFRACTORY BRICK PRODUCERS																
All	Large	0	1	15	2	100%	0%	10%	0%	5	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	0	2	100%	0%	10%	0%	0	-	-	0.5	-	\$32.54	\$ -
SECTOR 26. WOODWORKING																
General Industry	Large	0	1	2	2	100%	0%	0%	0%	143	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	2	2	100%	0%	0%	0%	76	-	-	1.0	-	\$32.54	\$ -
Maritime	Large	0	1	1	2	100%	0%	0%	0%	36	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0%	0%	0%	32	-	-	1.0	-	\$32.54	\$ -
Construction	Large	1	1	1	2	100%	22%	0%	0%	1,232	-	-	0.5	-	\$32.54	\$ -
	Small	1	1	1	2	100%	22%	0%	0%	4,932	-	-	1.0	-	\$32.54	\$ -
Government	State	1	1	1	2	100%	22%	0%	0%	17	-	-	0.5	-	\$32.54	\$ -
	Local	1	1	1	2	100%	22%	0%	0%	62	-	-	1.0	-	\$32.54	\$ -
SECTOR 27. SOLID WASTER INCINERATION																
General Industry	Large	0	3	15	2	100%	0%	10%	0%	39	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0%	10%	0%	47	-	-	1.0	-	\$32.54	\$ -
Government	State	0	3	15	2	100%	0%	10%	0%	0	-	-	0.5	-	\$32.54	\$ -
	Local	0	1	3	2	100%	0%	10%	0%	24	-	-	1.0	-	\$32.54	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS																
All	Large	0	3	3	2	100%	0%	0%	0%	18	-	-	0.5	-	\$32.54	\$ -
	Small	0	3	3	2	100%	0%	0%	0%	0	-	-	1.0	-	\$32.54	\$ -
SECTOR 31. CONSTRUCTION																
Industrial Rehabilitation	Large	0	1	1	2	100%	0%	0%	0%	54	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0%	0%	0%	247	-	-	1.0	-	\$32.54	\$ -
	State	0	1	1	2	100%	0%	0%	0%	16	-	-	0.5	-	\$32.54	\$ -
	Local	0	1	1	2	100%	0%	0%	0%	93	-	-	1.0	-	\$32.54	\$ -
Hazardous Waste-site Work	Large	0	1	1	2	100%	0%	10%	0%	43	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0%	10%	0%	180	-	-	1.0	-	\$32.54	\$ -
	State	0	1	1	2	100%	0%	10%	0%	1	-	-	0.5	-	\$32.54	\$ -
	Local	0	1	1	2	100%	0%	10%	0%	252	-	-	1.0	-	\$32.54	\$ -
Refractory Brick Restoration	Large	0	1	1	2	100%	60%	10%	0%	47	-	-	0.5	-	\$32.54	\$ -
	Small	0	1	1	2	100%	60%	10%	0%	185	-	-	1.0	-	\$32.54	\$ -
Weighted Average/Average/Total					2					78,321	3,699	7,398	0.62	4,587	\$32.54	\$ 149,261

Table 6

TABLE 6: Quarterly Exposure Monitoring (Paragraph (d)(2)(iv)); Employee Time and Cost to Conduct Quarterly Exposure Monitoring

When initial monitoring results exceed the PEL, periodic monitoring every three months allows the employer to maintain an accurate profile of employee exposures. If the employer installs or upgrades controls, quarterly monitoring will demonstrate whether the controls are working properly.

$$\text{BURDEN HOURS} = (\text{ADMINTIME} * \text{JOBPEL} * \text{SHIFTS} * \text{\#SAMPS} * 4 * \% \text{NOTQUART} * \% \text{ABOVEPEL} * (\% \text{INHOUSE} + \% \text{LEARN})) * \text{\#PLANTS}$$

$$\text{COST} = (\text{NONSUPEWAGE} * \text{BURDEN HOURS})$$

Variables:

ADMINTIME = In-house administrative time

NONSUPEWAGE = Non-supervisory wage rate, \$/hr

JOBPEL = Number of job categories exposed above the PEL

SHIFTS = Number of work shifts.

\#SAMPS = Number of samples per exposure measurement.

\%NOTQUART = Percent of plants not performing quarterly monitoring requirements.

\%ABOVEPEL = Percent of plants that have an employee in at least one job category above the PEL.

\%INHOUSE = Percent of plants already with in-house monitoring capabilities.

\%LEARN = Percent of plants that will develop in house monitoring capability.

\#PLANTS = Number of plants represented by the model output.

VARIABLES	SIZE	JOBPEL	SHIFTS	\# SAMPS	*4 TIMES PER YEAR (QUARTERLY)	\% NOTQUART	\% ABOVEPEL	\% INHOUSE	\% LEARN	\# PLANTS	RESPONDENTS	RESPONSES	ADMINTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING																
Hard Chrome	Large	0	2	3	4	0%	0%	0%	0%	837	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	1,576	-	-	0.5	-	\$ 32.54	\$ -
Job Shop Chrome Plater	Large	0	2	3	4	100%	0%	0%	0%	403	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	759	-	-	0.5	-	\$ 32.54	\$ -
Captive Shop Chrome Plater	Large	0	2	3	4	100%	0%	0%	0%	550	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	1,035	-	-	0.5	-	\$ 32.54	\$ -
Job Shop Plater	Large	0	2	3	4	100%	0%	0%	0%	403	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	759	-	-	0.5	-	\$ 32.54	\$ -
Captive Shop Plater	Large	0	2	3	4	100%	0%	0%	0%	476	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	897	-	-	0.5	-	\$ 32.54	\$ -
Operator	Large	0	2	3	4	100%	0%	0%	0%	837	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	3	4	100%	0%	0%	0%	1,576	-	-	0.5	-	\$ 32.54	\$ -
SECTOR 2A. WELDING																
GENERAL INDUSTRY																
SMAW	Large	1	3	2	4	100%	5%	10%	0%	3676	107	428	0.5	214	\$ 32.54	\$ 6,963
	Small	1	1	3	4	100%	5%	0%	0%	4,120	-	-	1.0	-	\$ 32.54	\$ -
GMAW	Large	1	3	2	4	100%	0%	10%	0%	2697	6	24	0.5	12	\$ 32.54	\$ 390
	Small	1	1	3	4	100%	0%	0%	0%	3,021	-	-	1.0	-	\$ 32.54	\$ -
TIG	Large	1	3	2	4	100%	0%	10%	0%	817	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	3	4	100%	0%	0%	0%	915	-	-	1.0	-	\$ 32.54	\$ -
SAW	Large	0	3	2	4	100%	0%	10%	0%	327	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	366	-	-	1.0	-	\$ 32.54	\$ -
Plasma Cutting	Large	1	3	2	4	100%	0%	10%	0%	81	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	3	4	100%	0%	0%	0%	91	-	-	1.0	-	\$ 32.54	\$ -
Plasma Welding	Large	1	3	2	4	100%	0%	10%	0%	81	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	3	4	100%	0%	0%	0%	91	-	-	1.0	-	\$ 32.54	\$ -
	Large	1	3	2	4	100%	0%	10%	0%	490	-	-	0.5	-	\$ 32.54	\$ -

Table 6

VARIABLES	SIZE	JOBEL	SHIFTS	# SAMPS	*4 TIMES PER YEAR (QUARTERLY)	% NOTQUART	% ABOVEPEL	% INHOUSE	% LEARN	# PLANTS	RESPONDENTS	RESPONSES	ADMINTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Resistance Welding	Small	1	1	3	4	100%	0%	0%	0%	550	-	-	1.0	-	\$ 32.54	\$ -
MARITIME																
SMAW	Large	1	3	1	4	100%	0%	50%	0%	18	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	2	1	4	100%	0%	10%	0%	10	-	-	1.0	-	\$ 32.54	\$ -
GMAW	Large	1	3	1	4	100%	0%	50%	0%	25	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	2	1	4	100%	0%	10%	0%	14	-	-	1.0	-	\$ 32.54	\$ -
TIG	Large	1	3	1	4	100%	0%	50%	0%	6	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	2	1	4	100%	0%	10%	0%	3	-	-	1.0	-	\$ 32.54	\$ -
FCAW	Large	1	3	1	4	100%	0%	50%	0%	121	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	2	1	4	100%	0%	10%	0%	68	-	-	1.0	-	\$ 32.54	\$ -
Plasma Cutting	Large	1	3	1	4	100%	0%	50%	0%	4	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	2	1	4	100%	0%	10%	0%	2	-	-	1.0	-	\$ 32.54	\$ -
Plasma Welding	Large	1	3	1	4	100%	0%	50%	0%	2	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	2	1	4	100%	0%	10%	0%	1	-	-	1.0	-	\$ 32.54	\$ -
Oxy-fuel Cutting	Large	1	3	1	4	100%	0%	50%	0%	4	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	2	1	4	100%	0%	10%	0%	2	-	-	1.0	-	\$ 32.54	\$ -
Air Carbon Arc Cutting	Large	1	3	1	4	100%	0%	50%	0%	2	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	2	1	4	100%	0%	10%	0%	1	-	-	1.0	-	\$ 32.54	\$ -
Electric Torch Cutting	Large	0	3	1	4	100%	0%	50%	0%	0	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	0	-	-	1.0	-	\$ 32.54	\$ -
Thermal Spray Tungsten Cutting	Large	0	3	1	4	100%	0%	50%	0%	0	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	0	-	-	1.0	-	\$ 32.54	\$ -
SAW	Large	0	3	1	4	100%	0%	50%	0%	16	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	2	1	4	100%	0%	10%	0%	9	-	-	1.0	-	\$ 32.54	\$ -
CONSTRUCTION																
SMAW	Large	1	3	1	4	100%	0%	5%	0%	209	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	1	4	100%	0%	0%	0%	1,673	-	-	1.0	-	\$ 32.54	\$ -
Plasma Cutting	Large	0	3	1	4	100%	0%	5%	0%	3	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	1	4	100%	0%	0%	0%	22	-	-	1.0	-	\$ 32.54	\$ -
GMAW	Large	0	3	1	4	100%	0%	5%	0%	42	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	1	4	100%	0%	0%	0%	335	-	-	1.0	-	\$ 32.54	\$ -
Brazing	State	1	3	1	4	100%	0%	5%	0%	21	-	-	0.5	-	\$ 32.54	\$ -
	Local	1	1	1	4	100%	0%	0%	0%	168	-	-	1.0	-	\$ 32.54	\$ -
Metallizing	State	1	3	1	4	100%	0%	5%	0%	4	-	-	0.5	-	\$ 32.54	\$ -
	Local	1	1	1	4	100%	0%	0%	0%	33	-	-	1.0	-	\$ 32.54	\$ -
GOVERNMENT																
SMAW	State	1	1	1	4	100%	0%	5%	0%	20	-	-	0.5	-	\$ 32.54	\$ -
	Local	1	1	1	4	100%	0%	0%	0%	614	-	-	1.0	-	\$ 32.54	\$ -
	State	1	1	1	4	100%	0%	5%	0%	0	-	-	0.5	-	\$ 32.54	\$ -

Table 6

VARIABLES	SIZE	JOBPEL	SHIFTS	# SAMPS	*4 TIMES PER YEAR (QUARTERLY)	% NOTQUART	% ABOVEPEL	% INHOUSE	% LEARN	# PLANTS	RESPONDENTS	RESPONSES	ADMINTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Plasma Cutting	Local	1	1	1	4	100%	0%	0%	0%	8	-	-	1.0	-	\$ 32.54	\$ -
GMAW	State	1	1	1	4	100%	0%	5%	0%	4	-	-	0.5	-	\$ 32.54	\$ -
	Local	1	1	1	4	100%	0%	0%	0%	123	-	-	1.0	-	\$ 32.54	\$ -
Brazing	State	1	1	1	4	100%	0%	5%	0%	2	-	-	0.5	-	\$ 32.54	\$ -
	Local	1	1	1	4	100%	0%	0%	0%	61	-	-	1.0	-	\$ 32.54	\$ -
Metallizing	State	1	1	1	4	100%	0%	5%	0%	1	-	-	0.5	-	\$ 32.54	\$ -
	Local	1	1	1	4	100%	0%	0%	0%	12	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 2B. MILD STEEL WELDING																
GENERAL INDUSTRY																
SMAW	Large	1	3	2	4	100%	0%	10%	0%	4,929	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	3	4	100%	0%	0%	0%	5,019	-	-	1.0	-	\$ 32.54	\$ -
GMAW	Large	1	3	2	4	100%	0%	10%	0%	3,615	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	3	4	100%	0%	0%	0%	3,680	-	-	1.0	-	\$ 32.54	\$ -
TIG	Large	1	3	2	4	100%	0%	10%	0%	1,095	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	3	4	100%	0%	0%	0%	1,115	-	-	1.0	-	\$ 32.54	\$ -
SAW	Large	0	3	2	4	100%	0%	10%	0%	438	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	446	-	-	1.0	-	\$ 32.54	\$ -
Plasma Cutting	Large	1	3	2	4	100%	0%	10%	0%	110	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	3	4	100%	0%	0%	0%	112	-	-	1.0	-	\$ 32.54	\$ -
Plasma Welding	Large	1	3	2	4	100%	0%	10%	0%	110	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	3	4	100%	0%	0%	0%	112	-	-	1.0	-	\$ 32.54	\$ -
Resistance Welding	Large	1	3	2	4	100%	0%	10%	0%	657	-	-	0.5	-	\$ 32.54	\$ -
	Small	1	1	3	4	100%	0%	0%	0%	669	-	-	1.0	-	\$ 32.54	\$ -
MARITIME																
SMAW	Large	0	3	1	4	100%	0%	50%	0%	38	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	22	-	-	1.0	-	\$ 32.54	\$ -
GMAW	Large	0	3	1	4	100%	0%	50%	0%	55	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	31	-	-	1.0	-	\$ 32.54	\$ -
TIG	Large	0	3	1	4	100%	0%	50%	0%	13	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	7	-	-	1.0	-	\$ 32.54	\$ -
FCAW	Large	0	3	1	4	100%	0%	50%	0%	259	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	147	-	-	1.0	-	\$ 32.54	\$ -
Plasma Cutting	Large	0	3	1	4	100%	0%	50%	0%	8	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	5	-	-	1.0	-	\$ 32.54	\$ -
Plasma Welding	Large	0	3	1	4	100%	0%	50%	0%	3	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	0	-	-	1.0	-	\$ 32.54	\$ -
Oxy-fuel Cutting	Large	0	3	1	4	100%	0%	50%	0%	8	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	0	-	-	1.0	-	\$ 32.54	\$ -
Air Carbon Arc Cutting	Large	0	3	1	4	100%	0%	50%	0%	3	-	-	0.5	-	\$ 32.54	\$ -

Table 6

VARIABLES	SIZE	JOBPEL	SHIFTS	# SAMPS	*4 TIMES PER YEAR (QUARTERLY)	% NOTQUART	% ABOVEPEL	% INHOUSE	% LEARN	# PLANTS	RESPONDENTS	RESPONSES	ADMINTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
	Small	0	2	1	4	100%	0%	10%	0%	2	-	-	1.0	-	\$ 32.54	\$ -
Electric Torch Cutting	Large	0	3	1	4	100%	0%	50%	0%	0	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	0	-	-	1.0	-	\$ 32.54	\$ -
Thermal Spray Tungsten Cutting	Large	0	3	1	4	100%	0%	50%	0%	0	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	0	-	-	1.0	-	\$ 32.54	\$ -
SAW	Large	0	3	1	4	100%	0%	50%	0%	34	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	1	4	100%	0%	10%	0%	19	-	-	1.0	-	\$ 32.54	\$ -
CONSTRUCTION																
SMAW	Large	0	3	1	4	100%	0%	5%	0%	313	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	1	4	100%	0%	0%	0%	2,368	-	-	1.0	-	\$ 32.54	\$ -
Plasma Cutting	Large	0	3	1	4	100%	0%	5%	0%	4	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	1	4	100%	0%	0%	0%	31	-	-	1.0	-	\$ 32.54	\$ -
GMAW	Large	0	3	1	4	100%	0%	5%	0%	62	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	1	4	100%	0%	0%	0%	473	-	-	1.0	-	\$ 32.54	\$ -
Brazing	State	0	3	1	4	100%	0%	5%	0%	31	-	-	0.5	-	\$ 32.54	\$ -
	Local	0	1	1	4	100%	0%	0%	0%	237	-	-	1.0	-	\$ 32.54	\$ -
Metallizing	State	0	3	1	4	100%	0%	5%	0%	6	-	-	0.5	-	\$ 32.54	\$ -
	Local	0	1	1	4	100%	0%	0%	0%	47	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 3. PAINTING																
Aerospace	Large	1	3	3	4	100%	28%	75%	0%	50	94	375	0.5	187	\$ 32.54	\$ 6,095
	Small	1	1	3	4	100%	9%	25%	0%	62	4	17	1.0	17	\$ 32.54	\$ 548
Autobody	Large	0	1	1	4	100%	5%	75%	0%	330	-	-	0.5	-	\$ 32.54	\$ -
	Small	2	1	1	4	100%	5%	25%	0%	1,454	36	145	1.0	145	\$ 32.54	\$ 4,733
Coil Coating	Large	0	2	3	4	100%	8%	75%	0%	101	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	8%	25%	0%	18	-	-	1.0	-	\$ 32.54	\$ -
Maritime	Large	1	3	1	4	100%	36%	90%	0%	274	267	1,067	0.5	533	\$ 32.54	\$ 17,360
	Small	1	1	1	4	100%	36%	10%	0%	474	17	68	1.0	68	\$ 32.54	\$ 2,223
Construction	Large	1	3	1	4	100%	22%	75%	0%	789	391	1,563	0.5	782	\$ 32.54	\$ 25,433
	Small	1	1	1	4	100%	22%	50%	0%	4,197	462	1,847	1.0	1,847	\$ 32.54	\$ 60,093
Government	Large	1	3	1	4	100%	12%	75%	0%	17	5	18	0.5	9	\$ 32.54	\$ 300
	Small	1	1	1	4	100%	12%	75%	0%	945	85	340	1.0	340	\$ 32.54	\$ 11,071
SECTOR 4. PRODUCERS OF CHROMATES																
All	Large	0	3	3	4	100%	0%	0%	0%	2	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	0	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES																
All	Large	1	2	3	4	100%	77%	0%	0%	2	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	1	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 6. CCA PRODUCERS																
All	Large	0	3	3	4	100%	0%	0%	0%	3	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	3	0	4	100%	0%	0%	0%	0	-	-	1.0	-	\$ 32.54	\$ -

Table 6

VARIABLES	SIZE	JOBPEL	SHIFTS	# SAMPS	*4 TIMES PER YEAR (QUARTERLY)	% NOTQUART	% ABOVEPEL	% INHOUSE	% LEARN	# PLANTS	RESPONDENTS	RESPONSES	ADMINTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 7. CHROMIUM CATALYST PRODUCERS																
All	Large	0	3	3	4	100%	0%	80%	0%	5	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	0	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS																
All	Large	0	2	3	4	100%	0%	25%	75%	78	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	2	3	4	100%	0%	25%	75%	123	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 9. PRINTING INK PRODUCERS																
All	Large	0	1	9	4	100%	0%	10%	0%	2	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	5	4	100%	0%	10%	0%	7	-	-	0.5	-	\$ 32.54	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS																
All	Large	3	3	3	4	100%	36%	0%	0%	79	-	-	0.5	-	\$ 32.54	\$ -
	Small	5	1	3	4	100%	36%	0%	0%	39	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS																
All	Large	0	1	3	4	100%	0%	20%	0%	6	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	25%	0%	4	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 13. CHROMIUM METAL PRODUCERS																
All	Large	0	3	3	4	100%	0%	0%	0%	1	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	1	4	0%	0%	0%	0%	0	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS																
Alloy and Stainless Steel	Large	0	3	3	4	100%	0%	10%	0%	39	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	10%	0%	12	-	-	1.0	-	\$ 32.54	\$ -
Carbon Steel	Large	0	3	3	4	100%	0%	10%	0%	116	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	1	4	100%	0%	10%	0%	37	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 14.B FORGING INDUSTRY																
Reshaping	Large	0	1	3	4	100%	63%	10%	0%	33	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	63%	10%	0%	31	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 15. IRON AND STEEL FOUNDRIES																
All	Large	0	3	5	4	100%	0%	10%	0%	152	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	5	4	100%	0%	10%	0%	111	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 17. CHROMIUM DYE PRODUCERS																
All	Large	7	1	21	4	100%	62%	0%	0%	2	-	-	0.5	-	\$ 32.54	\$ -
	Small	5	1	7	4	100%	62%	0%	0%	1	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS																
All	Large	0	1	3	4	100%	0%	0%	0%	0	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	5	-	-	0.5	-	\$ 32.54	\$ -
SECTOR 19. CHEMICAL DISTRIBUTORS																
All	Large	0	1	3	4	100%	0%	0%	0%	212	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	0%	0%	1,600	-	-	0.5	-	\$ 32.54	\$ -
SECTOR 20. TEXTILE DYEING																
All	Large	0	3	3	4	100%	0%	10%	0%	307	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	2	4	100%	0%	10%	0%	623	-	-	0.5	-	\$ 32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS																
	Large	0	3	12	4	100%	0%	10%	0%	8	-	-	0.5	-	\$ 32.54	\$ -

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VARIABLES	SIZE	JOBPEL	SHIFTS	# SAMPs	*4 TIMES PER YEAR (QUARTERLY)	% NOTQUART	% ABOVEPEL	% INHOUSE	% LEARN	# PLANTS	RESPONDENTS	RESPONSES	ADMINTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
All	Small	0	1	4	4	100%	0%	10%	0%	24	-	-	1.0	-	\$ 32.54	\$ -
Fiber, Flat, Container Glass	Large	1	1	1	4	100%	20%	10%	0%	111	2	9	0.5	4	\$ 32.54	\$ 144
	Small	1	1	1	4	100%	0%	10%	0%	6	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 22. PRINTING																
All	Large	0	3	2	4	100%	0%	10%	0%	78	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	2	4	100%	0%	10%	0%	312	-	-	0.5	-	\$ 32.54	\$ -
SECTOR 24. CHROMIUM CATALYST USERS																
Catalyst Users	Large	0	3	3	4	100%	0%	10%	0%	193	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	10%	0%	0	-	-	1.0	-	\$ 32.54	\$ -
Chromium Catalyst Service Companies	Large	0	3	3	4	100%	0%	10%	0%	25	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	10%	0%	5	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 25. REFRACTORY BRICK PRODUCERS																
All	Large	0	1	15	4	100%	0%	10%	0%	5	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	0	4	100%	0%	10%	0%	0	-	-	0.5	-	\$ 32.54	\$ -
SECTOR 26. WOODWORKING																
General Industry	Large	0	1	2	4	100%	0%	0%	0%	143	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	2	4	100%	0%	0%	0%	76	-	-	1.0	-	\$ 32.54	\$ -
Maritime	Large	0	1	1	4	100%	0%	0%	0%	36	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	1	4	100%	0%	0%	0%	32	-	-	1.0	-	\$ 32.54	\$ -
Construction	Large	0	1	1	4	100%	22%	0%	0%	1,232	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	1	4	100%	22%	0%	0%	4,932	-	-	1.0	-	\$ 32.54	\$ -
Government	STATE	0	1	1	4	100%	22%	0%	0%	17	-	-	0.5	-	\$ 32.54	\$ -
	LOCAL	0	1	1	4	100%	22%	0%	0%	62	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 27. SOLID WASTER INCINERATION																
General Industry	Large	0	3	15	4	100%	0%	10%	0%	39	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	3	4	100%	0%	10%	0%	47	-	-	1.0	-	\$ 32.54	\$ -
Government	STATE	0	3	15	4	100%	0%	10%	0%	0	-	-	0.5	-	\$ 32.54	\$ -
	LOCAL	0	1	3	4	100%	0%	10%	0%	24	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS																
All	Large	0	3	3	4	100%	0%	0%	0%	18	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	3	3	4	100%	0%	0%	0%	0	-	-	1.0	-	\$ 32.54	\$ -
SECTOR 31. CONSTRUCTION																
Industrial Rehabilitation	Large	0	1	1	4	100%	0%	0%	0%	54	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	1	4	100%	0%	0%	0%	247	-	-	1.0	-	\$ 32.54	\$ -
	State	0	1	1	4	100%	0%	0%	0%	16	-	-	0.5	-	\$ 32.54	\$ -
	Local	0	1	1	4	100%	0%	0%	0%	93	-	-	1.0	-	\$ 32.54	\$ -
Hazardous Waste-site Work	Large	0	1	1	4	100%	0%	10%	0%	43	-	-	0.5	-	\$ 32.54	\$ -
	Small	0	1	1	4	100%	0%	10%	0%	180	-	-	1.0	-	\$ 32.54	\$ -
	State	0	1	1	4	100%	0%	10%	0%	1	-	-	0.5	-	\$ 32.54	\$ -
	Local	0	1	1	4	100%	0%	10%	0%	252	-	-	1.0	-	\$ 32.54	\$ -
	Large	0	1	1	4	100%	60%	10%	0%	47	-	-	0.5	-	\$ 32.54	\$ -

Table 6

VARIABLES	SIZE	JOBPEL	SHIFTS	# SAMPS	*4 TIMES PER YEAR (QUARTERLY)	% NOTQUART	% ABOVEPEL	% INHOUSE	% LEARN	# PLANTS	RESPONDENTS	RESPONSES	ADMINTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Refractory Brick Restoration	Small	0	1	1	4	100%	60%	10%	0%	185	-	-	1.0	-	\$ 32.54	\$ -
Weighted Average/Average/Total					4					78,321	1,475	5,900	0.70	4,130	\$ 32.54	\$ 134,390

Table 7

TABLE 7: Quarterly Exposure Monitoring (Paragraph (d)(2)(iv)); Contract Cost for an IH Technician to Perform Quarterly Exposure Monitoring

This table calculates the contract cost for the employer to have an outside industrial hygiene technician perform quarterly exposure monitoring.

$$\text{COST} = (\text{QUARTCONTTIME} * \text{CONTCOST} * 4 * \% \text{NOTQUART} * \% \text{ABOVEPEL} * \% \text{CONT}) * \# \text{PLANTS}$$

Variables:

QUARTCONTTIME = Time, in hours, for an outside contractor (industrial hygiene technician) to conduct quarterly-annual monitoring

CONTCOST = Cost per hour for an outside industrial hygiene contractor

%NOTQUART = Percent of plants not performing quarterly monitoring requirements

%ABOVEPEL = Percent of plants that have an employee in at least one job category above the PEL

%CONT = Percent of plants that will continue to use an outside contractor for monitoring

#PLANTS = Number of plants represented by the model output

		QUARTCONTTIME	CONTCOST	4 times per year (quarterly)	%NOTQUART	%ABOVEPEL	%CONT	PLANTS	Item 13 COSTS
SECTOR 1. ELECTROPLATING									
Hard Chrome	Large	0	\$52.52	4	100%	0.00%	100%	837	\$0
	Small	0	\$52.52	4	100%	0.00%	100%	1,576	\$0
Job Shop Chrome Plater	Large	0	\$52.52	4	100%	0.00%	100%	403	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	759	\$0
Captive Shop Chrome	Large	0	\$52.52	4	100%	0.00%	100%	550	\$0
	Small	0	\$52.52	4	100%	0.00%	100%	1,035	\$0
Job Shop Plater	Large	0	\$52.52	4	100%	0.00%	100%	403	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	759	\$0
Captive Shop Plater	Large	0	\$52.52	4	100%	0.00%	100%	476	\$0
	Small	0	\$52.52	4	100%	0.00%	100%	897	\$0
Operator	Large	0	\$52.52	4	100%	0.00%	100%	837	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	1,576	\$0
SECTOR 2A. WELDING									
GENERAL INDUSTRY									
SMAW	Large	12	\$52.52	4	100%	4.85%	90%	3,676	\$404,568
	Small	12	\$52.52	4	100%	4.84%	100%	4,120	\$502,659
	Large	12	\$52.52	4	100%	0.37%	90%	2,697	\$22,640

Table 7

	Size	QUART	CONTCOST	4 times per year (quarterly)	%NOTQUART	*%ABOVEPEL	%CONT	PLANTS	Item 13 COSTS
GMAW	Small	12	\$52.52	4	100%	0.38%	100%	3,021	\$28,944
TIG	Large	12	\$52.52	4	100%	0.00%	90%	817	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	915	\$0
SAW	Large	0	\$52.52	4	100%	0.00%	90%	327	\$0
	Small	0	\$52.52	4	100%	0.00%	100%	366	\$0
Plasma Cutting	Large	12	\$52.52	4	100%	0.00%	90%	81	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	91	\$0
Plasma Welding	Large	12	\$52.52	4	100%	0.00%	90%	81	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	91	\$0
Resistance Welding	Large	12	\$52.52	4	100%	0.00%	90%	490	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	550	\$0
MARITIME									
SMAW	Large	12	\$52.52	4	100%	0.00%	50%	18	\$0
	Small	12	\$52.52	4	100%	0.00%	90%	10	\$0
GMAW	Large	12	\$52.52	4	100%	0.00%	50%	25	\$0
	Small	12	\$52.52	4	100%	0.00%	90%	14	\$0
TIG	Large	12	\$52.52	4	100%	0.00%	50%	6	\$0
	Small	12	\$52.52	4	100%	0.00%	90%	3	\$0
FCAW	Large	12	\$52.52	4	100%	0.00%	50%	121	\$0
	Small	12	\$52.52	4	100%	0.00%	90%	68	\$0
Plasma Cutting	Large	12	\$52.52	4	100%	0.00%	50%	4	\$0
	Small	12	\$52.52	4	100%	0.00%	90%	2	\$0
Plasma Welding	Large	12	\$52.52	4	100%	0.00%	50%	2	\$0
	Small	12	\$52.52	4	100%	0.00%	90%	1	\$0
Oxy-fuel Cutting	Large	12	\$52.52	4	100%	0.00%	50%	4	\$0
	Small	12	\$52.52	4	100%	0.00%	90%	2	\$0
Air Carbon Arc Cutting	Large	12	\$52.52	4	100%	0.00%	50%	2	\$0
	Small	12	\$52.52	4	100%	0.00%	90%	1	\$0

Table 7

	Size	QUART	CONTCOST	4 times per year (quarterly)	%NOTQUART	*%ABOVEPEL	%CONT	PLANTS	Item 13 COSTS
Electric Torch Cutting	Large	0	\$52.52	4	100%	0.00%	50%	0	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	0	\$0
Thermal Spray Tungsten Cutting	Large	0	\$52.52	4	100%	0.00%	50%	0	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	0	\$0
SAW	Large	0	\$52.52	4	100%	0.00%	50%	16	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	9	\$0
CONSTRUCTION									
SMAW	Large	12	\$52.52	4	100%	0.00%	95%	209	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	1,673	\$0
Plasma Cutting	Large	0	\$52.52	4	100%	0.00%	95%	3	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	22	\$0
GMAW	Large	0	\$52.52	4	100%	0.00%	95%	42	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	335	\$0
Brazing	State	12	\$52.52	4	100%	0.00%	95%	21	\$0
	Local	12	\$52.52	4	100%	0.00%	100%	168	\$0
Metallizing	State	12	\$52.52	4	100%	0.00%	95%	4	\$0
	Local	12	\$52.52	4	100%	0.00%	100%	33	\$0
GOVERNMENT									
SMAW	State	12	\$52.52	4	100%	0.00%	95%	20	\$0
	Local	12	\$52.52	4	100%	0.00%	100%	614	\$0
Plasma Cutting	State	12	\$52.52	4	100%	0.00%	95%	0	\$0
	Local	12	\$52.52	4	100%	0.00%	100%	8	\$0
GMAW	State	12	\$52.52	4	100%	0.00%	95%	4	\$0
	Local	12	\$52.52	4	100%	0.00%	100%	123	\$0
Brazing	State	12	\$52.52	4	100%	0.00%	95%	2	\$0
	Local	12	\$52.52	4	100%	0.00%	100%	61	\$0
Metallizing	State	12	\$52.52	4	100%	0.00%	95%	1	\$0
	Local	12	\$52.52	4	100%	0.00%	100%	12	\$0
SECTOR 2B. MILD STEEL WELDI					MARITIME				

Table 7

	Size	QUART	TIME	CONTCOST	4 times per year (quarterly)	%NOTQUART	*%ABOVEPEL	%CONT	PLANTS	Item 13 COSTS
SMAW	Large	12		\$52.52	4	100%	0.00%	90%	4,929	\$0
	Small	12		\$52.52	4	100%	0.00%	100%	5,019	\$0
GMAW	Large	12		\$52.52	4	100%	0.00%	90%	3,615	\$0
	Small	12		\$52.52	4	100%	0.00%	100%	3,680	\$0
TIG	Large	12		\$52.52	4	100%	0.00%	90%	1,095	\$0
	Small	12		\$52.52	4	100%	0.00%	100%	1,115	\$0
SAW	Large	0		\$52.52	4	100%	0.00%	90%	438	\$0
	Small	0		\$52.52	4	100%	0.00%	100%	446	\$0
Plasma Cutting	Large	0		\$52.52	4	100%	0.00%	90%	110	\$0
	Small	0		\$52.52	4	100%	0.00%	100%	112	\$0
Plasma Welding	Large	0		\$52.52	4	100%	0.00%	90%	110	\$0
	Small	0		\$52.52	4	100%	0.00%	100%	112	\$0
Resistance Welding	Large	0		\$52.52	4	100%	0.00%	90%	657	\$0
	Small	0		\$52.52	4	100%	0.00%	100%	669	\$0
MARITIME										
SMAW	Large	12		\$52.52	4	100%	0.00%	50%	38	\$0
	Small	12		\$52.52	4	100%	0.00%	90%	22	\$0
GMAW	Large	12		\$52.52	4	100%	0.00%	50%	55	\$0
	Small	12		\$52.52	4	100%	0.00%	90%	31	\$0
TIG	Large	0		\$52.52	4	100%	0.00%	50%	13	\$0
	Small	0		\$52.52	4	100%	0.00%	90%	7	\$0
FCAW	Large	0		\$52.52	4	100%	0.00%	50%	259	\$0
	Small	0		\$52.52	4	100%	0.00%	90%	147	\$0
Plasma Cutting	Large	0		\$52.52	4	100%	0.00%	50%	8	\$0
	Small	0		\$52.52	4	100%	0.00%	90%	5	\$0
Plasma Welding	Large	0		\$52.52	4	100%	0.00%	50%	3	\$0
	Small	0		\$52.52	4	100%	0.00%	90%	0	\$0
Oxy-fuel Cutting	Large	0		\$52.52	4	100%	0.00%	50%	8	\$0

Table 7

	Size	QUART	CONTCOST	4 times per year (quarterly)	%NOTQUART	*%ABOVEPEL	%CONT	PLANTS	Item 13 COSTS
	Small	0	\$52.52	4	100%	0.00%	90%	0	\$0
Air Carbon Arc Cutting	Large	0	\$52.52	4	100%	0.00%	50%	3	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	2	\$0
Electric Torch Cutting	Large	0	\$52.52	4	100%	0.00%	50%	0	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	0	\$0
Thermal Spray Tungsten Cutting	Large	0	\$52.52	4	100%	0.00%	50%	0	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	0	\$0
SAW	Large	0	\$52.52	4	100%	0.00%	50%	34	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	19	\$0
CONSTRUCTION									
SMAW	Large	0	\$52.52	4	100%	0.00%	95%	313	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	2,368	\$0
Plasma Cutting	Large	0	\$52.52	4	100%	0.00%	95%	4	\$0
	Small	0	\$52.52	4	100%	0.00%	100%	31	\$0
GMAW	Large	0	\$52.52	4	100%	0.00%	95%	62	\$0
	Small	0	\$52.52	4	100%	0.00%	100%	473	\$0
Brazing	State	0	\$52.52	4	100%	0.00%	95%	31	\$0
	Local	0	\$52.52	4	100%	0.00%	100%	237	\$0
Metallizing	State	0	\$52.52	4	100%	0.00%	95%	6	\$0
	Local	12	\$52.52	4	100%	0.00%	100%	47	\$0
SECTOR 3. PAINTING									
GENERAL INDUSTRY									
AEROSPACE	Large	12	\$52.52	4	100%	28.00%	25%	50	\$8,744
	Small	12	\$52.52	4	100%	9.00%	75%	62	\$10,618
AUTOBODY	Large	12	\$52.52	4	100%	5.00%	25%	330	\$10,410
	Small	12	\$52.52	4	100%	5.00%	75%	1,454	\$137,500
MARITIME	Large	12	\$52.52	4	100%	36.00%	10%	101	\$9,161
	Small	12	\$52.52	4	100%	36.00%	90%	18	\$14,990
COIL COATING	Large	12	\$52.52	4	100%	8.00%	25%	274	\$13,836
	Small	12	\$52.52	4	100%	8.00%	75%	474	\$71,768

Table 7

	Size	QUART	TIME	CONTCOST	4 times per year (qua	%NOTQUART	***ABOVEPEL	%CONT	PLANTS	Item 13 COSTS
CONSTRUCTION	Large	12		\$52.52	4	100%	22.00%	25%	789	\$109,464
	Small	12		\$52.52	4	100%	22.00%	50%	4,197	\$1,163,881
GOVERNMENT	Large	12		\$52.52	4	100%	12.00%	25%	17	\$1,291
	Small	12		\$52.52	4	100%	12.00%	25%	945	\$71,477
SECTOR 4. PRODUCERS OF CHROMATES										
ALL	Large	0		\$52.52	4	100%	0.00%	100%	2	\$0
	Small	0		\$52.52	4	100%	0.00%	0%	0	\$0
SECTOR 5. CHROMATE PIGMENT PROCEDURES										
ALL	Large	12		\$52.52	4	100%	77.00%	100%	2	\$3,235
	Small	12		\$52.52	4	100%	0.00%	100%	1	\$0
SECTOR 6. CCA PRODUCERS										
ALL	Large	12		\$52.52	4	100%	0.00%	100%	3	\$0
	Small	12		\$52.52	4	100%	0.00%	0%	0	\$0
SECTOR 7. CHROMIUM CATALYST PRODUCERS										
ALL	Large	12		\$52.52	4	100%	0.00%	20%	5	\$0
	Small	12		\$52.52	4	100%	0.00%	0%	0	\$0
SECTOR 8. PAINT AND COATING PRODUCERS										
ALL	Large	12		\$52.52	4	100%	0.00%	75%	78	\$0
	Small	12		\$52.52	4	100%	0.00%	75%	123	\$0
SECTOR 9. PRINTING INK PRODUCERS										
ALL	Large	0		\$52.52	4	100%	0.00%	90%	2	\$0
	Small	0		\$52.52	4	100%	0.00%	90%	7	\$0
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS										
ALL	Large	12		\$52.52	4	100%	36.00%	100%	79	\$71,866
	Small	12		\$52.52	4	100%	36.00%	100%	39	\$35,152
SECTOR 11. PLATING MIXTURE PRODUCERS										
ALL	Large	12		\$52.52	4	100%	0.00%	80%	6	\$0
	Small	12		\$52.52	4	100%	0.00%	75%	4	\$0
SECTOR 13. CHROMIUM METAL PRODUCERS										
ALL	Large	12		\$52.52	4	100%	0.00%	100%	1	\$0
	Small	12		\$52.52	4	0%	0.00%	0%	0	\$0

Table 7

	Size	QUART	CONTCOST	4 times per year (quar	%NOTQUART	*%ABOVEPEL	%CONT	PLANTS	Item 13 COSTS
SECTOR 14. IRON AND STEEL MILLS									
ALLOY AND STAINLESS STEEL	Large	0	\$52.52	4	100%	0.00%	90%	39	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	12	\$0
CARBON STEEL	Large	0	\$52.52	4	100%	0.00%	90%	116	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	37	\$0
SECTOR 14.B FORGING INDUSTRY									
RESHAPING	Large	0	\$52.52	4	100%	63.00%	90%	33	\$0
	Small	0	\$52.52	4	100%	63.00%	90%	31	\$0
SECTOR 15. IRON AND STEEL FOUNDRIES									
ALL	Large	0	\$52.52	4	100%	0.00%	90%	152	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	111	\$0
SECTOR 17. CHROMIUM DYE PRODUCERS									
ALL	Large	12	\$52.52	4	100%	62.00%	100%	2	\$3,907
	Small	12	\$52.52	4	100%	62.00%	100%	1	\$1,302
SECTOR 18. CHROMIUM SULFATE PRODUCERS									
ALL	Large	12	\$52.52	4	100%	0.00%	0%	0	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	5	\$0
SECTOR 19. CHEMICAL DISTRIBUTORS									
ALL	Large	12	\$52.52	4	100%	0.00%	100%	212	\$0
	Small	12	\$52.52	4	100%	0.00%	100%	1,600	\$0
SECTOR 20. TEXTILE DYEING									
ALL	Large	0	\$52.52	4	100%	0.00%	90%	307	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	623	\$0
SECTOR 21. COLORED GLASS PRODUCERS									
General Industry	Large	0	\$52.52	4	100%	0.00%	90%	8	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	24	\$0
Fiber, Flat and Container Glass	Large	12	\$52.52	4	100%	20.00%	90%	111	\$50,310
	Small	12	\$52.52	4	100%	0.00%	90%	6	\$0
SECTOR 22. PRINTING									
ALL	Large	0	\$52.52	4	100%	0.00%	90%	78	\$0
	Small	0	\$52.52	4	100%	0.00%	90%	312	\$0

Table 7

	Size	QUART	TIME	CONTCOST	4 times per year (quarterly)	%NOTQUART	*%ABOVEPEL	%CONT	PLANTS	Item 13 COSTS
SECTOR 24. CHROMIUM CATALYST USERS										
CATALYST USER	Large	12	\$52.52	4	100%	0.00%	90%	193	\$0	
	Small	12	\$52.52	4	100%	0.00%	90%	0	\$0	
CATALYST SERVICE COMPANIES	Large	12	\$52.52	4	100%	0.00%	90%	25	\$0	
	Small	12	\$52.52	4	100%	0.00%	90%	5	\$0	
SECTOR 25. REFRACTORY BRICK PRODUCERS										
ALL	Large	0	\$52.52	4	100%	0.00%	90%	5	\$0	
	Small	0	\$52.52	4	100%	0.00%	90%	0	\$0	
SECTOR 26. WOODWORKING										
ALL	Large	0	\$52.52	4	100%	0.00%	100%	143	\$0	
	Small	0	\$52.52	4	100%	0.00%	100%	76	\$0	
MARITIME	Large	0	\$52.52	4	100%	0.00%	100%	36	\$0	
	Small	0	\$52.52	4	100%	0.00%	100%	32	\$0	
CONSTRUCTION	Large	0	\$52.52	4	100%	22.00%	100%	1,232	\$0	
	Small	0	\$52.52	4	100%	22.00%	100%	4,932	\$0	
GOVERNMENT	STATE	0	\$52.52	4	100%	22.00%	100%	17	\$0	
	LOCAL	0	\$52.52	4	100%	22.00%	100%	62	\$0	
SECTOR 27. SOLID WASTE INCINERATION										
GENERAL INDUSTRY	Large	0	\$52.52	4	100%	0.00%	90%	39	\$0	
	Small	0	\$52.52	4	100%	0.00%	90%	47	\$0	
GOVERNMENT	STATE	0	\$52.52	4	100%	0.00%	25%	0	\$0	
	LOCAL	0	\$52.52	4	100%	0.00%	90%	24	\$0	
SECTOR 30. SUPERALLOY PRODUCERS AND USERS										
ALL	Large	0	\$52.52	4	100%	0.00%	100%	18	\$0	
	Small	0	\$52.52	4	100%	0.00%	0%	0	\$0	
SECTOR 31. CONSTRUCTION										
Industrial Rehabilitation	Large	0	\$52.52	4	100%	0.00%	100%	54	\$0	
	Small	0	\$52.52	4	100%	0.00%	100%	247	\$0	
	State	0	\$52.52	4	100%	0.00%	100%	16	\$0	
	Local	0	\$52.52	4	100%	0.00%	100%	93	\$0	
	Large	0	\$52.52	4	100%	0.00%	90%	43	\$0	

Table 7

	Size	QUART	CONTCOST	4 times per year (quar	%NOTQUART	*%ABOVEPEL	%CONT	PLANTS	Item 13 COSTS
Hazardous Waste-site Work	Small	0	\$52.52	4	100%	0.00%	90%	180	\$0
	State	0	\$52.52	4	100%	0.00%	90%	1	\$0
	Local	0	\$52.52	4	100%	0.00%	90%	252	\$0
Refractory Brick Restoration	Large	0	\$52.52	4	100%	60.00%	90%	47	\$0
	Small	0	\$52.52	4	100%	60.00%	90%	185	\$0
Total								78,321	\$2,747,724

Table 8

Quarterly Exposure Monitoring (Paragraph (d)(2)(iv)); Contract Cost for a Laboratory to Conduct Analysis of Quarterly Exposure Monitoring

This table calculates the contract cost for the employer to have a laboratory conduct analysis of air samples collected during quarterly exposure monitoring.

$$\text{Cost} = (\text{SAMPCOST} * \text{JOBPEL} * \text{SHIFTS} * \text{\#SAMPS} * 4 * \% \text{NOTQUART} * \% \text{ABOVEPEL}) * \text{\#PLANTS}$$

Variables:

SAMPCOST = Variable cost per sample

JOBPEL = Number of job categories exposed above the PEL

SHIFTS = Number of work shifts

\#SAMPS = Number of samples per exposure measurement

\%NOTQUART = Percent of plants not performing quarterly monitoring requirements

\%ABOVEPEL = Percent of plants that have an employee in at least one job category above the PEL

\#PLANTS = Number of plants represented by the model output

		0								
	Size	SAMPCOST	JOBPEL	SHIFTS	\#SAMPS	4 times per Year (Qua	\%NOTQUART	\%ABOVEPEL	\#PLANTS	Item 13 COST
SECTOR 1. ELECTROPLATING										
Hard Chrome	Large	\$84	0	2	3	4	100%	0.00%	837	\$0
	Small	\$84	0	1	3	4	100%	0.00%	1,576	\$0
Job Shop Chrome Plater	Large	\$84	0	2	3	4	100%	0.00%	403	\$0
	Small	\$84	0	1	3	4	100%	0.00%	759	\$0
Captive Shop Chrome Plater	Large	\$84	0	2	3	4	100%	0.00%	550	\$0
	Small	\$84	0	1	3	4	100%	0.00%	1,035	\$0
Job Shop Plater	Large	\$84	0	2	3	4	100%	0.00%	403	\$0
	Small	\$84	0	1	3	4	100%	0.00%	759	\$0
Captive Shop Plater	Large	\$84	0	2	3	4	100%	0.00%	476	\$0
	Small	\$84	0	1	3	4	100%	0.00%	897	\$0
Operator	Large	\$84	0	2	3	4	100%	0.00%	837	\$0
	Small	\$84	1	1	3	4	100%	0.00%	1,576	\$0
SECTOR 2A. WELDING										
GENERAL INDUSTRY										
SMAW	Large	\$84	1	3	2	4	100%	4.85%	3,676	\$358,989
	Small	\$84	1	1	3	4	100%	4.84%	4,120	\$200,713
GMAW	Large	\$84	1	3	2	4	100%	0.37%	2,697	\$20,089

Table 8

	Size	SAMPCOST	JOBPEL	SHIFTS	#SAMPS	4 times per Year (Qua	%NOTQUART	%ABOVEPEL	#PLANTS	Item 13 COST
	Small	\$84	1	1	3	4	100%	0.38%	3,021	\$11,557
TIG	Large	\$84	1	3	2	4	100%	0.00%	817	\$0
	Small	\$84	1	1	3	4	100%	0.00%	915	\$0
SAW	Large	\$84	0	3	2	4	100%	0.00%	327	\$0
	Small	\$84	0	1	3	4	100%	0.00%	366	\$0
Plasma Cutting	Large	\$84	1	3	2	4	100%	0.00%	81	\$0
	Small	\$84	1	1	3	4	100%	0.00%	91	\$0
Plasma Welding	Large	\$84	1	3	2	4	100%	0.00%	81	\$0
	Small	\$84	1	1	3	4	100%	0.00%	91	\$0
Resistance Welding	Large	\$84	1	3	2	4	100%	0.00%	490	\$0
	Small	\$84	1	1	3	4	100%	0.00%	550	\$0
MARITIME										
SMAW	Large	\$84	1	3	1	4	100%	0.00%	18	\$0
	Small	\$84	1	2	1	4	100%	0.00%	10	\$0
GMAW	Large	\$84	1	3	1	4	100%	0.00%	25	\$0
	Small	\$84	1	2	1	4	100%	0.00%	14	\$0
TIG	Large	\$84	1	3	1	4	100%	0.00%	6	\$0
	Small	\$84	1	2	1	4	100%	0.00%	3	\$0
FCAW	Large	\$84	1	3	1	4	100%	0.00%	121	\$0
	Small	\$84	1	2	1	4	100%	0.00%	68	\$0
Plasma Cutting	Large	\$84	1	3	1	4	100%	0.00%	4	\$0
	Small	\$84	1	2	1	4	100%	0.00%	2	\$0
Plasma Welding	Large	\$84	1	3	1	4	100%	0.00%	2	\$0
	Small	\$84	1	2	1	4	100%	0.00%	1	\$0
Oxy-fuel Cutting	Large	\$84	1	3	1	4	100%	0.00%	4	\$0
	Small	\$84	1	2	1	4	100%	0.00%	2	\$0
Air Carbon Arc Cutting	Large	\$84	1	3	1	4	100%	0.00%	2	\$0
	Small	\$84	1	2	1	4	100%	0.00%	1	\$0
	Large	\$84	0	3	1	4	100%	0.00%	0	\$0

Table 8

	Size	SAMPCOST	JOBPEL	SHIFTS	#SAMPS	4 times per Year (Qua	%NOTQUART	%ABOVEPEL	#PLANTS	Item 13 COST
Electric Torch Cutting	Small	\$84	0	2	1	4	100%	0.00%	0	\$0
Thermal Spray Tungsten Cutting	Large	\$84	0	3	1	4	100%	0.00%	0	\$0
	Small	\$84	0	2	1	4	100%	0.00%	0	\$0
SAW	Large	\$84	0	3	1	4	100%	0.00%	16	\$0
	Small	\$84	0	2	1	4	100%	0.00%	9	\$0
CONSTRUCTION										
SMAW	Large	\$84	1	3	1	4	100%	0.00%	209	\$0
	Small	\$84	1	1	1	4	100%	0.00%	1,673	\$0
Plasma Cutting	Large	\$84	0	3	1	4	100%	0.00%	3	\$0
	Small	\$84	1	1	1	4	100%	0.00%	22	\$0
GMAW	Large	\$84	0	3	1	4	100%	0.00%	42	\$0
	Small	\$84	1	1	1	4	100%	0.00%	335	\$0
Brazing	State	\$84	1	3	1	4	100%	0.00%	21	\$0
	Local	\$84	1	1	1	4	100%	0.00%	168	\$0
Metallizing	State	\$84	1	3	1	4	100%	0.00%	4	\$0
	Local	\$84	1	1	1	4	100%	0.00%	33	\$0
GOVERNMENT										
SMAW	Large	\$84	1	1	1	4	100%	0.00%	20	\$0
	Small	\$84	1	1	1	4	100%	0.00%	614	\$0
Plasma Cutting	Large	\$84	1	1	1	4	100%	0.00%	0	\$0
	Small	\$84	1	1	1	4	100%	0.00%	8	\$0
GMAW	Large	\$84	1	1	1	4	100%	0.00%	4	\$0
	Small	\$84	1	1	1	4	100%	0.00%	123	\$0
Brazing	State	\$84	1	1	1	4	100%	0.00%	2	\$0
	Local	\$84	1	1	1	4	100%	0.00%	61	\$0
Metallizing	State	\$84	1	1	1	4	100%	0.00%	1	\$0
	Local	\$84	1	1	1	4	100%	0.00%	12	\$0
SECTOR 2B. MILD STEEL WELDING										
	Large	\$84	1	3	2	4	100%	0.00%	4,929	\$0

Table 8

	Size	SAMPCOST	JOBPEL	SHIFTS	#SAMPS	4 times per Year (Qual	%NOTQUART	%ABOVEPEL	#PLANTS	Item 13 COST
SMAW	Small	\$84	1	1	3	4	100%	0.00%	5,019	\$0
GMAW	Large	\$84	1	3	2	4	100%	0.00%	3,615	\$0
	Small	\$84	1	1	3	4	100%	0.00%	3,680	\$0
TIG	Large	\$84	1	3	2	4	100%	0.00%	1,095	\$0
	Small	\$84	1	1	3	4	100%	0.00%	1,115	\$0
SAW	Large	\$84	1	3	2	4	100%	0.00%	438	\$0
	Small	\$84	1	1	3	4	100%	0.00%	446	\$0
Plasma Cutting	Large	\$84	1	3	2	4	100%	0.00%	110	\$0
	Small	\$84	1	1	3	4	100%	0.00%	112	\$0
Plasma Welding	Large	\$84	1	3	2	4	100%	0.00%	110	\$0
	Small	\$84	1	1	3	4	100%	0.00%	112	\$0
Resistance Welding	Large	\$84	1	3	2	4	100%	0.00%	657	\$0
	Small	\$84	1	1	3	4	100%	0.00%	669	\$0
MARITIME										
SMAW	Large	\$84	0	3	1	4	100%	0.00%	38	\$0
	Small	\$84	0	2	1	4	100%	0.00%	22	\$0
GMAW	Large	\$84	0	3	1	4	100%	0.00%	55	\$0
	Small	\$84	0	2	1	4	100%	0.00%	31	\$0
TIG	Large	\$84	0	3	1	4	100%	0.00%	13	\$0
	Small	\$84	0	2	1	4	100%	0.00%	7	\$0
FCAW	Large	\$84	0	3	1	4	100%	0.00%	259	\$0
	Small	\$84	0	2	1	4	100%	0.00%	147	\$0
Plasma Cutting	Large	\$84	0	3	1	4	100%	0.00%	8	\$0
	Small	\$84	0	2	1	4	100%	0.00%	5	\$0
Plasma Welding	Large	\$84	0	3	1	4	100%	0.00%	3	\$0
	Small	\$84	0	2	1	4	100%	0.00%	0	\$0
Oxy-fuel Cutting	Large	\$84	0	3	1	4	100%	0.00%	8	\$0
	Small	\$84	0	2	1	4	100%	0.00%	0	\$0

Table 8

	Size	SAMPCOST	JOBPEL	SHIFTS	#SAMPS	4 times per Year (Qua	%NOTQUART	%ABOVEPEL	#PLANTS	Item 13 COST
Air Carbon Arc Cutting	Large	\$84	0	3	1	4	100%	0.00%	3	\$0
	Small	\$84	0	2	1	4	100%	0.00%	2	\$0
Electric Torch Cutting	Large	\$84	0	3	1	4	100%	0.00%	0	\$0
	Small	\$84	0	2	1	4	100%	0.00%	0	\$0
Thermal Spray Tungsten Cutting	Large	\$84	0	3	1	4	100%	0.00%	0	\$0
	Small	\$84	0	2	1	4	100%	0.00%	0	\$0
SAW	Large	\$84	0	3	1	4	100%	0.00%	34	\$0
	Small	\$84	0	2	1	4	100%	0.00%	19	\$0
CONSTRUCTION										
SMAW	Large	\$84	0	3	1	4	100%	0.00%	313	\$0
	Small	\$84	0	1	1	4	100%	0.00%	2,368	\$0
Plasma Cutting	Large	\$84	0	3	1	4	100%	0.00%	4	\$0
	Small	\$84	0	1	1	4	100%	0.00%	31	\$0
GMAW	Large	\$84	0	3	1	4	100%	0.00%	62	\$0
	Small	\$84	0	1	1	4	100%	0.00%	473	\$0
Brazing	Large	\$84	0	3	1	4	100%	0.00%	31	\$0
	Small	\$84	0	1	1	4	100%	0.00%	237	\$0
Metallizing	Large	\$84	0	3	1	4	100%	0.00%	6	\$0
	Small	\$84	0	1	1	4	100%	0.00%	47	\$0
SECTOR 3. PAINTING										
AEROSPACE	Large	\$84	1	3	3	4	100%	28.00%	50	\$41,900
	Small	\$84	1	1	3	4	100%	9.00%	62	\$5,653
AUTOBODY	Large	\$84	0	1	1	4	100%	5.00%	330	\$0
	Small	\$84	2	1	1	4	100%	5.00%	1,454	\$48,804
COIL COATING	Large	\$84	0	2	3	4	100%	8.00%	101	\$0
	Small	\$84	0	1	3	4	100%	8.00%	18	\$0
MARITIME	Large	\$84	1	3	1	4	100%	36.00%	274	\$99,448
	Small	\$84	1	1	1	4	100%	36.00%	474	\$57,314
	Large	\$84	1	3	1	4	100%	22.00%	789	\$174,837

Table 8

	Size	SAMPCOST	JOBPEL	SHIFTS	#SAMPS	4 times per Year (Qual)	%NOTQUART	%ABOVEPEL	#PLANTS	Item 13 COST
CONSTRUCTION	Small	\$84	1	1	1	4	100%	22.00%	4,197	\$309,827
GOVERNMENT	Large	\$84	1	3	1	4	100%	12.00%	17	\$2,063
	Small	\$84	1	1	1	4	100%	12.00%	945	\$38,054
SECTOR 4. PRODUCERS OF CHROMATES										
ALL	Large	\$84	0	3	3	4	100%	0.00%	2	\$0
	Small	\$84	0	1	3	4	100%	0.00%	0	\$0
SECTOR 5. CHROMATE PIGMENT PROCEDURES										
ALL	Large	\$84	1	2	3	4	100%	77.00%	2	\$2,583
	Small	\$84	0	1	3	4	100%	0.00%	1	\$0
SECTOR 6. CCA PRODUCERS										
ALL	Large	\$84	0	3	3	4	100%	0.00%	3	\$0
	Small	\$84	0	3	0	4	100%	0.00%	0	\$0
SECTOR 7. CHROMIUM CATALYST PRODUCERS										
ALL	Large	\$84	0	3	3	4	100%	0.00%	5	\$0
	Small	\$84	0	1	3	4	100%	0.00%	0	\$0
SECTOR 8. PAINT AND COATING PRODUCERS										
ALL	Large	\$84	0	2	3	4	100%	0.00%	78	\$0
	Small	\$84	0	2	3	4	100%	0.00%	123	\$0
SECTOR 9. PRINTING INK PRODUCERS										
ALL	Large	\$84	0	1	9	4	100%	0.00%	2	\$0
	Small	\$84	0	1	5	4	100%	0.00%	7	\$0
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS										
ALL	Large	\$84	3	3	3	4	100%	36.00%	79	\$258,268
	Small	\$84	5	1	3	4	100%	36.00%	39	\$70,181
SECTOR 11. PLATING MIXTURE PRODUCERS										
ALL	Large	\$84	0	1	3	4	100%	0.00%	6	\$0
	Small	\$84	0	1	3	4	100%	0.00%	4	\$0
SECTOR 13. CHROMIUM METAL PRODUCERS										
ALL	Large	\$84	0	3	3	4	100%	0.00%	1	\$0
	Small	\$84	0	1	1	4	0%	0.00%	0	\$0
SECTOR 14. IRON AND STEEL MILLS										

Table 8

	Size	SAMPCOST	JOBPEL	SHIFTS	#SAMPS	4 times per Year (Qua	%NOTQUART	%ABOVEPEL	#PLANTS	Item 13 COST
ALLOY AND STAINLESS STEEL	Large	\$84	0	3	3	4	100%	0.00%	39	\$0
	Small	\$84	0	1	3	4	100%	0.00%	12	\$0
CARBON STEEL	Large	\$84	0	3	3	4	100%	0.00%	116	\$0
	Small	\$84	0	1	1	4	100%	0.00%	37	\$0
SECTOR 14.B FORGING INDUSTRY										
Reshaping	Large	\$84	0	1	3	4	100%	63.00%	33	\$0
	Small	\$84	0	1	3	4	100%	63.00%	31	\$0
SECTOR 15. IRON AND STEEL FOUNDRIES										
ALL	Large	\$84	0	3	5	4	100%	0.00%	152	\$0
	Small	\$84	0	1	5	4	100%	0.00%	111	\$0
SECTOR 17. CHROMIUM DYE PRODUCERS										
ALL	Large	\$84	7	1	21	4	100%	62.00%	2	\$76,436
	Small	\$84	5	1	7	4	100%	62.00%	1	\$6,066
SECTOR 18. CHROMIUM SULFATE PRODUCERS										
ALL	Large	\$84	0	1	3	4	100%	0.00%	0	\$0
	Small	\$84	0	1	3	4	100%	0.00%	5	\$0
SECTOR 19. CHEMICAL DISTRIBUTORS										
ALL	Large	\$84	0	1	3	4	100%	0.00%	212	\$0
	Small	\$84	0	1	3	4	100%	0.00%	1,600	\$0
SECTOR 20. TEXTILE DYEING										
ALL	Large	\$84	0	3	3	4	100%	0.00%	307	\$0
	Small	\$84	0	1	2	4	100%	0.00%	623	\$0
SECTOR 21. COLORED GLASS PRODUCERS										
General Industry	Large	\$84	0	3	12	4	100%	0.00%	8	\$0
	Small	\$84	0	1	4	4	100%	0.00%	24	\$0
Fiber, Flat and Container Glass	Large	\$84	1	1	1	4	100%	20.00%	111	\$7,440
	Small	\$84	1	1	1	4	100%	0.00%	6	\$0
SECTOR 22. PRINTING										
ALL	Large	\$84	0	3	2	4	100%	0.00%	78	\$0
	Small	\$84	0	1	2	4	100%	0.00%	312	\$0
SECTOR 24. CHROMIUM CATALYST USERS										

Table 8

	Size	SAMPCOST	JOBPEL	SHIFTS	#SAMPs	4 times per Year (Qual)	%NOTQUART	%ABOVEPEL	#PLANTS	Item 13 COST
Chromium Users	Large	\$84	0	3	3	4	100%	0.00%	193	\$0
	Small	\$84	0	1	3	4	100%	0.00%	0	\$0
Chromium Catalyst Service Companies	Large	\$84	0	3	3	4	100%	0.00%	25	\$0
	Small	\$84	0	1	3	4	100%	0.00%	5	\$0
SECTOR 25. REFRACTORY BRICK PRODUCERS										
ALL	Large	\$84	0	1	15	4	100%	0.00%	5	\$0
	Small	\$84	0	1	0	4	100%	0.00%	0	\$0
SECTOR 26. WOODWORKING										
General Industry	Large	\$84	0	1	2	4	100%	0.00%	143	\$0
	Small	\$84	0	1	2	4	100%	0.00%	76	\$0
Maritime	Large	\$84	0	1	1	4	100%	0.00%	36	\$0
	Small	\$84	0	1	1	4	100%	0.00%	32	\$0
Construction	Large	\$84	0	1	1	4	22%	0.00%	1,232	\$0
	Small	\$84	0	1	1	4	22%	0.00%	4,932	\$0
Government	State	\$84	0	1	1	4	22%	0.00%	17	\$0
	Local	\$84	0	1	1	4	22%	0.00%	62	\$0
SECTOR 27. SOLID WASTER INCINERATION										
GENERAL INDUSTRY	Large	\$84	0	3	15	4	100%	0.00%	39	\$0
	Small	\$84	0	1	3	4	100%	0.00%	47	\$0
GOVERNMENT	Large	\$84	0	3	15	4	100%	0.00%	0	\$0
	Small	\$84	0	1	3	4	100%	0.00%	24	\$0
SECTOR 30. SUPERALLOY PRODUCERS AND USERS										
ALL	Large	\$84	0	3	3	4	100%	0.00%	18	\$0
	Small	\$84	0	3	3	4	100%	0.00%	0	\$0
SECTOR 31. CONSTRUCTION										
Industrial Rehabilitation	Large	\$84	0	1	1	4	100%	0.00%	54	\$0
	Small	\$84	0	1	1	4	100%	0.00%	247	\$0
	State	\$84	0	1	1	4	100%	0.00%	16	\$0
	Local	\$84	0	1	1	4	100%	0.00%	93	\$0
	Large	\$84	0	1	1	4	100%	0.00%	43	\$0

Table 8

	Size	SAMPCOST	JOBPEL	SHIFTS	#SAMPS	4 times per Year (Qua	%NOTQUART	%ABOVEPEL	#PLANTS	Item 13 COST
Hazardous Waste-site Work	Small	\$84	0	1	1	4	100%	0.00%	180	\$0
	State	\$84	0	1	1	4	100%	0.00%	1	\$0
	Local	\$84	0	1	1	4	100%	0.00%	252	\$0
Refractory Brick Restoration	Large	\$84	0	1	1	4	100%	60.00%	47	\$0
	Small	\$84	0	1	1	4	100%	60.00%	185	\$0
Total									78,321	\$1,790,224

Table 9

TABLE 9: Employer Time and Cost to Notify Employees of Quarterly Monitoring Results

$$\text{BURDEN HOURS} = ((\text{NOTETIME} * \text{JOBPEL} * \text{SHIFTS} * \# \text{SAMPS} * 4) * \% \text{NOTQUART} * \% \text{ABOVEPEL}) * \# \text{PLANTS}$$

$$\text{COST} = (\text{SUPWAGE}) * \text{BURDEN HOURS}$$

Variables:

SUPWAGE = Supervisory wage rate, \$/hr.

NOTETIME = Time, in hours, to notify an employee of the exposure monitoring results

JOBPEL = Number of job categories exposed above the PEL

SHIFTS = Number of work shifts

#SAMPS = Number of samples per exposure measurement

%NOTQUART = Percent of plants not performing quarterly monitoring requirements

%ABOVEPEL = Percent of plants that have an employee in at least one job category above the PEL

*** #PLANTS** = Number of plants represented by the model input

VARIABLES	SIZE	JOBPEL	SHIFTS	#SAMPS	*4 TIMES PER YEAR (QUARTERLY)	%NOTQUART	%ABOVEPEL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	SUPWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING														
Hard Chrome	Large	0	2	3	4	100%	0%	837	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	1,576	-	-	0.25	-	\$ 43.90	\$ -
Job Shop Chrome Plater	Large	0	2	3	4	100%	0%	403	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	759	-	-	0.25	-	\$ 43.90	\$ -
Captive Shop Chrome Plater	Large	0	2	3	4	100%	0%	550	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	1,035	-	-	0.25	-	\$ 43.90	\$ -
Job Shop Plater	Large	0	2	3	4	100%	0%	403	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	759	-	-	0.25	-	\$ 43.90	\$ -
Captive Shop Plater	Large	0	2	3	4	100%	0%	476	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	897	-	-	0.25	-	\$ 43.90	\$ -
Operator	Large	0	2	3	4	100%	0%	837	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	1,576	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 2A. WELDING														
GENERAL INDUSTRY														
SMAW	Large	1	3	2	4	100%	5%	3,676	1,070	4,279	0.25	1,070	\$ 43.90	\$ 46,969
	Small	1	1	3	4	100%	5%	4,120	598	2,393	0.25	598	\$ 43.90	\$ 26,261
GMAW	Large	1	3	2	4	100%	0%	2,697	60	239	0.25	60	\$ 43.90	\$ 2,628
	Small	1	1	3	4	100%	0%	3,021	34	138	0.25	34	\$ 43.90	\$ 1,512
TIG	Large	1	3	2	4	100%	0%	817	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	3	4	100%	0%	915	-	-	0.25	-	\$ 43.90	\$ -
SAW	Large	0	3	2	4	100%	0%	327	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	366	-	-	0.25	-	\$ 43.90	\$ -
Plasma Cutting	Large	1	3	2	4	100%	0%	81	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	3	4	100%	0%	91	-	-	0.25	-	\$ 43.90	\$ -
Plasma Welding	Large	1	3	2	4	100%	0%	81	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	3	4	100%	0%	91	-	-	0.25	-	\$ 43.90	\$ -
Resistance Welding	Large	1	3	2	4	100%	0%	490	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	3	4	100%	0%	550	-	-	0.25	-	\$ 43.90	\$ -
MARITIME														

Table 9

VARIABLES	SIZE	JOBPEL	SHIFTS	#SAMPS	*4 TIMES PER YEAR (QUARTERLY)	%NOTQUART	%ABOVEPEL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	SUPWAGE	ITEM 12 COST
SMAW	Large	1	1	1	4	100%	0%	18	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	10	-	-	0.25	-	\$ 43.90	\$ -
GMAW	Large	1	1	1	4	100%	0%	25	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	14	-	-	0.25	-	\$ 43.90	\$ -
TIG	Large	1	1	1	4	100%	0%	6	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	3	-	-	0.25	-	\$ 43.90	\$ -
FCAW	Large	1	1	1	4	100%	0%	121	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	68	-	-	0.25	-	\$ 43.90	\$ -
Plasma Cutting	Large	1	1	1	4	100%	0%	4	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	2	-	-	0.25	-	\$ 43.90	\$ -
Plasma Welding	Large	1	1	1	4	100%	0%	2	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	1	-	-	0.25	-	\$ 43.90	\$ -
Oxy-fuel Cutting	Large	1	1	1	4	100%	0%	4	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	2	-	-	0.25	-	\$ 43.90	\$ -
Air Carbon Arc Cutting	Large	1	1	1	4	100%	0%	2	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	1	-	-	0.25	-	\$ 43.90	\$ -
Electric Torch Cutting	Large	0	1	1	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	1	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
Thermal Spray Tungsten Cutting	Large	0	1	1	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	1	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
SAW	Large	0	1	1	4	100%	0%	16	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	1	4	100%	0%	9	-	-	0.25	-	\$ 43.90	\$ -
CONSTRUCTION														
SMAW	Large	1	3	1	4	100%	0%	209	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	1,673	-	-	0.25	-	\$ 43.90	\$ -
Plasma Cutting	Large	0	3	1	4	100%	0%	3	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	22	-	-	0.25	-	\$ 43.90	\$ -
GMAW	Large	0	3	1	4	100%	0%	42	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	335	-	-	0.25	-	\$ 43.90	\$ -
Brazing	State	1	3	1	4	100%	0%	21	-	-	0.25	-	\$ 43.90	\$ -
	Local	1	1	1	4	100%	0%	168	-	-	0.25	-	\$ 43.90	\$ -
Metallizing	State	1	3	1	4	100%	0%	4	-	-	0.25	-	\$ 43.90	\$ -
	Local	1	1	1	4	100%	0%	33	-	-	0.25	-	\$ 43.90	\$ -
GOVERNMENT														
SMAW	Large	1	1	1	4	100%	0%	20	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	614	-	-	0.25	-	\$ 43.90	\$ -
Plasma Cutting	Large	0	1	1	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	8	-	-	0.25	-	\$ 43.90	\$ -

Table 9

VARIABLES	SIZE	JOBEL	SHIFTS	#SAMPS	*4 TIMES PER YEAR (QUARTERLY)	%NOTQUART	%ABOVEPEL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	SUPWAGE	ITEM 12 COST
GMAW	Large	1	1	1	4	100%	0%	4	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	123	-	-	0.25	-	\$ 43.90	\$ -
Brazing	State	1	1	1	4	100%	0%	2	-	-	0.25	-	\$ 43.90	\$ -
	Local	1	1	1	4	100%	0%	61	-	-	0.25	-	\$ 43.90	\$ -
Metallizing	State	1	1	1	4	100%	0%	1	-	-	0.25	-	\$ 43.90	\$ -
	Local	1	1	1	4	100%	0%	12	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 2B. MILD STEEL WELDING														
GENERAL INDUSTRY														
SMAW	Large	0	1	1	4	100%	0%	4,929	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	5,019	-	-	0.25	-	\$ 43.90	\$ -
GMAW	Large	1	1	1	4	100%	0%	3,615	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	3,680	-	-	0.25	-	\$ 43.90	\$ -
TIG	Large	1	1	1	4	100%	0%	1,095	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	1,115	-	-	0.25	-	\$ 43.90	\$ -
SAW	Large	1	1	1	4	100%	0%	438	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	446	-	-	0.25	-	\$ 43.90	\$ -
Plasma Cutting	Large	0	1	1	4	100%	0%	110	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	112	-	-	0.25	-	\$ 43.90	\$ -
Plasma Welding	Large	1	1	1	4	100%	0%	110	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	112	-	-	0.25	-	\$ 43.90	\$ -
Resistance Welding	Large	1	1	1	4	100%	0%	657	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	1	4	100%	0%	669	-	-	0.25	-	\$ 43.90	\$ -
MARITIME														
SMAW	Large	0	3	1	4	100%	0%	38	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	22	-	-	0.25	-	\$ 43.90	\$ -
GMAW	Large	0	3	1	4	100%	0%	55	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	31	-	-	0.25	-	\$ 43.90	\$ -
TIG	Large	0	3	1	4	100%	0%	13	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	7	-	-	0.25	-	\$ 43.90	\$ -
FCAW	Large	0	3	1	4	100%	0%	259	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	147	-	-	0.25	-	\$ 43.90	\$ -
Plasma Cutting	Large	0	3	1	4	100%	0%	8	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	5	-	-	0.25	-	\$ 43.90	\$ -
Plasma Welding	Large	0	3	1	4	100%	0%	3	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
Oxy-fuel Cutting	Large	0	3	1	4	100%	0%	8	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
Air Carbon Arc Cutting	Large	0	3	1	4	100%	0%	3	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	2	-	-	0.25	-	\$ 43.90	\$ -

Table 9

VARIABLES	SIZE	JOBPEL	SHIFTS	#SAMPS	*4 TIMES PER YEAR (QUARTERLY)	%NOTQUART	%ABOVEPEL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	SUPWAGE	ITEM 12 COST
Electric Torch Cutting	Large	0	3	1	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
Thermal Spray Tungsten Cutting	Large	0	3	1	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
SAW	Large	0	3	1	4	100%	0%	34	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	19	-	-	0.25	-	\$ 43.90	\$ -
CONSTRUCTION														
SMAW	Large	0	3	1	4	100%	0%	313	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	2,368	-	-	0.25	-	\$ 43.90	\$ -
Plasma Cutting	Large	0	3	1	4	100%	0%	4	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	31	-	-	0.25	-	\$ 43.90	\$ -
GMAW	Large	0	3	1	4	100%	0%	62	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	1	4	100%	0%	473	-	-	0.25	-	\$ 43.90	\$ -
Brazing	State	0	3	1	4	100%	0%	31	-	-	0.25	-	\$ 43.90	\$ -
	Local	0	2	1	4	100%	0%	237	-	-	0.25	-	\$ 43.90	\$ -
Metallizing	State	0	3	1	4	100%	0%	6	-	-	0.25	-	\$ 43.90	\$ -
	Local	0	2	1	4	100%	0%	47	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 3. PAINTING														
GENERAL INDUSTRY														
Aerospace	Large	1	3	3	4	100%	28%	50	125	499	0.25	125	\$ 43.90	\$ 5,482
	Small	1	1	3	4	100%	9%	62	17	67	0.25	17	\$ 43.90	\$ 740
Autobody	Large	1	3	3	4	100%	5%	330	149	595	0.25	149	\$ 43.90	\$ 6,526
	Small	1	1	3	4	100%	5%	1,454	218	873	0.25	218	\$ 43.90	\$ 9,578
Coil Coating	Large	1	3	3	4	100%	8%	101	73	291	0.25	73	\$ 43.90	\$ 3,191
	Small	1	1	3	4	100%	8%	18	4	18	0.25	4	\$ 43.90	\$ 193
Maritime	Large	1	3	3	4	100%	36%	274	889	3,556	0.25	889	\$ 43.90	\$ 39,034
	Small	1	1	3	4	100%	36%	474	512	2,050	0.25	512	\$ 43.90	\$ 22,496
Construction	Large	1	3	3	4	100%	22%	789	1,563	6,252	0.25	1,563	\$ 43.90	\$ 68,626
	Small	1	1	3	4	100%	22%	4,197	2,770	11,080	0.25	2,770	\$ 43.90	\$ 121,611
Government	Large	1	3	3	4	100%	12%	17	18	74	0.25	18	\$ 43.90	\$ 810
	Small	1	1	3	4	100%	12%	945	340	1,361	0.25	340	\$ 43.90	\$ 14,937
SECTOR 4. PRODUCERS OF CHROMATES														
All	Large	0	3	3	4	100%	0%	2	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES														
All	Large	1	2	3	4	100%	77%	2	8	31	0.25	8	\$ 43.90	\$ 338
	Small	0	1	3	4	100%	0%	1	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 6. CCA PRODUCERS														
All	Large	0	3	3	4	100%	0%	3	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	3	0	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -

Table 9

VARIABLES	SIZE	JOPEL	SHIFTS	#SAMPS	*4 TIMES PER YEAR (QUARTERLY)	%NOTQUART	%ABOVEPEL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	SUPWAGE	ITEM 12 COST
SECTOR 7. CHROMIUM CATALYST PRODUCERS														
All	Large	0	3	3	4	100%	0%	5	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS														
All	Large	0	2	3	4	100%	0%	78	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	2	3	4	100%	0%	123	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 9. PRINTING INK PRODUCERS														
All	Large	0	1	9	4	100%	0%	2	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	5	4	100%	0%	7	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS														
All	Large	3	3	3	4	100%	36%	79	770	3,079	0.25	770	\$ 43.90	\$ 33,791
	Small	5	1	3	4	100%	36%	39	209	837	0.25	209	\$ 43.90	\$ 9,182
SECTOR 11. PLATING MIXTURE PRODUCERS														
All	Large	0	1	3	4	100%	0%	6	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	4	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 13. CHROMIUM METAL PRODUCERS														
All	Large	0	3	3	4	100%	0%	1	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	1	4	0%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 14. IRON AND STEEL MILLS														
Alloy and Stainless Steel	Large	0	3	3	4	100%	0%	39	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	12	-	-	0.25	-	\$ 43.90	\$ -
Carbon Steel	Large	3	3	3	4	100%	38%	116	1,192	4,767	0.25	1,192	\$ 43.90	\$ 52,327
	Small	1	1	3	4	100%	38%	37	42	167	0.25	42	\$ 43.90	\$ 1,828
SECTOR 14.B FORGING INDUSTRY														
Forging Industry	Large	3	3	3	4	100%	38%	33	341	1,363	0.25	341	\$ 43.90	\$ 14,957
	Small	1	1	3	4	100%	38%	31	36	143	0.25	36	\$ 43.90	\$ 1,566
SECTOR 15. IRON AND STEEL FOUNDRIES														
All	Large	0	3	5	4	100%	0%	152	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	5	4	100%	0%	111	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 17. CHROMIUM DYE PRODUCERS														
All	Large	7	1	21	4	100%	62%	2	228	911	0.25	228	\$ 43.90	\$ 10,001
	Small	5	1	7	4	100%	62%	1	18	72	0.25	18	\$ 43.90	\$ 794
SECTOR 18. CHROMIUM SULFATE PRODUCERS														
All	Large	0	1	3	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	5	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 19. CHEMICAL DISTRIBUTORS														
All	Large	0	1	3	4	100%	0%	212	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	1,600	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 20. TEXTILE DYEING														
All	Large	0	3	3	4	100%	0%	307	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	2	4	100%	0%	623	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 21. COLORED GLASS PRODUCERS														
	Large	0	3	12	4	25%	0%	8	-	-	0.25	-	\$ 43.90	\$ -

Table 9

VARIABLES	SIZE	JOBPEL	SHIFTS	#SAMPS	*4 TIMES PER YEAR (QUARTERLY)	%NOTQUART	%ABOVEPEL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	SUPWAGE	ITEM 12 COST
General Industry	Small	0	1	4	4	0%	0%	24	-	-	0.25	-	\$ 43.90	\$ -
Fiber, Flat, and Container Glass	Large	1	3	1	4	25%	0%	111	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	1	4	0%	0%	6	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 22. PRINTING														
All	Large	0	3	2	4	100%	0%	78	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	2	4	100%	0%	312	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 24. CHROMIUM CATALYST USERS														
Catalyst Users	Large	0	3	3	4	100%	13%	193	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
Catalyst Companies	Large	2	3	3	4	100%	13%	25	58	232	0.25	58	\$ 43.90	\$ 2,548
	Small	0	1	3	4	100%	0%	5	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 25. REFRACTORY BRICK PRODUCERS														
All	Large	0	1	15	4	100%	0%	5	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	0	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 26. WOODWORKING														
General Industry	Large	0	1	2	4	100%	0%	143	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	2	4	100%	0%	76	-	-	0.25	-	\$ 43.90	\$ -
Maritime	Large	0	1	2	4	100%	0%	36	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	2	4	100%	0%	32	-	-	0.25	-	\$ 43.90	\$ -
Construction	Large	1	1	2	4	100%	0%	1,232	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	2	4	100%	0%	4,932	-	-	0.25	-	\$ 43.90	\$ -
Government	Large	1	1	2	4	100%	0%	17	-	-	0.25	-	\$ 43.90	\$ -
	Small	1	1	2	4	100%	0%	62	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 27. SOLID WASTER INCINERATION														
General Industry	Large	0	3	15	4	100%	0%	39	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	3	4	100%	0%	47	-	-	0.25	-	\$ 43.90	\$ -
Government	State	0	3	15	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
	Local	0	1	3	4	100%	0%	24	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS														
All	Large	0	3	3	4	100%	0%	18	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	3	3	4	100%	0%	0	-	-	0.25	-	\$ 43.90	\$ -
SECTOR 31. CONSTRUCTION														
Industrial Rehabilitation	Large	0	1	3	4	100%	0%	54	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	2	4	100%	0%	247	-	-	0.25	-	\$ 43.90	\$ -
	State	0	1	2	4	100%	0%	16	-	-	0.25	-	\$ 43.90	\$ -
	Local	0	1	3	4	100%	0%	93	-	-	0.25	-	\$ 43.90	\$ -
Hazardous Waste-site Work	Large	0	1	1	4	100%	0%	43	-	-	0.25	-	\$ 43.90	\$ -
	Small	0	1	1	4	100%	0%	180	-	-	0.25	-	\$ 43.90	\$ -
	State	0	1	1	4	100%	0%	1	-	-	0.25	-	\$ 43.90	\$ -
	Local	0	1	1	4	100%	0%	252	-	-	0.25	-	\$ 43.90	\$ -
	Large	1	1	1	4	100%	60%	47	28	113	0.25	28	\$ 43.90	\$ 1,235

Table 9

VARIABLES	SIZE	JOBEL	SHIFTS	#SAMPS	*4 TIMES PER YEAR (QUARTERLY)	%NOTQUART	%ABOVEPEL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	SUPWAGE	ITEM 12 COST
Refractory Brick Restoration	Small	1	1	1	4	100%	60%	185	111	445	0.25	111	\$ 43.90	\$ 4,885
Weighted Average/Average/Total					4			78,321	11,481	45,924	0.25	11,481	\$ 43.90	\$ 504,016

Table 9a (Remand)

TABLE 9A: Employer Time and Cost to Notify Employees of Initial Monitoring Results

BURDEN HOURS = (NOTETIME * JOBCAT * SHIFTS * #SAMPS * #INIT * %INITADD * #PLANTS)

COST = BURDEN HOURS * NONSUPWAGE

Variables

NOTETIME = Time, in hours, to notify an employee of the exposure monitoring results by posting .25 hours (15 minutes).

NONSUPWAGE = Non-supervisory wage rate, \$/hr.

JOBCAT = Number of job categories (covering each work area)

SHIFTS = Number of work shifts

#SAMPS = Number of samples per exposure measurement

#INIT = Equals two, reflecting that initial monitoring will have to be conducted twice — with readings below the action level in order for the requirement of semi-annual monitoring to be waived.

%INITADD = Percent of plants that have not satisfied initial monitoring requirement

#PLANTS * 5% = Number of plants represented by the model output * 5%

VARIABLES	SIZE	JOBCAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	#PLANTS * 5%	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING														
Hard Chrome	Large	7	2	3	2	25%	837 0	42	440	879	0.25	220	\$32.54	\$ 7,153
	Small	7	1	3	2	25%	1,576	79	414	827	0.25	207	\$32.54	\$ 6,731
Job Shop Chrome Plater	Large	1	2	3	2	25%	403 0	20	30	61	0.25	15	\$32.54	\$ 492
	Small	1	1	3	2	25%	759	38	28	57	0.25	14	\$32.54	\$ 463
Captive Shop Chrome Plater	Large	1	2	3	2	25%	550 0	28	41	83	0.25	21	\$32.54	\$ 671
	Small	1	1	3	2	25%	1,035	52	39	78	0.25	19	\$32.54	\$ 632
Job Shop Plater	Large	1	2	3	2	25%	403 0	20	30	61	0.25	15	\$32.54	\$ 492
	Small	1	1	3	2	25%	759	38	28	57	0.25	14	\$32.54	\$ 463
Captive Shop Plater	Large	1	2	3	2	25%	476 0	24	36	71	0.25	18	\$32.54	\$ 581
	Small	1	1	3	2	25%	897	45	34	67	0.25	17	\$32.54	\$ 547
Operator	Large	1	2	3	2	25%	837 0	42	63	126	0.25	31	\$32.54	\$ 1,022
	Small	1	1	3	2	25%	1,576	79	59	118	0.25	30	\$32.54	\$ 962
SECTOR 2A. WELDING														
GENERAL INDUSTRY														
SMAW	Large	1	3	2	2	25%	3,676 0	184	276	551	0.25	138	\$32.54	\$ 4,486
	Small	1	1	3	2	25%	4,120	206	154	309	0.25	77	\$32.54	\$ 2,514
GMAW	Large	1	3	2	2	25%	2,697 0	135	202	405	0.25	101	\$32.54	\$ 3,291
	Small	1	1	3	2	25%	3,021	151	113	227	0.25	57	\$32.54	\$ 1,843
TIG	Large	1	3	2	2	25%	817 0	41	61	123	0.25	31	\$32.54	\$ 997
	Small	1	1	3	2	25%	915	46	34	69	0.25	17	\$32.54	\$ 558
SAW	Large	1	3	2	2	25%	327 0	16	24	49	0.25	12	\$32.54	\$ 398
	Small	1	1	3	2	25%	366	18	14	27	0.25	7	\$32.54	\$ 223
Plasma Cutting	Large	1	3	2	2	25%	81 0	4	6	12	0.25	3	\$32.54	\$ 99
	Small	1	1	3	2	25%	91	5	3	7	0.25	2	\$32.54	\$ 56
Plasma Welding	Large	1	3	2	2	25%	81 0	4	6	12	0.25	3	\$32.54	\$ 99
	Small	1	1	3	2	25%	91	5	3	7	0.25	2	\$32.54	\$ 56
Resistance Welding	Large	1	3	2	2	25%	490 0	25	37	74	0.25	18	\$32.54	\$ 598
	Small	1	1	3	2	25%	550	27	21	41	0.25	10	\$32.54	\$ 335
MARITIME														
SMAW	Large	1	3	1	2	75%	18	1	2	4	0.25	1	\$32.54	\$ 33
	Small	1	2	1	2	75%	10	1	1	2	0.25	0.4	\$32.54	\$ 12

Table 9a (Remand)

VARIABLES	SIZE	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	# PLANTS * 5%	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
GMAW	Large	1	3	1	2	75%	25	1	3	6	0.25	1	\$32.54	\$ 46
	Small	1	2	1	2	75%	14	1	1	2	0.25	1	\$32.54	\$ 17
TIG	Large	1	3	1	2	75%	6	0.3	1	1	0.25	0.3	\$32.54	\$ 11
	Small	1	2	1	2	75%	3	0.2	0.2	0.5	0.25	0.1	\$32.54	\$ 4
FCAW	Large	1	3	1	2	75%	121	6	14	27	0.25	7	\$32.54	\$ 221
	Small	1	2	1	2	75%	68	3	5	10	0.25	3	\$32.54	\$ 83
Plasma Cutting	Large	1	3	1	2	75%	4	0.2	0.5	1	0.25	0.2	\$32.54	\$ 7
	Small	1	2	1	2	75%	2	0.1	0.2	0.3	0.25	0.1	\$32.54	\$ 2
Plasma Welding	Large	1	3	1	2	75%	2	0.1	0.2	0.5	0.25	0.1	\$32.54	\$ 4
	Small	1	2	1	2	75%	1	0.1	0.1	0.2	0.25	0.0	\$32.54	\$ 1
Oxy-fuel Cutting	Large	1	3	1	2	75%	4	0.2	0.5	1	0.25	0.2	\$32.54	\$ 7
	Small	1	2	1	2	75%	2	0.1	0.2	0.3	0.25	0.1	\$32.54	\$ 2
Air Carbon Arc Cutting	Large	1	3	1	2	75%	2	0.1	0.2	0.5	0.25	0.1	\$32.54	\$ 4
	Small	1	2	1	2	75%	1	0.1	0.1	0.2	0.25	0.04	\$32.54	\$ 1
Electric Torch Cutting	Large	1	3	1	2	75%	0	-	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	75%	0	-	-	-	0.25	-	\$32.54	\$ -
Thermal Spray Tungsten Cutting	Large	1	3	1	2	75%	0	-	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	75%	0	-	-	-	0.25	-	\$32.54	\$ -
SAW	Large	1	3	1	2	75%	16	1	2	4	0.25	1	\$32.54	\$ 29
	Small	1	2	1	2	75%	9	0.5	1	1	0.25	0.3	\$32.54	\$ 11
CONSTRUCTION														
SMAW	Large	1	3	1	2	25%	209	10	8	16	0.25	4	\$32.54	\$ 128
	Small	1	1	1	2	25%	1,673	84	21	42	0.25	10.5	\$32.54	\$ 340
Plasma Cutting	Large	1	3	1	2	25%	3	0.2	0.1	0.2	0.25	0.1	\$32.54	\$ 2
	Small	1	1	1	2	25%	22	1	0.3	1	0.25	0.1	\$32.54	\$ 4
GMAW	Large	1	3	1	2	25%	42	2	2	3	0.25	1	\$32.54	\$ 26
	Small	1	1	1	2	25%	335	17	4	8	0.25	2.1	\$32.54	\$ 68
Brazing	State	1	3	1	2	25%	21	1	1	2	0.25	0.4	\$32.54	\$ 13
	Local	1	1	1	2	25%	168	8	2	4	0.25	1.0	\$32.54	\$ 34
Metallizing	State	1	3	1	2	25%	4	0.2	0.2	0.3	0.25	0.1	\$32.54	\$ 2
	Local	1	1	1	2	25%	33	2	0.4	1	0.25	0.2	\$32.54	\$ 7
GOVERNMENT														
SMAW	Large	1	1	1	2	25%	20	1	0.3	1	0.25	0.1	\$32.54	\$ 4
	Small	1	1	1	2	25%	614	31	8	15	0.25	3.8	\$32.54	\$ 125
Plasma Cutting	Large	1	1	1	2	25%	0	-	-	-	0.25	-	\$32.54	\$ -
	Small	1	1	1	2	25%	8	0.4	0.1	0	0.25	0.1	\$32.54	\$ 2
GMAW	Large	1	1	1	2	25%	4	0.2	0.1	0	0.25	0.03	\$32.54	\$ 1
	Small	1	1	1	2	25%	123	6	2	3	0.25	0.8	\$32.54	\$ 25
Brazing	State	1	1	1	2	25%	2	0.1	0.03	0	0.25	0.01	\$32.54	\$ 0.4
	Local	1	1	1	2	25%	61	3	1	2	0.25	0.4	\$32.54	\$ 12
Metallizing	State	1	1	1	2	25%	1	0.05	0.01	0	0.25	0.01	\$32.54	\$ 0.2

Table 9a (Remand)

VARIABLES	SIZE	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	# PLANTS * 5%	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
	Local	1	1	1	2	25%	12	1	0.2	0	0.25	0.1	\$32.54	\$ 2
SECTOR 2B. MILD STEEL WELDING														
GENERAL INDUSTRY														
SMAW	Large	1	3	2	2	25%	4,929	246	370	739	0.25	185	\$32.54	\$ 6,015
	Small	1	1	3	2	25%	5,019	251	188	376	0.25	94.1	\$32.54	\$ 3,062
GMAW	Large	1	3	2	2	25%	3,615	181	271	542	0.25	136	\$32.54	\$ 4,412
	Small	1	1	3	2	25%	3,680	184	138	276	0.25	69.0	\$32.54	\$ 2,246
TIG	Large	1	3	2	2	25%	1,095	55	82	164	0.25	41	\$32.54	\$ 1,336
	Small	1	1	3	2	25%	1,115	56	42	84	0.25	20.9	\$32.54	\$ 680
SAW	Large	1	3	2	2	25%	438	22	33	66	0.25	16	\$32.54	\$ 535
	Small	1	1	3	2	25%	446	22	17	33	0.25	8.4	\$32.54	\$ 272
Plasma Cutting	Large	1	3	2	2	25%	110	5	8	16	0.25	4	\$32.54	\$ 134
	Small	1	1	3	2	25%	112	6	4	8	0.25	2.1	\$32.54	\$ 68
Plasma Welding	Large	1	3	2	2	25%	110	5	8	16	0.25	4	\$32.54	\$ 134
	Small	1	1	3	2	25%	112	6	4	8	0.25	2.1	\$32.54	\$ 68
Resistance Welding	Large	1	3	2	2	25%	657	33	49	99	0.25	25	\$32.54	\$ 802
	Small	1	1	3	2	25%	669	33	25	50	0.25	12.5	\$32.54	\$ 408
MARITIME														
SMAW	Large	1	3	1	2	75%	38	2	4	9	0.25	2	\$32.54	\$ 70
	Small	1	2	1	2	75%	22	1	2	3	0.25	0.8	\$32.54	\$ 27
GMAW	Large	1	3	1	2	75%	55	3	6	12	0.25	3	\$32.54	\$ 101
	Small	1	2	1	2	75%	31	2	2	5	0.25	1.2	\$32.54	\$ 38
TIG	Large	1	3	1	2	75%	13	1	1	3	0.25	1	\$32.54	\$ 24
	Small	1	2	1	2	75%	7	0.4	1	1	0.25	0.3	\$32.54	\$ 9
FCAW	Large	1	3	1	2	75%	259	13	29	58	0.25	15	\$32.54	\$ 475
	Small	1	2	1	2	75%	147	7	11	22	0.25	5.5	\$32.54	\$ 179
Plasma Cutting	Large	1	3	1	2	75%	8	0.4	1	2	0.25	0.5	\$32.54	\$ 15
	Small	1	2	1	2	75%	5	0.3	0.4	1	0.25	0.2	\$32.54	\$ 6
Plasma Welding	Large	1	3	1	2	75%	3	0.2	0.3	1	0.25	0.2	\$32.54	\$ 6
	Small	1	2	1	2	75%	0	0	-	-	0.25	-	\$32.54	\$ -
Oxy-fuel Cutting	Large	1	3	1	2	75%	8	0.4	1	2	0.25	0.5	\$32.54	\$ 15
	Small	1	2	1	2	75%	0	0	-	-	0.25	-	\$32.54	\$ -
Air Carbon Arc Cutting	Large	1	3	1	2	75%	3	0.2	0.3	1	0.25	0.2	\$32.54	\$ 6
	Small	1	2	1	2	75%	2	0.1	0.2	0.3	0.25	0.1	\$32.54	\$ 2
Electric Torch Cutting	Large	1	3	1	2	75%	0	0	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	75%	0	0	-	-	0.25	-	\$32.54	\$ -
Thermal Spray Tungsten Cutting	Large	1	3	1	2	75%	0	0	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	75%	0	0	-	-	0.25	-	\$32.54	\$ -
SAW	Large	1	3	1	2	75%	34	2	4	8	0.25	2	\$32.54	\$ 63
	Small	1	2	1	2	75%	19	1	1	3	0.25	0.7	\$32.54	\$ 23
CONSTRUCTION														
SMAW	Large	1	3	1	2	25%	313	16	12	24	0.25	6	\$32.54	\$ 191

Table 9a (Remand)

VARIABLES	SIZE	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	# PLANTS * 5%	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
	Small	1	1	1	2	25%	2,368	118	30	59	0.25	14.8	\$32.54	\$ 482
Plasma Cutting	Large	1	3	1	2	25%	4	0.2	0.2	0.3	0.25	0.1	\$32.54	\$ 2
	Small	1	1	1	2	25%	31	2	0.4	1	0.25	0.2	\$32.54	\$ 6
GMAW	Large	1	3	1	2	25%	62	3	2	5	0.25	1	\$32.54	\$ 38
	Small	1	1	1	2	25%	473	24	6	12	0.25	3	\$32.54	\$ 96
Brazing	State	1	3	1	2	25%	31	2	1	2	0.25	1	\$32.54	\$ 19
	Local	1	1	1	2	25%	237	12	3	6	0.25	1	\$32.54	\$ 48
Metallizing	State	1	3	1	2	25%	6	0.3	0.2	0.5	0.25	0.1	\$32.54	\$ 4
	Local	1	1	1	2	25%	47	2	1	1	0.25	0.3	\$32.54	\$ 10
SECTOR 3. PAINTING														
GENERAL INDUSTRY														
General Industry (Aerospace)	Large	2	3	3	2	25%	50	2	11	22	0.25	6	\$32.54	\$ 181
	Small	1	1	3	2	25%	62	3	2	5	0.25	1	\$32.54	\$ 38
General Industry (Autobody)	Large	2	2	3	2	25%	330	17	50	99	0.25	25	\$32.54	\$ 806
	Small	2	1	3	2	25%	1,454	73	109	218	0.25	55	\$32.54	\$ 1,775
General Industry (Coil Coating)	Large	2	2	3	2	25%	101	5	15	30	0.25	8	\$32.54	\$ 246
	Small	2	1	3	2	25%	18	1	1	3	0.25	1	\$32.54	\$ 22
Maritime	Large	3	3	1	2	25%	274	14	31	62	0.25	15	\$32.54	\$ 502
	Small	3	1	1	2	25%	474	24	18	36	0.25	9	\$32.54	\$ 289
Construction	Large	3	3	1	2	25%	789	39	89	178	0.25	44	\$32.54	\$ 1,445
	Small	3	1	1	2	25%	4,197	210	157	315	0.25	79	\$32.54	\$ 2,561
Government	Large	2	3	1	2	25%	17	1	1	3	0.25	1	\$32.54	\$ 21
	Small	2	1	1	2	25%	945	47	24	47	0.25	12	\$32.54	\$ 384
SECTOR 4. PRODUCERS OF CHROMATES														
All	Large	4	3	3	2	100%	2	0	3	7	0.25	2	\$32.54	\$ 55
	Small	0	1	3	2	0%	0	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES														
All	Large	9	2	3	2	25%	2	0.1	1	2	0.25	1	\$32.54	\$ 18
	Small	1	1	3	2	25%	1	0.04	0.03	0.1	0.25	0.02	\$32.54	\$ 1
SECTOR 6. CCA PRODUCERS														
All	Large	4	3	3	2	25%	3	0.1	1	2	0.25	1	\$32.54	\$ 19
	Small	0	3	0	2	0%	0	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS														
All	Large	14	3	3	2	25%	5	0.2	7	15	0.25	4	\$32.54	\$ 119
	Small	0	1	3	2	0%	0	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS														
All	Large	4	2	3	2	25%	78	4	23	47	0.25	12	\$32.54	\$ 382
	Small	4	2	3	2	25%	123	6	37	74	0.25	18	\$32.54	\$ 600
SECTOR 9. PRINTING INK PRODUCERS														
All	Large	5	1	9	2	100%	2	0.1	5	10	0.25	2	\$32.54	\$ 81
	Small	3	1	5	2	100%	7	0.4	6	11	0.25	3	\$32.54	\$ 90
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS														
All	Large	4	3	3	2	25%	79	4	36	71	0.25	18	\$32.54	\$ 580
	Small	1	1	3	2	25%	39	2	1	3	0.25	1	\$32.54	\$ 24

Table 9a (Remand)

VARIABLES	SIZE	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	# PLANTS * 5%	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 11. PLATING MIXTURE PRODUCERS														
All	Large	3	1	3	2	75%	6	0.3	2	4	0.25	1	\$32.54	\$ 32
	Small	3	1	3	2	75%	4	0.2	1	3	0.25	1	\$32.54	\$ 22
SECTOR 13. CHROMIUM METAL PRODUCERS														
All	Large	16	3	3	2	100%	1	0.1	7	15	0.25	4	\$32.54	\$ 122
	Small	0	1	1	2	0%	0	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS														
Alloy Stainless Steel	Large	8	3	3	2	75%	39	2	105	209	0.25	52	\$32.54	\$ 1,701
	Small	4	1	3	2	75%	12	1	6	11	0.25	3	\$32.54	\$ 91
Carbon Steel	Large	8	3	3	2	75%	116	6	314	627	0.25	157	\$32.54	\$ 5,103
	Small	4	1	3	2	75%	37	2	16	33	0.25	8	\$32.54	\$ 267
SECTOR 14.B FORGING INDUSTRY														
Forging Industry	Large	5	1	3	2	75%	33	2	19	37	0.25	9	\$32.54	\$ 304
	Small	2	1	1	2	75%	31	2	2	5	0.25	1	\$32.54	\$ 38
SECTOR 15. IRON AND STEEL FOUNDRIES														
All	Large	9	3	5	2	25%	152	8	257	514	0.25	128	\$32.54	\$ 4,178
	Small	5	1	5	2	25%	111	6	35	69	0.25	17	\$32.54	\$ 563
SECTOR 17. CHROMIUM DYE PRODUCERS														
All	Large	7	1	21	2	25%	2	0.1	5	9	0.25	2	\$32.54	\$ 75
	Small	5	1	7	2	25%	1	0.0	0.4	1	0.25	0.2	\$32.54	\$ 6
SECTOR 18. CHROMIUM SULFATE PRODUCERS														
All	Large	0	1	3	2	0%	0	0	-	-	0.25	-	\$32.54	\$ -
	Small	2	1	3	2	100%	5	0.2	1	3	0.25	1	\$32.54	\$ 23
SECTOR 19. CHEMICAL DISTRIBUTORS														
All	Large	1	1	3	2	75%	212	11	24	48	0.25	12	\$32.54	\$ 388
	Small	1	1	3	2	75%	1,600	80	180	360	0.25	90	\$32.54	\$ 2,928
SECTOR 20. TEXTILE DYEING														
All	Large	3	3	3	2	75%	307	15	311	622	0.25	155	\$32.54	\$ 5,057
	Small	2	1	2	2	75%	623	31	93	187	0.25	47	\$32.54	\$ 1,520
SECTOR 21. COLORED GLASS PRODUCERS														
General Industry	Large	3	3	12	2	75%	8	0.4	31	63	0.25	16	\$32.54	\$ 510
	Small	2	1	4	2	75%	24	1	7	15	0.25	4	\$32.54	\$ 120
Fiber, Flat and Container Glass	Large	3	3	12	2	75%	111	6	449	898	0.25	225	\$32.54	\$ 7,306
	Small	2	1	4	2	75%	6	0.3	2	4	0.25	1	\$32.54	\$ 31
SECTOR 22. PRINTING														
All	Large	3	3	2	2	75%	78	4	53	105	0.25	26	\$32.54	\$ 856
	Small	2	1	2	2	75%	312	16	47	93	0.25	23	\$32.54	\$ 761
SECTOR 24. CHROMIUM CATALYST USERS														
Catalyst Users	Large	2	3	3	2	75%	193	10	130	260	0.25	65	\$32.54	\$ 2,114
	Small	0	1	3	2	0%	0	0	-	-	0.25	-	\$32.54	\$ -
Chromium Catalyst Service Companies	Large	2	3	3	2	75%	25	1	17	33	0.25	8	\$32.54	\$ 272
	Small	0	1	3	2	0%	5	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 25. REFRACTORY BRICK PRODUCERS														
All	Large	9	1	15	2	75%	5	0	26	52	0.25	13	\$32.54	\$ 427

Table 9a (Remand)

VARIABLES	SIZE	JOB CAT	SHIFTS	# SAMPS	# INIT	% INITADD	# PLANTS	#PLANTS * 5%	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
	Small	0	1	0	2	75%	0	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 26. WOODWORKING														
General Industry	Large	1	1	1	2	75%	143	7	5	11	0.25	3	\$32.54	\$ 87
	Small	1	1	1	2	75%	76	4	3	6	0.25	1	\$32.54	\$ 47
Maritime	Large	1	1	1	2	75%	36	2	1	3	0.25	1	\$32.54	\$ 22
	Small	1	1	1	2	75%	32	2	1	2	0.25	1	\$32.54	\$ 19
Construction	Large	1	1	1	2	75%	1,232	62	46	92	0.25	23	\$32.54	\$ 752
	Small	1	1	1	2	75%	4,932	247	185	370	0.25	92	\$32.54	\$ 3,009
Government	Large	1	1	1	2	75%	17	1	1	1	0.25	0	\$32.54	\$ 10
	Small	1	1	1	2	75%	62	3	2	5	0.25	1	\$32.54	\$ 38
SECTOR 27. SOLID WASTER INCINERATION														
General Industry	Large	6	3	15	2	75%	39	2	399	799	0.25	200	\$32.54	\$ 6,499
	Small	6	1	3	2	75%	47	2	32	64	0.25	16	\$32.54	\$ 520
Government	State	0	3	15	2	75%	0	0	-	-	0.25	-	\$32.54	\$ -
	Local	6	1	3	2	75%	24	1	16	32	0.25	8	\$32.54	\$ 260
SECTOR 30. SUPERALLOY PRODUCERS AND USERS														
All	Large	12	3	3	2	75%	18	1	71	142	0.25	36	\$32.54	\$ 1,155
	Small	0	3	3	2	0%	0	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 31. CONSTRUCTION														
Industrial rehabilitation	Large	4	1	3	2	75%	54	3	24	48	0.25	12	\$32.54	\$ 394
	Small	4	1	2	2	75%	247	12	74	148	0.25	37	\$32.54	\$ 1,205
	State	1	1	1	2	100%	16	1	1	2	0.25	0.4	\$32.54	\$ 13
	Local	1	1	1	2	100%	93	5	5	9	0.25	2	\$32.54	\$ 75
Hazardous Waste-site Work	Large	1	1	1	2	75%	43	2	2	3	0.25	1	\$32.54	\$ 26
	Small	1	1	1	2	75%	180	9	7	13	0.25	3	\$32.54	\$ 110
	State	1	1	1	2	75%	1	0.04	0.03	0.1	0.25	0.02	\$32.54	\$ 1
	Local	1	1	1	2	75%	252	13	9	19	0.25	5	\$32.54	\$ 154
Refractory Brick Restoration	Large	1	1	1	2	0%	47	2	-	-	0.25	-	\$32.54	\$ -
	Small	1	1	1	2	0%	185	9	-	-	0.25	-	\$32.54	\$ -
Cement Workers	Large	4	1	3	2	75%	9,373	469	4,218	8,436	0.25	2,109	\$32.54	\$ 68,628
	Small	4	1	2	2	75%	96,390	4,819	28,917	57,834	0.25	14,458	\$32.54	\$ 470,498
	State	4	1	3	2	75%	23	1	10	20	0.25	5	\$32.54	\$ 165
	Local	4	1	2	2	75%	774	39	232	465	0.25	116	\$32.54	\$ 3,779
SECTOR 32. Pre-Cast Concrete Products														
All	Large	7	1	11	2	75%	1,094	55	3,160	6,320	0.25	1,580	\$32.54	\$ 51,416
	Small	5	1	6	2	75%	1,800	90	2,025	4,051	0.25	1,013	\$32.54	\$ 32,953
SECTOR 32A. Ready Mix Concrete														
All	Large	7	1	11	2	75%	1,642	82	4,740	9,480	0.25	2,370	\$32.54	\$ 77,123
	Small	5	1	6	2	75%	3,830	192	4,309	8,618	0.25	2,155	\$32.54	\$ 70,112
Total/Average					2		193,248	9,662	54,903	109,806	0.25	27,452	\$32.54	\$ 893,288

Table 9b

TABLE 9B: Employer Time and Cost to Notify Employees of Semi-Annual Monitoring Results

BURDEN HOURS = (NOTETIME * NONSUPWAGE * JOBAL * SHIFTS * #SAMPS * 2 * %NOTSEMI * %ABOVEAL * #PLANTS)

COST = BURDEN HOURS * NON SUPEWAGE

Variables:

NOTETIME = Time, in hours, to notify an employee of the exposure monitoring results by posting .25 hours (15 minutes).

NONSUPEWAGE = Non-supervisory wage rate. \$/hr.

JOBAL = Number of job categories exposed at or above the AL

SHIFTS = Number of work shifts.

#SAMPS = Number of samples per exposure measurement

SEMI-ANNUALLY = # times per year (semi-annually)

%NOTSEMI = Percent of plants not performing semi-annual monitoring requirements.

%ABOVEAL = Percent of plants that have an employee in at least one job category above the AL.

#PLANTS = Number of plants represented by the model input.

VARIABLES	SIZE	JOBAL	SHIFTS	#SAMPS	SEMI-ANNUALLY	%NOTSEMI	%ABOVEAL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING														
Hard Chrome	Large	1	2	3	2	100%	49.00%	837	2,462	4,924	0.25	1,231	\$32.54	\$ 40,058
	Small	1	1	3	2	100%	49.00%	1,576	2,317	4,633	0.25	1,158	\$32.54	\$ 37,694
Job Shop Chrome Plater	Large	1	2	3	2	100%	11.00%	403	266	533	0.25	133	\$32.54	\$ 4,333
	Small	1	1	3	2	100%	11.00%	759	251	501	0.25	125	\$32.54	\$ 4,076
Captive Shop Chrome Plater	Large	1	2	3	2	100%	14.00%	550	462	924	0.25	231	\$32.54	\$ 7,517
	Small	1	1	3	2	100%	14.00%	1,035	435	870	0.25	217	\$32.54	\$ 7,075
Job Shop Plater	Large	1	2	3	2	100%	10.00%	403	242	484	0.25	121	\$32.54	\$ 3,939
	Small	1	1	3	2	100%	10.00%	759	228	456	0.25	114	\$32.54	\$ 3,706
Captive Shop Plater	Large	1	2	3	2	100%	13.00%	476	372	743	0.25	186	\$32.54	\$ 6,047
	Small	1	1	3	2	100%	13.00%	897	350	700	0.25	175	\$32.54	\$ 5,691
Operator	Large	1	2	3	2	100%	16.00%	837	804	1,608	0.25	402	\$32.54	\$ 13,080
	Small	1	1	3	2	100%	16.00%	1,576	756	1,513	0.25	378	\$32.54	\$ 12,308
SECTOR 2A. WELDING												GENERAL INDUSTRY		
SMAW	Large	1	3	2	2	100%	0.92%	3,676	203	406	0.25	101	\$32.54	\$ 3,302
	Small	1	1	3	2	100%	0.92%	4,120	114	227	0.25	57	\$32.54	\$ 1,850
GMAW	Large	1	3	2	2	100%	0.73%	2,697	118	236	0.25	59	\$32.54	\$ 1,922
	Small	1	1	3	2	100%	0.73%	3,021	66	132	0.25	33	\$32.54	\$ 1,077
TIG	Large	1	3	2	2	100%	0.00%	817	-	-	0.25	-	\$32.54	\$ -
	Small	1	1	3	2	100%	0.00%	915	-	-	0.25	-	\$32.54	\$ -
SAW	Large	0	3	2	2	100%	0.00%	327	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0.00%	366	-	-	0.25	-	\$32.54	\$ -
Plasma Cutting	Large	1	3	2	2	100%	0.00%	81	-	-	0.25	-	\$32.54	\$ -
	Small	1	1	3	2	100%	0.00%	91	-	-	0.25	-	\$32.54	\$ -
Plasma Welding	Large	1	3	2	2	100%	0.00%	81	-	-	0.25	-	\$32.54	\$ -
	Small	1	1	3	2	100%	0.00%	91	-	-	0.25	-	\$32.54	\$ -

Table 9b

VARIABLES	SIZE	JOBAL	SHIFTS	#SAMPs	SEMI-ANNUALLY	%NOTSEMI	%ABOVEAL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Resistance Welding	Large	1	3	2	2	100%	0.00%	490	-	-	0.25	-	\$32.54	\$ -
	Small	1	1	3	2	100%	0.00%	550	-	-	0.25	-	\$32.54	\$ -
MARITIME														
SMAW	Large	1	3	1	2	100%	0.00%	18	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0.00%	10	-	-	0.25	-	\$32.54	\$ -
GMAW	Large	1	3	1	2	100%	0.00%	25	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0.00%	14	-	-	0.25	-	\$32.54	\$ -
TIG	Large	1	3	1	2	100%	0.00%	6	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0.00%	3	-	-	0.25	-	\$32.54	\$ -
FCAW	Large	1	3	1	2	100%	0.00%	121	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0.00%	68	-	-	0.25	-	\$32.54	\$ -
Plasma Cutting	Large	1	3	1	2	100%	0.00%	4	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0.00%	2	-	-	0.25	-	\$32.54	\$ -
Plasma Welding	Large	1	3	1	2	100%	0.00%	2	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0.00%	1	-	-	0.25	-	\$32.54	\$ -
Oxy-fuel Cutting	Large	1	3	1	2	100%	0.00%	4	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0.00%	2	-	-	0.25	-	\$32.54	\$ -
Air Carbon Arc Cutting	Large	1	3	1	2	100%	0.00%	2	-	-	0.25	-	\$32.54	\$ -
	Small	1	2	1	2	100%	0.00%	1	-	-	0.25	-	\$32.54	\$ -
Electric Torch Cutting	Large	0	3	1	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
Thermal Spray Tungsten Cutting	Large	0	3	1	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
SAW	Large	0	3	1	2	100%	0.00%	16	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	9	-	-	0.25	-	\$32.54	\$ -
CONSTRUCTION														
SMAW	Large	1	3	1	2	100%	0.00%	209	-	-	0.25	-	\$32.54	\$ -
	Small	1	1	1	2	100%	0.00%	1,673	-	-	0.25	-	\$32.54	\$ -
Plasma Cutting	Large	0	3	1	2	100%	0.00%	3	-	-	0.25	-	\$32.54	\$ -
	Small	1	1	1	2	100%	0.00%	22	-	-	0.25	-	\$32.54	\$ -
GMAW	Large	1	3	1	2	100%	0.00%	42	-	-	0.25	-	\$32.54	\$ -
	Small	1	1	1	2	100%	0.00%	335	-	-	0.25	-	\$32.54	\$ -
Brazing	State	1	3	1	2	100%	0.00%	21	-	-	0.25	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0.00%	168	-	-	0.25	-	\$32.54	\$ -
Metallizing	State	1	3	1	2	100%	0.00%	4	-	-	0.25	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0.00%	33	-	-	0.25	-	\$32.54	\$ -
GOVERNMENT														

Table 9b

VARIABLES	SIZE	JOBAL	SHIFTS	#SAMPS	SEMI-ANNUALLY	%NOTSEMI	%ABOVEAL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SMAW	State	1	1	1	2	100%	0.00%	20	-	-	0.25	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0.00%	614	-	-	0.25	-	\$32.54	\$ -
Plasma Cutting	State	1	1	1	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0.00%	8	-	-	0.25	-	\$32.54	\$ -
GMAW	State	1	1	1	2	100%	0.00%	4	-	-	0.25	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0.00%	123	-	-	0.25	-	\$32.54	\$ -
Brazing	State	1	1	1	2	100%	0.00%	2	-	-	0.25	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0.00%	61	-	-	0.25	-	\$32.54	\$ -
Metallizing	State	1	1	1	2	100%	0.00%	1	-	-	0.25	-	\$32.54	\$ -
	Local	1	1	1	2	100%	0.00%	12	-	-	0.25	-	\$32.54	\$ -
SECTOR 2B. MILD STEEL WELDING														
GENERAL INDUSTRY														
SMAW	Large	0	3	2	2	100%	0.00%	4,929	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0.00%	5,019	-	-	0.25	-	\$32.54	\$ -
GMAW	Large	0	3	2	2	100%	0.00%	3,615	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0.00%	3,680	-	-	0.25	-	\$32.54	\$ -
TIG	Large	0	3	2	2	100%	0.00%	1,095	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0.00%	1,115	-	-	0.25	-	\$32.54	\$ -
SAW	Large	0	3	2	2	100%	0.00%	438	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0.00%	446	-	-	0.25	-	\$32.54	\$ -
Plasma Cutting	Large	0	3	2	2	100%	0.00%	110	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0.00%	112	-	-	0.25	-	\$32.54	\$ -
Plasma Welding	Large	0	3	2	2	100%	0.00%	110	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0.00%	112	-	-	0.25	-	\$32.54	\$ -
Resistance Welding	Large	0	3	2	2	100%	0.00%	657	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0.00%	669	-	-	0.25	-	\$32.54	\$ -
MARITIME														
SMAW	Large	0	3	1	2	100%	0.00%	38	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	22	-	-	0.25	-	\$32.54	\$ -
GMAW	Large	0	3	1	2	100%	0.00%	55	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	31	-	-	0.25	-	\$32.54	\$ -
TIG	Large	0	3	1	2	100%	0.00%	13	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	7	-	-	0.25	-	\$32.54	\$ -
FCAW	Large	0	3	1	2	100%	0.00%	259	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	147	-	-	0.25	-	\$32.54	\$ -
Plasma Cutting	Large	0	3	1	2	100%	0.00%	8	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	5	-	-	0.25	-	\$32.54	\$ -
	Large	0	3	1	2	100%	0.00%	3	-	-	0.25	-	\$32.54	\$ -

Table 9b

VARIABLES	SIZE	JOBAL	SHIFTS	#SAMPs	SEMI-ANNUALLY	%NOTSEMI	%ABOVEAL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Plasma Welding	Small	0	2	1	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
Oxy-fuel Cutting	Large	0	3	1	2	100%	0.00%	8	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
Air Carbon Arc Cutting	Large	0	3	1	2	100%	0.00%	3	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	2	-	-	0.25	-	\$32.54	\$ -
Electric Torch Cutting	Large	0	3	1	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
Thermal Spray Tungsten Cutting	Large	0	3	1	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
SAW	Large	0	3	1	2	100%	0.00%	34	-	-	0.25	-	\$32.54	\$ -
	Small	0	2	1	2	100%	0.00%	19	-	-	0.25	-	\$32.54	\$ -
CONSTRUCTION														
SMAW	Large	0	3	1	2	100%	0.00%	313	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0.00%	2,368	-	-	0.25	-	\$32.54	\$ -
Plasma Cutting	Large	0	3	1	2	100%	0.00%	4	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0.00%	31	-	-	0.25	-	\$32.54	\$ -
GMAW	Large	0	3	1	2	100%	0.00%	62	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0.00%	473	-	-	0.25	-	\$32.54	\$ -
Brazing	Large	0	3	1	2	100%	0.00%	31	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0.00%	237	-	-	0.25	-	\$32.54	\$ -
Metallizing	Large	0	3	1	2	100%	0.00%	6	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0.00%	47	-	-	0.25	-	\$32.54	\$ -
SECTOR 3. PAINTING														
GENERAL INDUSTRY														
Aerospace	Large	1	3	3	2	100%	28.00%	50	125	250	0.25	62	\$32.54	\$ 2,032
	Small	1	1	3	2	100%	9.00%	62	17	34	0.25	8	\$32.54	\$ 274
General Industry (Autobody)	Large	1	1	1	2	100%	5.00%	330	17	33	0.25	8	\$32.54	\$ 269
	Small	1	1	1	2	100%	5.00%	1,454	73	145	0.25	36	\$32.54	\$ 1,183
General Industry (Coil Coating)	Large	1	2	3	2	100%	8.00%	101	48	97	0.25	24	\$32.54	\$ 788
	Small	1	1	3	2	100%	8.00%	18	4	9	0.25	2	\$32.54	\$ 72
Maritime	Large	2	3	1	2	100%	36.00%	274	593	1,185	0.25	296	\$32.54	\$ 9,644
	Small	0	1	1	2	100%	36.00%	474	-	-	0.25	-	\$32.54	\$ -
Construction	Large	1	3	1	2	100%	22.00%	789	521	1,042	0.25	261	\$32.54	\$ 8,478
	Small	1	1	1	2	100%	22.00%	4,197	923	1,847	0.25	462	\$32.54	\$ 15,023
Government	State	1	3	1	2	100%	12.00%	17	6	12	0.25	3	\$32.54	\$ 100
	Local	1	1	1	2	100%	12.00%	945	113	227	0.25	57	\$32.54	\$ 1,845
SECTOR 4. PRODUCERS OF CHROMATES														
	Large	3	3	3	2	100%	45.00%	2	23	45	0.25	11	\$32.54	\$ 368

Table 9b

VARIABLES	SIZE	JOBAL	SHIFTS	#SAMPs	SEMI-ANNUALLY	%NOTSEMI	%ABOVEAL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
All	Small	0	1	3	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES														
All	Large	5	2	3	2	100%	71.00%	2	35	71	0.25	18	\$32.54	\$ 577
	Small	1	1	3	2	100%	50.00%	1	1	2	0.25	1	\$32.54	\$ 20
SECTOR 6. CCA PRODUCERS														
All	Large	1	3	3	2	100%	33.00%	3	8	15	0.25	4	\$32.54	\$ 125
	Small	0	3	0	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS														
ALL	Large	6	3	3	2	100%	100.00%	5	251	503	0.25	126	\$32.54	\$ 4,091
	Small	0	1	3	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS														
ALL	Large	1	2	3	2	100%	13.00%	78	61	122	0.25	31	\$32.54	\$ 993
	Small	1	2	3	2	100%	13.00%	123	96	192	0.25	48	\$32.54	\$ 1,560
SECTOR 9. PRINTING INK PRODUCERS														
All	Large	3	1	9	2	100%	69.00%	2	41	83	0.25	21	\$32.54	\$ 672
	Small	2	1	5	2	100%	69.00%	7	51	102	0.25	25	\$32.54	\$ 829
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS														
All	Large	2	3	3	2	100%	51.00%	79	727	1,454	0.25	363	\$32.54	\$ 11,827
	Small	2	1	3	2	100%	51.00%	39	119	237	0.25	59	\$32.54	\$ 1,928
SECTOR 11. PLATING MIXTURE PRODUCERS														
All	Large	1	1	3	2	100%	100.00%	6	18	36	0.25	9	\$32.54	\$ 289
	Small	1	1	3	2	100%	100.00%	4	12	24	0.25	6	\$32.54	\$ 193
SECTOR 13. CHROMIUM METAL PRODUCERS														
All	Large	2	3	3	2	100%	100.00%	1	19	37	0.25	9	\$32.54	\$ 304
	Small	0	1	1	2	0%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS														
Alloy and Stainless Steel	Large	3	3	3	2	100%	38.00%	39	397	795	0.25	199	\$32.54	\$ 6,464
	Small	1	1	3	2	100%	38.00%	12	14	28	0.25	7	\$32.54	\$ 230
Carbon Steel	Large	0	3	3	2	100%	0.00%	116	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0.00%	37	-	-	0.25	-	\$32.54	\$ -
SECTOR 14.B FORGING INDUSTRY														
Reshaping	Large	4	1	3	2	100%	63.00%	33	251	502	0.25	126	\$32.54	\$ 4,084
	Small	2	1	3	2	100%	63.00%	31	118	237	0.25	59	\$32.54	\$ 1,924
SECTOR 15. IRON AND STEEL FOUNDRIES														
All	Large	6	3	5	2	100%	100.00%	152	13,694	27,387	0.25	6,847	\$32.54	\$ 222,805
	Small	5	1	5	2	100%	100.00%	111	2,766	5,533	0.25	1,383	\$32.54	\$ 45,011
SECTOR 17. CHROMIUM DYE PRODUCERS														
All	Large	6	1	21	2	100%	38.00%	2	120	239	0.25	60	\$32.54	\$ 1,947
	Small	6	1	7	2	100%	38.00%	1	13	27	0.25	7	\$32.54	\$ 216
SECTOR 18. CHROMIUM SULFATE PRODUCERS														

Table 9b

VARIABLES	SIZE	JOBAL	SHIFTS	#SAMPS	SEMI-ANNUALLY	%NOTSEMI	%ABOVEAL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
All	Large	0	1	3	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
	Small	1	1	3	2	100%	27.00%	5	4	8	0.25	2	\$32.54	\$ 61
SECTOR 19. CHEMICAL DISTRIBUTORS														
All	Large	0	1	3	2	100%	0.00%	212	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0.00%	1,600	-	-	0.25	-	\$32.54	\$ -
SECTOR 20. TEXTILE DYEING														
All	Large	0	3	3	2	100%	0.00%	307	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	2	2	100%	0.00%	623	-	-	0.25	-	\$32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS														
General Industry	Large	1	3	12	2	100%	25.00%	8	70	139	0.25	35	\$32.54	\$ 1,133
	Small	0	1	4	2	100%	0.00%	24	-	-	0.25	-	\$32.54	\$ -
Fiber, Flat, Container Glass	Large	3	1	1	2	100%	20.00%	111	67	133	0.25	33	\$32.54	\$ 1,082
	Small	0	1	1	2	100%	0.00%	6	-	-	0.25	-	\$32.54	\$ -
SECTOR 22. PRINTING														
All	Large	0	3	2	2	100%	0.00%	78	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	2	2	100%	0.00%	312	-	-	0.25	-	\$32.54	\$ -
SECTOR 24. CHROMIUM CATALYST USERS														
Catalyst Users	Large	2	3	3	2	100%	9.00%	193	312	624	0.25	156	\$32.54	\$ 5,075
	Small	0	1	3	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
Chromium Catalyst Service Companies	Large	0	3	3	2	100%	0.00%	25	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0.00%	5	-	-	0.25	-	\$32.54	\$ -
SECTOR 25. REFRACTORY BRICK PRODUCERS														
All	Large	0	1	15	2	100%	0.00%	5	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	0	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 26. WOODWORKING														
General Industry	Large	0	1	2	2	100%	0.00%	143	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	2	2	100%	0.00%	76	-	-	0.25	-	\$32.54	\$ -
Maritime	Large	0	1	1	2	100%	0.00%	36	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0.00%	32	-	-	0.25	-	\$32.54	\$ -
Construction	Large	1	1	1	2	100%	22.00%	1,232	271	542	0.25	136	\$32.54	\$ 4,411
	Small	1	1	1	2	100%	22.00%	4,932	1,085	2,170	0.25	543	\$32.54	\$ 17,656
Government	State	1	1	1	2	100%	22.00%	17	4	8	0.25	2	\$32.54	\$ 61
	Local	1	1	1	2	100%	22.00%	62	14	27	0.25	7	\$32.54	\$ 221
SECTOR 27. SOLID WASTER INCINERATION														
General Industry	Large	0	3	15	2	100%	0.00%	39	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	3	2	100%	0.00%	47	-	-	0.25	-	\$32.54	\$ -
Government	State	0	3	15	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
	Local	0	1	3	2	100%	0.00%	24	-	-	0.25	-	\$32.54	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS														

Table 9b

VARIABLES	SIZE	JOBAL	SHIFTS	#SAMPs	SEMI-ANNUALLY	%NOTSEMI	%ABOVEAL	#PLANTS	RESPONDENTS	RESPONSES	NOTETIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
All	Large	0	3	3	2	100%	0.00%	18	-	-	0.25	-	\$32.54	\$ -
	Small	0	3	3	2	100%	0.00%	0	-	-	0.25	-	\$32.54	\$ -
SECTOR 31. CONSTRUCTION														
Industrial Rehabilitation	Large	0	1	1	2	100%	0.00%	54	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0.00%	247	-	-	0.25	-	\$32.54	\$ -
	State	0	1	1	2	100%	0.00%	16	-	-	0.25	-	\$32.54	\$ -
	Local	0	1	1	2	100%	0.00%	93	-	-	0.25	-	\$32.54	\$ -
Hazardous Waste-site Work	Large	0	1	1	2	100%	0.00%	43	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	1	2	100%	0.00%	180	-	-	0.25	-	\$32.54	\$ -
	State	0	1	1	2	100%	0.00%	1	-	-	0.25	-	\$32.54	\$ -
	Local	0	1	1	2	100%	0.00%	252	-	-	0.25	-	\$32.54	\$ -
Refractory Brick Restoration	Large	0	1	1	2	100%	60.00%	47	-	-	0.25	-	\$32.54	\$ -
	Small	0	1	1	2	100%	60.00%	185	-	-	0.25	-	\$32.54	\$ -
Average/Total		2							32,546	65,092	0.25	16,273	\$32.54	\$ 529,523

Table 10

TABLE 10: Respiratory-Protection Program: Qualitative Fit Testing for Respirator Use (§§ 1910.1026(g)(2), 1915.1026(f)(2), and 1926.1126(f)(2)); Employee and Industrial Hygiene Technician Time and Cost to Conduct Qualitative Fit Testing

This table calculates the burden hours and cost of employee and industrial hygienist time to conduct fit-testing. The time, in hours, for an employee to be qualitative fit-tested is multiplied by the number of employees that require fit -testing and by the nonsupervisory wage rate.

$$\text{BURDEN HOURS} = (\text{QLFITIME} + \text{QLFITTECH}) * \text{QLFITEMP} * 1\text{-}\% \text{FITBASE} * \text{\#PLANTS}$$

$$\text{COST} = \text{BURDEN HOURS} * \text{NONSUPEWAGE}$$

Variables:

QLFITIME = Time, in hours, for an employee to be qualitative fit-tested

QLFITTECH = Time, in hours, for a technician to conduct one qualitative fit test

QLFITEMP = Number of employees requiring annual qualitative fit-testing

1-%FITBASE = (%FITBASE is the percent of plants conducting annual respirator fit-testing in the baseline)

NONSUPEWAGE = Non-Supervisory wage rate

\#PLANTS = Number of plants represented by the model input

VARIABLES	SIZE	QLFITEMP	1-%FITBASE	\#PLANTS	RESPONDENTS	RESPONSES	QLFITIME	QLFITTECH	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING											
All	Large	5,063	71%	1	3,595	3,595	0.25	0.25	1,797	\$32.54	\$ 58,490
	Small	1,104	97%	1	1,071	1,071	0.25	0.25	535	\$32.54	\$ 17,422
SECTOR 2A. WELDING											
General Industry	Large	2,968	81%	1	2,404	2,404	0.25	0.25	1,202	\$32.54	\$ 39,117
	Small	2,170	98%	1	2,127	2,127	0.25	0.25	1,063	\$32.54	\$ 34,606
Maritime	Large	2,422	55%	1	1,332	1,332	0.25	0.25	666	\$32.54	\$ 21,678
	Small	57	95%	1	54	54	0.25	0.25	27	\$32.54	\$ 885
Construction	Large	3,354	88%	1	2,951	2,951	0.25	0.25	1,476	\$32.54	\$ 48,022
	Small	2,593	99%	1	2,567	2,567	0.25	0.25	1,284	\$32.54	\$ 41,773
Government	State	15	88%	1	13	13	0.25	0.25	7	\$32.54	\$ 216
	Local	76	99%	1	76	76	0.25	0.25	38	\$32.54	\$ 1,230
SECTOR 2B. MILD STEEL WELDING											
General Industry	Large	718	81%	1	582	582	0.25	0.25	291	\$32.54	\$ 9,468
	Small	2,170	98%	1	2,127	2,127	0.25	0.25	1,063	\$32.54	\$ 34,606
Maritime	Large	17	55%	1	9	9	0.25	0.25	5	\$32.54	\$ 153
	Small	0	95%	1	-	-	0.25	0.25	-	\$32.54	\$ -
Construction	Large	684	88%	1	602	602	0.25	0.25	301	\$32.54	\$ 9,797
	Small	551	99%	1	545	545	0.25	0.25	273	\$32.54	\$ 8,869
Government	State	15	88%	1	13	13	0.25	0.25	7	\$32.54	\$ 216
	Local	76	99%	1	76	76	0.25	0.25	38	\$32.54	\$ 1,230
SECTOR 3. PAINTING											
General Industry (Average)	Large	46	81%	50	1,841	1,841	0.25	0.25	921	\$32.54	\$ 29,962

Table 10

VARIABLES	SIZE	QLFITMP	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	QLFITIME	QLFITTECH	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
(Aerospace)	Small	0	98%	62	8	8	0.25	0.25	4	\$32.54	\$ 128
General Industry (Auto Body Repair)	Large	1	81%	330	246	246	0.25	0.25	123	\$32.54	\$ 3,995
	Small	0	98%	1,454	301	301	0.25	0.25	150	\$32.54	\$ 4,894
Coil Coating	Large	2	81%	101	150	150	0.25	0.25	75	\$32.54	\$ 2,441
	Small	1	98%	18	17	17	0.25	0.25	8	\$32.54	\$ 269
Maritime	Large	3	55%	274	409	409	0.25	0.25	205	\$32.54	\$ 6,655
	Small	1	95%	474	424	424	0.25	0.25	212	\$32.54	\$ 6,896
Construction	Large	486	0%	1	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	612	0%	1	-	-	0.25	0.25	-	\$32.54	\$ -
	State	45	0%	1	-	-	0.25	0.25	-	\$32.54	\$ -
	Local	195	0%	1	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 4. PRODUCERS OF CHROMATES											
All	Large	7	37%	2	5	5	0.25	0.25	2	\$32.54	\$ 78
	Small	0	93%	0	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES											
All	Large	7	37%	2	4	4	0.25	0.25	2	\$32.54	\$ 70
	Small	1	93%	1	1	1	0.25	0.25	0	\$32.54	\$ 13
SECTOR 6. CCA PRODUCERS											
All	Large	2	37%	3	2	2	0.25	0.25	1	\$32.54	\$ 31
	Small	0	93%	0	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS											
All	Large	11	37%	5	19	19	0.25	0.25	9	\$32.54	\$ 308
	Small	0	93%	0	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS											
All	Large	1	37%	78	29	29	0.25	0.25	14	\$32.54	\$ 471
	Small	0	93%	123	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 9. PRINTING INK PRODUCERS											
All	Large	9	37%	2	7	7	0.25	0.25	4	\$32.54	\$ 120
	Small	2	93%	7	14	14	0.25	0.25	7	\$32.54	\$ 224
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS											
All	Large	332	54%	1	179	179	0.25	0.25	90	\$32.54	\$ 2,919
	Small	34	95%	1	32	32	0.25	0.25	16	\$32.54	\$ 519
SECTOR 11. PLATING MIXTURE PRODUCERS											
All	Large	3	37%	6	7	7	0.25	0.25	3	\$32.54	\$ 107
	Small	1	93%	4	4	4	0.25	0.25	2	\$32.54	\$ 60
SECTOR 13. CHROMIUM METAL PRODUCERS											
	Large	8	56%	1	5	5	0.25	0.25	2	\$32.54	\$ 76

Table 10

VARIABLES	SIZE	QLFITMP	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	QLFITIME	QLFITTECH	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
All	Small	0	95%	0	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS											
Alloy and Stainless Steel	Large	31	56%	39	672	672	0.25	0.25	336	\$32.54	\$ 10,937
	Small	1	95%	12	12	12	0.25	0.25	6	\$32.54	\$ 192
Carbon Steel	Large	1	56%	116	65	65	0.25	0.25	33	\$32.54	\$ 1,058
	Small	1	95%	37	35	35	0.25	0.25	17	\$32.54	\$ 565
SECTOR 14.B FORGING INDUSTRY											
Reshaping Industry	Large	3	56%	33	56	56	0.25	0.25	28	\$32.54	\$ 908
	Small	1	95%	31	30	30	0.25	0.25	15	\$32.54	\$ 484
SECTOR 15. IRON AND STEEL FOUNDRIES											
All	Large	16	56%	152	1,363	1,363	0.25	0.25	682	\$32.54	\$ 22,181
	Small	4	95%	111	420	420	0.25	0.25	210	\$32.54	\$ 6,842
SECTOR 17. CHROMIUM DYE PRODUCERS											
All	Large	27	37%	2	25	25	0.25	0.25	12	\$32.54	\$ 406
	Small	6	93%	1	5	5	0.25	0.25	2	\$32.54	\$ 76
SECTOR 18. CHROMIUM SULFATE PRODUCERS											
All	Large	0	37%	-	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	93%	5	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 19. CHEMICAL DISTRIBUTORS											
All	Large	0	92%	212	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	99%	1,600	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 20. TEXTILE DYEING											
All	Large	0	89%	307	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	99%	623	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS											
General Industry	Large	1	76%	8	6	6	0.25	0.25	3	\$32.54	\$ 96
	Small	0	97%	24	-	-	0.25	0.25	-	\$32.54	\$ -
Fiber, Flat, and Container Glass	Large	12	76%	111	1,011	1,011	0.25	0.25	506	\$32.54	\$ 16,451
	Small	3	97%	6	19	19	0.25	0.25	9	\$32.54	\$ 305
SECTOR 22. PRINTING											
All	Large	0	98%	78	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	99.70%	312	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 24. CHROMIUM CATALYST USERS											
Chromium Catalyst Users	Large	1	67%	1	1	1	0.25	0.25	0.3	\$32.54	\$ 11
	Small	0	97%	-	-	-	0.25	0.25	-	\$32.54	\$ -
Catalyst Service Companies	Large	0	0%	1	-	-	0.25	0.25	-	\$32.54	\$ -

Table 10

VARIABLES	SIZE	QLFITMP	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	QLFITIME	QLFITTECH	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Companies	Small	0	0%	1	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 25. REFRACTORY BRICK PRODUCERS											
ALL	Large	0	76%	5	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	97%	0	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 26. WOODWORKING											
General Industry	Large	0	94%	1	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	99%	1	-	-	0.25	0.25	-	\$32.54	\$ -
Maritime	Large	0	55%	36	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	95%	32	-	-	0.25	0.25	-	\$32.54	\$ -
Construction	Large	0	88%	1	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	99%	1	-	-	0.25	0.25	-	\$32.54	\$ -
Government	State	0	88%	1	-	-	0.25	0.25	-	\$32.54	\$ -
	Local	0	88%	1	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 27. SOLID WASTER INCINERATION											
All	Large	5	59%	39	116	116	0.25	0.25	58	\$32.54	\$ 1,893
	Small	1	96%	47	45	45	0.25	0.25	23	\$32.54	\$ 739
Government	State	0	59%	0	-	-	0.25	0.25	-	\$32.54	\$ -
	Local	0	96%	24	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS											
All	Large	0	56%	18	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	95%	0	-	-	0.25	0.25	-	\$32.54	\$ -
SECTOR 31. CONSTRUCTION											
Industrial Rehabilitation and Maintenance	Large	0	88%	54	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	99%	247	-	-	0.25	0.25	-	\$32.54	\$ -
	State	0	88%	16	-	-	0.25	0.25	-	\$32.54	\$ -
	Local	0	88%	93	-	-	0.25	0.25	-	\$32.54	\$ -
Hazardous Waste-Site Work	Large	0	88%	1	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	99%	1	-	-	0.25	0.25	-	\$32.54	\$ -
	State	0	88%	1	-	-	0.25	0.25	-	\$32.54	\$ -
	Local	0	88%	1	-	-	0.25	0.25	-	\$32.54	\$ -
Refractory Brick Restoration	Large	0	88%	47	-	-	0.25	0.25	-	\$32.54	\$ -
	Small	0	99%	185	-	-	0.25	0.25	-	\$32.54	\$ -
Average/Total				7,697	27,728	27,728	0.25	0.25	13,864	\$32.54	\$ 451,135

Table 11

Respiratory-Protection Program: Cost of Materials for Qualitative Fit Testing

This table calculates the contract cost of the materials used for qualitative fit-testing by multiplying the number of employees who require qualitative fit-testing by the cost of materials per fit-test.

$$\text{COST} = ((\text{QLFITMTRLS} * \text{QLFITEMP}) * 1\text{-}\% \text{FITBASE} * \# \text{PLANTS})$$

Variables:

QLFITMTRLS = Cost of materials per qualitative fit-testing

QLFITEMP = Number of employees requiring annual qualitative fit-testing

1- %FITBASE = (%FITBASE is the percent of plants conducting annual respirator fit-testing in the baseline)

#PLANTS = Number of plants represented by the model input

		\$ -				
Variables	Size	QLFITMTRLS	QLFITEMP	1-%FITBASE	#PLANTS	Item 13 Cost
SECTOR 1. ELECTROPLATING						
ALL	Large	\$ 0.10	5,063	71%	1	\$352
	Small	\$ 0.10	1,104	97%	1	\$105
SECTOR 2A. WELDING						
GENERAL INDUSTRY	Large	\$ 0.10	2,968	81%	1	\$235
	Small	\$ 0.10	2,170	98%	1	\$208
MARITIME	Large	\$ 0.10	2,422	55%	1	\$130
	Small	\$ 0.10	57	95%	1	\$5
CONSTRUCTION	Large	\$ 0.10	3,354	88%	1	\$289
	Small	\$ 0.10	2,593	99%	1	\$251
GOVERNMENT	State	\$ 0.10	15	88%	1	\$1
	Local	\$ 0.10	76	99%	1	\$7
SECTOR 2B. MILD STEEL WELDING						
GENERAL INDUSTRY	Large	\$ 0.10	718	81%	1	\$57
	Small	\$ 0.10	2,170	98%	1	\$208
MARITIME	Large	\$ 0.10	17	55%	1	\$1
	Small	\$ 0.10	0	95%	1	\$0
CONSTRUCTION	Large	\$ 0.10	684	88%	1	\$59
	Small	\$ 0.10	551	99%	1	\$53
GOVERNMENT	State	\$ 0.10	15	88%	1	\$1
	Local	\$ 0.10	76	99%	1	\$7
SECTOR 3. PAINTING						
GENERAL INDUSTRY (AEROSPACE)	Large	\$ 0.10	46	81%	50	\$180
	Small	\$ 0.10	0	98%	62	\$1

Table 11

Variables	Size	QLFITMTRLS	QLFITMP	1-%FITBASE	#PLANTS	Item 13 Cost
GENERAL INDUSTRY (AUTO BODY REPAIR)	Large	\$ 0.10	1	81%	330	\$24
	Small	\$ 0.10	0	98%	1,454	\$29
COIL COATING	Large	\$ 0.10	2	81%	101	\$15
	Small	\$ 0.10	1	98%	18	\$2
MARITIME	Large	\$ 0.10	3	55%	274	\$40
	Small	\$ 0.10	1	95%	474	\$41
CONSTRUCTION	Large	\$ 0.10	486	0%	1	\$0.00
	Small	\$ 0.10	612	0%	1	\$0.00
	State	\$ 0.10	45	0%	1	\$0.00
	Local	\$ 0.10	195	0%	1	\$0.00
SECTOR 4. PRODUCERS OF CHROMATES						
ALL	Large	\$ 0.10	7	37%	2	\$0.47
	Small	\$ 0.10	0	93%	0	\$0.00
SECTOR 5. CHROMATE PIGMENT PROCEDURES						
ALL	Large	\$ 0.10	7	37%	2	\$0.42
	Small	\$ 0.10	1	93%	1	\$0.08
SECTOR 6. CCA PRODUCERS						
ALL	Large	\$ 0.10	2	37%	3	\$0.19
	Small	\$ 0.10	0	93%	0	\$0.00
SECTOR 7. CHROMIUM CATALYST PRODUCERS						
ALL	Large	\$ 0.10	11	37%	5	\$2
	Small	\$ 0.10	0	93%	0	\$0
SECTOR 8. PAINT AND COATING PRODUCERS						
ALL	Large	\$ 0.10	1	37%	78	\$3
	Small	\$ 0.10	0	93%	123	\$0
SECTOR 9. PRINTING INK PRODUCERS						
ALL	Large	\$ 0.10	9	37%	2	\$1
	Small	\$ 0.10	2	93%	7	\$1
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS						
ALL	Large	\$ 0.10	332	54%	1	\$18
	Small	\$ 0.10	34	95%	1	\$3
SECTOR 11. PLATING MIXTURE PRODUCERS						
ALL	Large	\$ 0.10	3	37%	6	\$1
	Small	\$ 0.10	1	93%	4	\$0

Table 11

Variables	Size	QLFITMTRL	QLFITMP	1-%FITBASE	#PLANTS	Item 13 Cost
SECTOR 13. CHROMIUM METAL PRODUCERS						
ALL	Large	\$ 0.10	8	56%	1	\$0
	Small	\$ 0.10	0	95%	0	\$0
SECTOR 14. IRON AND STEEL MILLS						
ALLOY AND STAINLESS STEEL	Large	\$ 0.10	31	56%	39	\$66
	Small	\$ 0.10	1	95%	12	\$1
CARBON STEEL	Large	\$ 0.10	1	56%	116	\$6
	Small	\$ 0.10	1	95%	37	\$3
SECTOR 14.B FORGING INDUSTRY						
RESHAPING INDUSTRY	Large	\$ 0.10	3	56%	33	\$5
	Small	\$ 0.10	1	95%	31	\$3
SECTOR 15. IRON AND STEEL FOUNDRIES						
ALL	Large	\$ 0.10	16	56%	152	\$133
	Small	\$ 0.10	4	95%	111	\$41
SECTOR 17. CHROMIUM DYE PRODUCERS						
ALL	Large	\$ 0.10	27	37%	2	\$2
	Small	\$ 0.10	6	93%	1	\$0
SECTOR 18. CHROMIUM SULFATE PRODUCERS						
ALL	Large	\$ 0.10	0	37%	0	\$0
	Small	\$ 0.10	0	93%	5	\$0
SECTOR 19. CHEMICAL DISTRIBUTORS						
ALL	Large	\$ 0.10	0	92%	212	\$0
	Small	\$ 0.10	0	99%	1,600	\$0
SECTOR 20. TEXTILE DYEING						
ALL	Large	\$ 0.10	0	89%	307	\$0
	Small	\$ 0.10	0	99%	623	\$0
SECTOR 21. COLORED GLASS PRODUCERS						
GENERAL INDUSTRY	Large	\$ 0.10	1	76%	8	\$1
	Small	\$ 0.10	0	97%	24	\$0
FIBER, FLAT AND CONTAINER GLASS	Large	\$ 0.10	12	76%	111	\$99
	Small	\$ 0.10	3	97%	6	\$2
SECTOR 22. PRINTING						
ALL	Large	\$ 0.10	0	98%	78	\$0
	Small	\$ 0.10	0	100%	312	\$0
SECTOR 24. CHROMIUM CATALYST USERS						

Table 11

Variables	Size	QLFITMTRL	QLFITMP	1-%FITBASE	#PLANTS	Item 13 Cost
CHROMIUM CATALYST USERS	Large	\$ 0.10	1	67%	1	\$0
	Small	\$ 0.10	0	97%	0	\$0
CHROMIUM CATALYST COMPANIES	Large	\$ 0.10	0	67%	1	\$0
	Small	\$ 0.10	0	97%	1	\$0
SECTOR 25. REFRACTORY BRICK PRODUCERS						
ALL	Large	\$ 0.10	0	76%	5	\$0
	Small	\$ 0.10	0	97%	0	\$0
SECTOR 26. WOODWORKING						
GENERAL INDUSTRY	Large	\$ 0.10	0	94%	1	\$0
	Small	\$ 0.10	0	99%	1	\$0
MARITIME	Large	\$ 0.10	0	55%	36	\$0
	Small	\$ 0.10	0	95%	32	\$0
CONSTRUCTION	Large	\$ 0.10	0	88%	1	\$0
	Small	\$ 0.10	0	99%	1	\$0
GOVERNMENT	State	\$ 0.10	0	88%	1	\$0
	Local	\$ 0.10	0	88%	1	\$0
SECTOR 27. SOLID WASTER INCINERATION						
ALL	Large	\$ 0.10	5	59%	39	\$11
	Small	\$ 0.10	1	96%	47	\$4
GOVERNMENT	State	\$ 0.10	0	59%	0	\$0
	Local	\$ 0.10	0	96%	24	\$0
SECTOR 30. SUPERALLOY PRODUCERS AND USERS						
ALL	Large	\$ 0.10	0	56%	18	\$0
	Small	\$ 0.10	0	95%	0	\$0
SECTOR 31. CONSTRUCTION						
INDUSTRIAL REHABILITATION AND MAINTENANCE	Large	\$ 0.10	0	88%	54	\$0
	Small	\$ 0.10	0	99%	247	\$0
	State	\$ 0.10	0	88%	16	\$0
	Local	\$ 0.10	0	88%	93	\$0
HAZARDOUS WASTE-SITE WORK	Large	\$ 0.10	0	88%	1	\$0
	Small	\$ 0.10	0	99%	1	\$0
	State	\$ 0.10	0	88%	1	\$0
	Local	\$ 0.10	0	88%	1	\$0

Table 11

Variables	Size	QLFITMTRL	QLFITMP	1-%FITBASE	#PLANTS	Item 13 Cost
REFRACTORY BRICK RESTORATION	Large	\$ 0.10	0	88%	47	\$0
	Small	\$ 0.10	0	99%	185	\$0
Total					7,697	\$ 2,714

Table 12

TABLE 12: Respirator Protection Program: Quantitative Fit Testing for Respirator Use (§§ 1910.1026(g)(2), 1915.1026(f)(2), and 1926.1126(f)(2)); Employee Time and Cost to Conduct Quantitative Fit Testing

This table calculates the burden hour and cost of employee time to be fit-tested. The time, in hours, for an employee to be quantitative fit-tested is multiplied by the number of employees that require fit -testing and by the nonsupervisory wage rate.

$$\text{BURDEN HOURS} = (\text{QNFFITTIME} + \text{QNFFITTEMP}) * 1\text{-}\% \text{FITBASE} * \# \text{PLANTS}$$

$$\text{COST} = \text{BURDEN HOURS} * \text{NONSUPWAGE}$$

Variables:

QNFFITTIME = Time, in hours, for an employee to be quantitative fit-tested

QNFFITTEMP = Number of employees requiring annual quantitative fit-testing

1- %FITBASE = (%FITBASE is the percent of plants conducting annual respirator fit-testing in the baseline)

#PLANTS = Number of plants represented by the model input

NONSUPEWAGE = Non-Supervisory wage rate

VARIABLES	SIZE	QNFFITTEMP	1- %FITBASE	#PLANTS	RESPONDENTS	RESPONSES	QNFFITTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING										
All	Large	0	71%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	97%	1	-	-	0.5	-	\$32.54	\$ -
SECTOR 2A. WELDING										
General Industry	Large	0	81%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	98%	1	-	-	0.5	-	\$32.54	\$ -
Maritime	Large	0	55%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	95%	1	-	-	0.5	-	\$32.54	\$ -
Construction	Large	0	88%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	99%	1	-	-	0.5	-	\$32.54	\$ -
Government	State	0	88%	1	-	-	0.5	-	\$32.54	\$ -
	Local	0	99%	1	-	-	0.5	-	\$32.54	\$ -
SECTOR 2B. MILD STEEL WELDING										
General Industry	Large	0	81%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	98%	1	-	-	0.5	-	\$32.54	\$ -
Maritime	Large	0	55%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	95%	1	-	-	0.5	-	\$32.54	\$ -
Construction	Large	0	82%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	99%	1	-	-	0.5	-	\$32.54	\$ -
SECTOR 3. PAINTING										
General Industry (Aerospace)	Large	0	81%	50	-	-	0.5	-	\$32.54	\$ -
	Small	0	98%	62	-	-	0.5	-	\$32.54	\$ -

Table 12

VARIABLES	SIZE	QNFTEMP	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	QNFITTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
General Industry (Autobody Repair)	Large	0	81%	330	-	-	0.5	-	\$32.54	\$ -
	Small	0	98%	1,454	-	-	0.5	-	\$32.54	\$ -
Coil Coating	Large	0	81%	101	-	-	0.5	-	\$32.54	\$ -
	Small	0	98%	18	-	-	0.5	-	\$32.54	\$ -
Maritime	Large	0	55%	274	-	-	0.5	-	\$32.54	\$ -
	Small	0	95%	474	-	-	0.5	-	\$32.54	\$ -
Construction	Large	0	0%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	0%	1	-	-	0.5	-	\$32.54	\$ -
Government	State	0	0%	1	-	-	0.5	-	\$32.54	\$ -
	Local	0	0%	1	-	-	0.5	-	\$32.54	\$ -
SECTOR 4. PRODUCERS OF CHROMATES										
All	Large	0	37%	2	-	-	0.5	-	\$32.54	\$ -
	Small	0	93%	0	-	-	0.5	-	\$32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES										
All	Large	0	37%	2	-	-	0.5	-	\$32.54	\$ -
	Small	0	93%	1	-	-	0.5	-	\$32.54	\$ -
SECTOR 6. CCA PRODUCERS										
All	Large	0	37%	3	-	-	0.5	-	\$32.54	\$ -
	Small	0	93%	0	-	-	0.5	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS										
All	Large	0	37%	5	-	-	0.5	-	\$32.54	\$ -
	Small	0	93%	0	-	-	0.5	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS										
All	Large	0	37%	78	-	-	0.5	-	\$32.54	\$ -
	Small	0	93%	123	-	-	0.5	-	\$32.54	\$ -
SECTOR 9. PRINTING INK PRODUCERS										
All	Large	0	37%	2	-	-	0.5	-	\$32.54	\$ -
	Small	0	93%	7	-	-	0.5	-	\$32.54	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS										
All	Large	0	54%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	95%	1	-	-	0.5	-	\$32.54	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS										
All	Large	0	37%	6	-	-	0.5	-	\$32.54	\$ -
	Small	0	93%	4	-	-	0.5	-	\$32.54	\$ -

Table 12

VARIABLES	SIZE	QNFTEMP	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	QNFITTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 13. CHROMIUM METAL PRODUCERS										
All	Large	0	56%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	95%	0	-	-	0.5	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS										
Alloy and Stainless Steel	Large	0	56%	39	-	-	0.5	-	\$32.54	\$ -
	Small	0	95%	12	-	-	0.5	-	\$32.54	\$ -
Carbon Steel	Large	0	56%	116	-	-	0.5	-	\$32.54	\$ -
	Small	0	95%	37	-	-	0.5	-	\$32.54	\$ -
SECTOR 14.B FORGING INDUSTRY										
Reshaping Industry	Large	0	56%	33	-	-	0.5	-	\$32.54	\$ -
	Small	0	95%	31	-	-	0.5	-	\$32.54	\$ -
SECTOR 15. IRON AND STEEL FOUNDRIES										
All	Large	0	56%	152	-	-	0.5	-	\$32.54	\$ -
	Small	0	95%	111	-	-	0.5	-	\$32.54	\$ -
SECTOR 17. CHROMIUM DYE PRODUCERS										
All	Large	0	37%	2	-	-	0.5	-	\$32.54	\$ -
	Small	0	93%	1	-	-	0.5	-	\$32.54	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS										
All	Large	0	37%	0	-	-	0.5	-	\$32.54	\$ -
	Small	0	93%	5	-	-	0.5	-	\$32.54	\$ -
SECTOR 19. CHEMICAL DISTRIBUTORS										
All	Large	0	92%	212	-	-	0.5	-	\$32.54	\$ -
	Small	0	99%	1,600	-	-	0.5	-	\$32.54	\$ -
SECTOR 20. TEXTILE DYEING										
All	Large	0	89%	307	-	-	0.5	-	\$32.54	\$ -
	Small	0	99%	623	-	-	0.5	-	\$32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS										
All	Large	0	76%	8	-	-	0.5	-	\$32.54	\$ -
	Small	0	97%	24	-	-	0.5	-	\$32.54	\$ -
Carbon, Flat, and Container Glass	Large	0	76%	111	-	-	0.5	-	\$32.54	\$ -
	Small	0	97%	6	-	-	0.5	-	\$32.54	\$ -
SECTOR 22. PRINTING										
All	Large	0	98%	78	-	-	0.5	-	\$32.54	\$ -
	Small	0	100%	312	-	-	0.5	-	\$32.54	\$ -

Table 12

VARIABLES	SIZE	QNFTEMP	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	QNFITTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 24. CHROMIUM CATALYST USERS										
Chromium Catalyst Users	Large	0	67%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	97%	0	-	-	0.5	-	\$32.54	\$ -
Chromium Catalyst Companies	Large	128	67%	1	85	85	0.5	43	\$32.54	\$ 1,391
	Small	12	97%	1	11	11	0.5	6	\$32.54	\$ 186
SECTOR 25. REFRACTORY BRICK PRODUCERS										
All	Large	0	76%	5	-	-	0.5	-	\$32.54	\$ -
	Small	0	97%	0	-	-	0.5	-	\$32.54	\$ -
SECTOR 26. WOODWORKING										
General Industry	Large	0	94%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	99%	1	-	-	0.5	-	\$32.54	\$ -
Maritime	Large	0	55%	36	-	-	0.5	-	\$32.54	\$ -
	Small	0	95%	32	-	-	0.5	-	\$32.54	\$ -
Construction	Large	0	88%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	99%	1	-	-	0.5	-	\$32.54	\$ -
Government	State	0	88%	1	-	-	0.5	-	\$32.54	\$ -
	Local	0	88%	1	-	-	0.5	-	\$32.54	\$ -
SECTOR 27. SOLID WASTER INCINERATION										
All	Large	0	59%	39	-	-	0.5	-	\$32.54	\$ -
	Small	0	96%	47	-	-	0.5	-	\$32.54	\$ -
Government	State	0	59%	0	-	-	0.5	-	\$32.54	\$ -
	Local	0	96%	24	-	-	0.5	-	\$32.54	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS										
All	Large	0	56%	18	-	-	0.5	-	\$32.54	\$ -
	Small	0	95%	0	-	-	0.5	-	\$32.54	\$ -
SECTOR 31. CONSTRUCTION										
Industrial Rehabilitation and Maintenance	Large	0	88%	54	-	-	0.5	-	\$32.54	\$ -
	Small	0	99%	247	-	-	0.5	-	\$32.54	\$ -
	State	0	88%	16	-	-	0.5	-	\$32.54	\$ -
	Local	0	88%	93	-	-	0.5	-	\$32.54	\$ -
Hazardous Waste-Site Work	Large	0	88%	1	-	-	0.5	-	\$32.54	\$ -
	Small	0	99%	1	-	-	0.5	-	\$32.54	\$ -
	State	0	88%	1	-	-	0.5	-	\$32.54	\$ -

Table 12

VARIABLES	SIZE	QNFITEMP	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	QNFITTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
	Local	0	88%	1	-	-	0.5	-	\$32.54	\$ -
Refractory Brick Restoration	Large	0	88%	47	-	-	0.5	-	\$32.54	\$ -
	Small	0	99%	185	-	-	0.5	-	\$32.54	\$ -
Average/Total				7,695	97	97	0.5	49	\$32.54	\$ 1,594

Table 13

Respiratory Protection Program: Contract Cost for an Industrial Hygienist to Conduct Quantitative Fit Testing for Respirators

This table calculates the contract cost for the industrial hygiene technician to conduct quantitative fit-testing.

$$\text{COST} = ((\text{QNFITCOST} * \text{QNFITEMP}) * 1\text{-}\% \text{FITBASE} * \# \text{PLANTS})$$

Variables:

QNFITCOST = Hourly cost for a industrial hygiene technician * # of hours

QNFITEMP = # Employees requiring annual quantitative fit-test

1- %FITBASE = Percent of plants not conducting fit-testing (%FITBASE is the percent of plants conducting annual respirator fit-testing in the baseline)

#PLANTS = Number of plants represented by the model input

0.00							
Variables	Size	QNFITCOST	# of Hours	QNFITEMP	1- %FITBASE	#PLANTS	Item 13 COST
SECTOR 1. ELECTROPLATING							
ALL	Large	\$0	0	0	71%	1	\$ -
	Small	\$0	0	0	97%	1	\$ -
SECTOR 2A. WELDING							
GENERAL INDUSTRY	Large	\$84	2	0	81%	1	\$ -
	Small	\$84	2	0	98%	1	\$ -
MARITIME	Large	\$0	0	0	55%	1	\$ -
	Small	\$0	0	0	95%	1	\$ -
CONSTRUCTION	Large	\$0	0	0	88%	1	\$ -
	Small	\$0	0	0	99%	1	\$ -
GOVERNMENT	State	\$0	0	0	88%	1	\$ -
	Local	\$0	0	0	99%	1	\$ -
SECTOR 2B. MILD STEEL WELDING							
GENERAL INDUSTRY	Large	\$84	2	0	81%	1	\$ -
	Small	\$84	2	0	98%	1	\$ -
MARITIME	Large	\$0	0	0	81%	1	\$ -
	Small	\$0	0	0	98%	1	\$ -
CONSTRUCTION	Large	\$0	0	0	81%	1	\$ -
	Small	\$0	0	0	98%	1	\$ -
SECTOR 3. PAINTING							
GENERAL INDUSTRY AEROSPACE	Large	\$0	0	0	81%	50	\$ -
	Small	\$0	0	0	98%	62	\$ -
	Large	\$0	0	0	81%	330	\$ -

Table 13

Variables	Size	QNFITCOST	# of Hours	QNFITEMP	1-%FITBASE	#PLANTS	Item 13 COST
GENERAL INDUSTRY AUTOBODY	Small	\$0	0	0	98%	1,454	\$ -
COIL COATING	Large	\$0	0	0	81%	101	\$ -
	Small	\$0	0	0	98%	18	\$ -
MARITIME	Large	\$0	0	0	55%	274	\$ -
	Small	\$0	0	0	95%	474	\$ -
CONSTRUCTION	Large	\$0	0	0	0%	1	\$ -
	Small	\$0	0	0	0%	1	\$ -
GOVERNMENT	State	\$0	0	0	0%	1	\$ -
	Local	\$0	0	0	0%	1	\$ -
SECTOR 4. PRODUCERS OF CHROMATES							
ALL	Large	\$0	0	0	37%	2	\$ -
	Small	\$0	0	0	93%	0	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES							
ALL	Large	\$0	0	0	37%	2	\$ -
	Small	\$0	0	0	93%	1	\$ -
SECTOR 6. CCA PRODUCERS							
ALL	Large	\$0	0	0	37%	3	\$ -
	Small	\$0	0	0	93%	0	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS							
ALL	Large	\$0	0	0	37%	5	\$ -
	Small	\$0	0	0	93%	0	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS							
ALL	Large	\$0	0	0	37%	78	\$ -
	Small	\$0	0	0	93%	123	\$ -
SECTOR 9. PRINTING INK PRODUCERS							
ALL	Large	\$0	0	0	37%	2	\$ -
	Small	\$0	0	0	93%	7	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS							
ALL	Large	\$0	0	0	54%	1	\$ -
	Small	\$0	0	0	95%	1	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS							
ALL	Large	\$0	0	0	37%	6	\$ -

Table 13

Variables	Size	QNFITCOST	# of Hours	QNFITEMP	1-%FITBASE	#PLANTS	Item 13 COST
	Small	\$0	0	0	93%	4	\$ -
SECTOR 13. CHROMIUM METAL PRODUCERS							
ALL	Large	\$0	0	0	56%	1	\$ -
	Small	\$0	0	0	95%	0	\$ -
SECTOR 14. IRON AND STEEL MILLS							
ALL	Large	\$0	0	0	56%	39	\$ -
	Small	\$0	0	0	95%	12	\$ -
CARBON STEEL	Large	\$0	0	0	56%	116	\$ -
	Small	\$0	0	0	95%	37	\$ -
SECTOR 14.B FORGING INDUSTRY							
RESHAPING	Large	\$0	0	0	56%	33	\$ -
	Small	\$0	0	0	95%	31	\$ -
SECTOR 15. IRON AND STEEL FOUNDRIES							
ALL	Large	\$0	0	0	56%	152	\$ -
	Small	\$0	0	0	95%	111	\$ -
SECTOR 17. CHROMIUM DYE PRODUCERS							
ALL	Large	\$0	0	0	37%	2	\$ -
	Small	\$0	0	0	93%	1	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS							
ALL	Large	\$0	0	0	37%	0	\$ -
	Small	\$0	0	0	93%	5	\$ -
SECTOR 19. CHEMICAL DISTRIBUTORS							
ALL	Large	\$0	0	0	92%	212	\$ -
	Small	\$0	0	0	99%	1,600	\$ -
SECTOR 20. TEXTILE DYEING							
ALL	Large	\$0	0	0	89%	307	\$ -
	Small	\$0	0	0	99%	623	\$ -
SECTOR 21. COLORED GLASS PRODUCERS							
ALL	Large	\$0	0	0	76%	8	\$ -
	Small	\$0	0	0	97%	24	\$ -
Carbon, Flat, and Container Glass	Large	\$0	0	0	76%	111	\$ -
	Small	\$0	0	0	97%	6	\$ -
SECTOR 22. PRINTING							
	Large	\$0	0	0	98%	78	\$ -

Table 13

Variables	Size	QNFITCOST	# of Hours	QNFITEMP	1-%FITBASE	#PLANTS	Item 13 COST
ALL	Small	\$0	0	0	100%	312	\$ -
SECTOR 24. CHROMIUM CATALYST USERS							
Chromium Catalyst Users	Large	\$0	0	0	67%	1	\$ -
	Small	\$0	0	0	97%	0	\$ -
Chromium Catalyst Companies	Large	\$151	4	35	100%	1	\$ 5,350
	Small	\$14	0	35	100%	1	\$ 495
SECTOR 25. REFRACTORY BRICK PRODUCERS							
ALL	Large	\$0	0	0	76%	5	\$ -
	Small	\$0	0	0	97%	0	\$ -
SECTOR 26. WOODWORKING							
GENERAL INDUSTRY	Large	\$0	0	0	94%	1	\$ -
	Small	\$0	0	0	99%	1	\$ -
MARITIME	Large	\$0	0	0	55%	36	\$ -
	Small	\$0	0	0	95%	32	\$ -
CONSTRUCTION	Large	\$0	0	0	88%	1	\$ -
	Small	\$0	0	0	99%	1	\$ -
	State	\$0	0	0	88%	1	\$ -
	Local	\$0	0	0	88%	1	\$ -
SECTOR 27. SOLID WASTER INCINERATION							
ALL	Large	\$0	0	0	59%	39	\$ -
	Small	\$0	0	0	96%	47	\$ -
GOVERNMENT	State	\$0	0	0	59%	0	\$ -
	Local	\$0	0	0	96%	24	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS							
ALL	Large	\$0	0	0	56%	18	\$ -
	Small	\$0	0	0	95%	0	\$ -
SECTOR 31. CONSTRUCTION							
INDUSTRIAL REHABILITATION AND MAINTENANCE	Large	\$0	0	0	88%	54	\$ -
	Small	\$0	0	0	99%	247	\$ -
	State	\$0	0	0	88%	16	\$ -
	Local	\$0	0	0	88%	93	\$ -
	Large	\$0	0	0	88%	1	\$ -

Table 13

Variables	Size	QNFITCOST	# of Hours	QNFITEMP	1-%FITBASE	#PLANTS	Item 13 COST
HAZARDOUS WASTE-SITE WORK	Small	\$0	0	0	99%	1	\$ -
	State	\$0	0	0	88%	1	\$ -
	Local	\$0	0	0	88%	1	\$ -
REFRACTORY BRICK RESTORATION AND MAINTENANCE	Large	\$0	0	0	88%	47	\$ -
	Small	\$0	0	0	99%	185	\$ -
Total						7,695	\$ 5,846

Table 14

TABLE 14: Respiratory-Protection Program: Medical Questionnaire for Respirator Use (§§ 1910.1026(g)(2), 1915.1026(f)(2), and 1926.1126(f)(2)); Employee Time and Cost to Complete the Medical Questionnaire for Respirator Use

This table calculates the burden hours and cost of employee time to complete a medical questionnaire. The hours and cost is determined by the number of employees who are at or above the action level and at or below the PEL by the time it takes to fill out the medical questionnaire and by non-supervisory wage rate.

$$\text{BURDEN HOURS} = (\text{EMPAL} * \text{MEDHISTTIME} * 1\text{-}\% \text{FITBASE} * \# \text{PLANTS})$$

$$\text{COST} = \text{Hours} * \text{NONSUPEWAGE}$$

Variables:

EMPAL = Number of employees who wear respirators who are at or above the AL and at or below the PEL in the model plant

MEDHISTTIME = Employee time to complete medical history questionnaire (10 mins)

1-%FITBASE = Percent of plants not conducting annual respirator fit-test

#PLANTS = Number of plants represented by the model output

NONSUPEWAGE = Non-Supervisory wage rate

VARIABLES	SIZE	EMPAL	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	MEDHISTTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING										
All	Large	5,063	71%	1	3,595	3,595	0.17	599	\$32.54	\$19,497
	Small	1,104	97%	1	1,071	1,071	0.17	178	\$32.54	\$5,807
SECTOR 2A. WELDING										
General Industry	Large	0	81%	1 -	-	-	0.17 -	-	\$32.54	-
	Small	0	98%	1 -	-	-	0.17 -	-	\$32.54	-
Maritime	Large	2,422	55%	1	1,332	1,332	0.17	222	\$32.54	\$7,226
	Small	57	95%	1	54	54	0.17	9	\$32.54	\$295
Construction	Large	3,354	88%	1	2,951	2,951	0.17	492	\$32.54	\$16,007
	Small	2,593	99%	1	2,567	2,567	0.17	428	\$32.54	\$13,924
Government	State	15	88%	1	13	13	0.17	2	\$32.54	\$72
	Local	76	99%	1	76	76	0.17	13	\$32.54	\$410
SECTOR 2B. MILD STEEL WELDING										
General Industry	Large	0	55%	1	-	-	0.17	-	\$32.54	-
	Small	0	95%	1	-	-	0.17	-	\$32.54	-
Maritime	Large	17	88%	1	15	15	0.17	3	\$32.54	\$82
	Small	0	99%	1	-	-	0.17	-	\$32.54	-
Construction	Large	684	88%	1	602	602	0.17	100	\$32.54	\$3,266
	Small	551	99%	1	545	545	0.17	91	\$32.54	\$2,956
SECTOR 3. PAINTING										
General Industry (Aerospace)	Large	32	81%	50	1,289	1,289	0.17	215	\$32.54	\$6,991
	Small	0	98%	62	-	-	0.17	-	\$32.54	-
General Industry (Autobody Repair)	Large	1	81%	330	246	246	0.17	41	\$32.54	\$1,332
	Small	0	98%	1,454	-	-	0.17	-	\$32.54	-
Coil Coating	Large	2	81%	101	150	150	0.17	25	\$32.54	\$814

Table 14

VARIABLES	SIZE	EMPAL	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	MEDHITIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
	Small	1	98%	18	17	17	0.17	3	\$32.54	\$90
Maritime	Large	1	55.00%	274	129	129	0.17	22	\$32.54	\$700
	Small	1	95%	474	451	451	0.17	75	\$32.54	\$2,445
Construction	Large	486	0%	1	-	-	0.17	-	\$32.54	-
	Small	612	0%	1	-	-	0.17	-	\$32.54	-
Government	State	45	0%	1	-	-	0.17	-	\$32.54	-
	Local	195	0%	1	-	-	0.17	-	\$32.54	-
SECTOR 4. PRODUCERS OF CHROMATES										
All	Large	7	37%	2	5	5	0.17	1	\$32.54	\$26
	Small	0	93%	0	-	-	0.17	-	\$32.54	-
SECTOR 5. CHROMATE PIGMENT PROCEDURES										
All	Large	5	37%	2	3	3	0.17	1	\$32.54	\$17
	Small	1	93%	1	1	1	0.17	0	\$32.54	\$4
SECTOR 6. CCA PRODUCERS										
All	Large	2	37%	3	2	2	0.17	0	\$32.54	\$10
	Small	0	93%	0	-	-	0.17	-	\$32.54	-
SECTOR 7. CHROMIUM CATALYST PRODUCERS										
All	Large	11	37%	5	19	19	0.17	3	\$32.54	\$103
	Small	0	93%	0	-	-	0.17	-	\$32.54	-
SECTOR 8. PAINT AND COATING PRODUCERS										
All	Large	1	37%	78	29	29	0.17	5	\$32.54	\$157
	Small	0	93%	123	-	-	0.17	-	\$32.54	-
SECTOR 9. PRINTING INK PRODUCERS										
All	Large	9	37%	2	7	7	0.17	1	\$32.54	\$40
	Small	2	93%	7	14	14	0.17	2	\$32.54	\$75
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS										
All	Large	332	54%	1	179	179	0.17	30	\$32.54	\$972
	Small	34	95%	1	32	32	0.17	5	\$32.54	\$175
SECTOR 11. PLATING MIXTURE PRODUCERS										
All	Large	3	37%	6	7	7	0.17	1	\$32.54	\$36
	Small	1	93%	4	4	4	0.17	1	\$32.54	\$20
SECTOR 13. CHROMIUM METAL PRODUCERS										
All	Large	8	56%	1	5	5	0.17	1	\$32.54	\$25
	Small	0	95%	0	-	-	0.17	-	\$32.54	-
SECTOR 14. IRON AND STEEL MILLS										
All	Large	31	56%	39	665	665	0.17	111	\$32.54	\$3,609
	Small	1	95%	12	17	17	0.17	3	\$32.54	\$94
Carbon Steel	Large	1	56%	116	48	48	0.17	8	\$32.54	\$258
	Small	1	95%	37	51	51	0.17	8	\$32.54	\$275

Table 14

VARIABLES	SIZE	EMPL	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	MEDHISTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 14.B FORGING INDUSTRY										
Reshaping	Large	3	56%	33	56	56	0.17	9	\$32.54	\$303
	Small	1	95%	31	30	30	0.17	5	\$32.54	\$161
SECTOR 15. IRON AND STEEL FOUNDRIES										
All	Large	16	56%	152	1,363	1,363	0.17	227	\$32.54	\$7,394
	Small	4	95%	111	420	420	0.17	70	\$32.54	\$2,281
SECTOR 17. CHROMIUM DYE PRODUCERS										
All	Large	27	37%	2	25	25	0.17	4	\$32.54	\$135
	Small	6	93%	1	5	5	0.17	1	\$32.54	\$25
SECTOR 18. CHROMIUM SULFATE PRODUCTERS										
All	Large	0	37%	0	-	-	0.17	-	\$32.54	-
	Small	1	93%	5	4	4	0.17	1	\$32.54	\$23
SECTOR 19. CHEMICAL DISTRIBUTORS										
All	Large	0	92%	212	-	-	0.17	-	\$32.54	-
	Small	0	99%	1,600	-	-	0.17	-	\$32.54	-
SECTOR 20. TEXTILE DYEING										
All	Large	0	89%	307	-	-	0.17	-	\$32.54	-
	Small	0	99%	623	-	-	0.17	-	\$32.54	-
SECTOR 21. COLORED GLASS PRODUCERS										
All	Large	1	76%	8	8	8	0.17	1	\$32.54	\$41
	Small	0	97%	24	-	-	0.17	-	\$32.54	-
Fiber, Flat, Container Glass	Large	9	76%	111	760	760	0.17	127	\$32.54	\$4,124
	Small	1	97%	6	8	8	0.17	1	\$32.54	\$44
SECTOR 22. PRINTING										
All	Large	0	98%	78	-	-	0.17	-	\$32.54	-
	Small	0	99.70%	312	-	-	0.17	-	\$32.54	-
SECTOR 24. CHROMIUM CATALYST USERS										
All	Large	1	67%	1	1	1	0.17	0	\$32.54	\$4
	Small	0	97%	0	-	-	0.17	-	\$32.54	-
Chromium Catalyst Companies	Large	128	0%	1	-	-	0.17	-	\$32.54	-
	Small	0	0%	1	-	-	0.17	-	\$32.54	-
SECTOR 25. REFRACTORY BRICK PRODUCERS										
All	Large	0	76%	5	-	-	0.17	-	\$32.54	-
	Small	0	97%	0	-	-	0.17	-	\$32.54	-
SECTOR 26. WOODWORKING										
General Industry	Large	0	94%	1	-	-	0.17	-	\$32.54	-
	Small	0	99%	1	-	-	0.17	-	\$32.54	-
Maritime	Large	0	55%	36	-	-	0.17	-	\$32.54	-
	Small	0	95%	32	-	-	0.17	-	\$32.54	-

Table 14

VARIABLES	SIZE	EMPAL	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	MEDHISTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Construction	Large	0	88%	1	-	-	0.17	-	\$32.54	-
	Small	0	99%	1	-	-	0.17	-	\$32.54	-
Government	State	0	88%	1	-	-	0.17	-	\$32.54	-
	Local	0	88%	1	-	-	0.17	-	\$32.54	-
SECTOR 27. SOLID WASTER INCINERATION										
All	Large	0	59%	39	-	-	0.17	-	\$32.54	-
	Small	0	96%	47	-	-	0.17	-	\$32.54	-
Government	State	0	59%	0	-	-	0.17	-	\$32.54	-
	Local	0	96%	24	-	-	0.17	-	\$32.54	-
SECTOR 30. SUPERALLOY PRODUCERS AND USERS										
All	Large	0	56%	18	-	-	0.17	-	\$32.54	-
	Small	0	95%	0	-	-	0.17	-	\$32.54	-
SECTOR 31. CONSTRUCTION										
Industrial Rehabilitation and Maintenance	Large	0	88%	54	-	-	0.17	-	\$32.54	-
	Small	0	99%	247	-	-	0.17	-	\$32.54	-
	State	0	88%	16	-	-	0.17	-	\$32.54	-
	Local	0	88%	93	-	-	0.17	-	\$32.54	-
Hazardous Waste-Site Work	Large	0	88%	1	-	-	0.17	-	\$32.54	-
	Small	0	99%	1	-	-	0.17	-	\$32.54	-
	State	0	88%	1	-	-	0.17	-	\$32.54	-
	Local	0	88%	1	-	-	0.17	-	\$32.54	-
Refractory Brick Restoration	Large	0	88%	47	-	-	0.17	-	\$32.54	-
	Small	0	99%	185	-	-	0.17	-	\$32.54	-
Average/Total				7,695	18,870	18,870	0.17	3,145	\$32.54	\$ 102,338

Table 15

Respiratory Protection Program: Medical Questionnaire for Respirator Use (§§ 1910.1026(g)(2), 1915.1026(f)(2), and 1926.1126(f)(2)); Contract Cost for a PLHCP to Review the Medical Questionnaire for Respirator Use
This table calculates the contract cost of the medical questionnaire and review by the licensed physician.

$$\text{COST} = (\text{EMPAL} * \text{MEDHISTCOST} * 1\text{-}\% \text{FITBASE} * \#\text{PLANTS})$$

Variables:

EMPAL = Number of employees who wear respirators who are at or above the AL and at or below the PEL in the model plant

MEDHISTCOST = Cost of medical history questionnaire to be reviewed by a PLHCP.

1-%FITBASE = Percent of plants not conducting annual respirator fit-test

#PLANTS = Number of plants represented by the model output

0						
Variables	Size	EMPAL	MEDHISTCOST	1-%FITBASE	#PLANTS	Item 13 COST
SECTOR 1. ELECTROPLATING						
ALL	Large	5,063	\$ 49.68	71%	1	\$ 178,576.02
	Small	1,104	\$ 49.68	97%	1	\$ 53,190.54
SECTOR 2A. WELDING						
GENERAL INDUSTRY	Large	0	\$ 49.68	81%	1	\$ -
	Small	0	\$ 49.68	98%	1	\$ -
MARITIME	Large	2,422	\$ 49.68	55%	1	\$ 66,186.50
	Small	57	\$ 49.68	95%	1	\$ 2,702.76
CONSTRUCTION	Large	3,354	\$ 49.68	88%	1	\$ 146,615.04
	Small	2,593	\$ 49.68	99%	1	\$ 127,535.98
GOVERNMENT	State	15	\$ 49.68	88%	1	\$ 658.85
	Local	76	\$ 49.68	99%	1	\$ 3,755.42
SECTOR 2B. MILD STEEL WELDING						
GENERAL INDUSTRY	Large	0	\$ 49.68	81%	1	\$ -
	Small	0	\$ 49.68	98%	1	\$ -
MARITIME	Large	17	\$ 49.68	55%	1	\$ 466.68
	Small	0	\$ 49.68	95%	1	\$ -
CONSTRUCTION	Large	684	\$ 49.68	88%	1	\$ 29,911.58
	Small	551	\$ 49.68	99%	1	\$ 27,078.54
SECTOR 3. PAINTING						
GENERAL INDUSTRY (AEROSPACE)	Large	32	\$ 49.68	81%	50	\$ 64,034.27

Table 15

Variables	Size	EMPAL	MEDHISTCOST	1-%FITBASE	#PLANTS	Item 13 COST
	Small	0	\$ 49.68	98%	62	\$ -
GENERAL INDUSTRY (AUTOBODY REPAIR)	Large	1	\$ 49.68	81%	330	\$ 12,197.00
	Small	0	\$ 49.68	98%	1,454	\$ -
GENERAL INDUSTRY (COIL COATING)	Large	2	\$ 49.68	81%	101	\$ 7,453.72
	Small	1	\$ 49.68	98%	18	\$ 819.83
MARITIME	Large	1	\$ 49.68	55%	274	\$ 6,409.43
	Small	1	\$ 49.68	95%	474	\$ 22,390.60
CONSTRUCTION	Large	486	\$ 49.68	0%	1	\$ -
	Small	612	\$ 49.68	0%	1	\$ -
GOVERNMENT	State	45	\$ 49.68	0%	1	\$ -
	Local	195	\$ 49.68	0%	1	\$ -
SECTOR 4. PRODUCERS OF CHROMATES						
ALL	Large	7	\$ 49.68	37%	2	\$ 239.62
	Small	0	\$ 49.68	93%	0	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES						
ALL	Large	5	\$ 49.68	37%	2	\$ 153.13
	Small	1	\$ 49.68	93%	1	\$ 38.49
SECTOR 6. CCA PRODUCERS						
ALL	Large	2	\$ 49.68	37%	3	\$ 95.24
	Small	0	\$ 49.68	93%	0	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS						
ALL	Large	11	\$ 49.68	37%	5	\$ 941.37
	Small	0	\$ 49.68	93%	0	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS						
ALL	Large	1	\$ 49.68	37%	78	\$ 1,437.72
	Small	0	\$ 49.68	93%	123	\$ -
SECTOR 9. PRINTING INK PRODUCERS						
ALL	Large	9	\$ 49.68	37%	2	\$ 366.63
	Small	2	\$ 49.68	93%	7	\$ 682.61
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS						
ALL	Large	332	\$ 49.68	54%	1	\$ 8,905.91
	Small	34	\$ 49.68	95%	1	\$ 1,604.53

Table 15

Variables	Size	EMPAL	MEDHISTCOST	1-%FITBASE	#PLANTS	Item 13 COST
SECTOR 11. PLATING MIXTURE PRODUCERS						
ALL	Large	3	\$ 49.68	37%	6	\$ 326.33
	Small	1	\$ 49.68	93%	4	\$ 182.27
SECTOR 13. CHROMIUM METAL PRODUCERS						
ALL	Large	8	\$ 49.68	56%	1	\$ 231.25
	Small	0	\$ 49.68	95%	0	\$ -
SECTOR 14. IRON AND STEEL MILLS						
Alloy and Stainless Steel	Large	31	\$ 49.68	56%	39	\$ 33,054.34
	Small	1	\$ 49.68	95%	12	\$ 856.48
Carbon Steel	Large	1	\$ 49.68	56%	116	\$ 2,361.02
	Small	1	\$ 49.68	95%	37	\$ 2,519.06
SECTOR 14.B FORGING INDUSTRY						
Reshaping Industry	Large	3	\$ 49.68	56%	33	\$ 2,771.04
	Small	1	\$ 49.68	95%	31	\$ 1,476.56
SECTOR 15. IRON AND STEEL FOUNDRIES						
ALL	Large	16	\$ 49.68	56%	152	\$ 67,722.40
	Small	4	\$ 49.68	95%	111	\$ 20,888.40
SECTOR 17. CHROMIUM DYE PRODUCERS						
ALL	Large	27	\$ 49.68	37%	2	\$ 1,240.34
	Small	6	\$ 49.68	93%	1	\$ 230.93
SECTOR 18. CHROMIUM SULFATE PRODUCERS						
ALL	Large	0	\$ 49.68	37%	0	\$ -
	Small	1	\$ 49.68	93%	5	\$ 215.10
SECTOR 19. CHEMICAL DISTRIBUTORS						
ALL	Large	0	\$ 49.68	92%	212	\$ -
	Small	0	\$ 49.68	99%	1,600	\$ -
SECTOR 20. TEXTILE DYEING						
ALL	Large	0	\$ 49.68	89%	307	\$ -
	Small	0	\$ 49.68	99%	623	\$ -
SECTOR 21. COLORED GLASS PRODUCERS						
ALL	Large	1	\$ 49.68	76%	8	\$ 376.46
	Small	0	\$ 49.68	97%	24	\$ -
	Large	9	\$ 49.68	76%	111	\$ 37,771.81

Table 15

Variables	Size	EMPAL	MEDHISTCOST	1-%FITBASE	#PLANTS	Item 13 COST
FIBER, FLAT AND CONTAINER GLASS	Small	1	\$ 49.68	97%	6	\$ 400.41
SECTOR 22. PRINTING						
ALL	Large	0	\$ 49.68	98%	78	\$ -
	Small	0	\$ 49.68	100%	312	\$ -
SECTOR 24. CHROMIUM CATALYST USERS						
ALL	Large	1	\$ 49.68	67%	1	\$ 39.31
	Small	0	\$ 49.68	97%	0	\$ -
Chromium Catalyst Companies	Large	128	\$ 49.68	0%	1	\$ -
	Small	0	\$ 49.68	0%	1	\$ -
SECTOR 25. REFRACTORY BRICK PRODUCERS						
ALL	Large	0	\$ 49.68	76%	5	\$ -
	Small	0	\$ 49.68	97%	0	\$ -
SECTOR 26. WOODWORKING						
GENERAL INDUSTRY	Large	0	\$ 49.68	94%	1	\$ -
	Small	0	\$ 49.68	99%	1	\$ -
MARITIME	Large	0	\$ 49.68	55%	36	\$ -
	Small	0	\$ 49.68	95%	32	\$ -
CONSTRUCTION	Large	0	\$ 49.68	88%	1	\$ -
	Small	0	\$ 49.68	99%	1	\$ -
Government	State	0	\$ 49.68	88%	1	\$ -
	Local	0	\$ 49.68	88%	1	\$ -
SECTOR 27. SOLID WASTER INCINERATION						
ALL	Large	0	\$ 49.68	59%	39	\$ -
	Small	0	\$ 49.68	96%	47	\$ -
Government	State	0	\$ 49.68	59%	0	\$ -
	Local	0	\$ 49.68	96%	24	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS						
ALL	Large	0	\$ 49.68	56%	18	\$ -
	Small	0	\$ 49.68	95%	0	\$ -
SECTOR 31. CONSTRUCTION						
	Large	0	\$ 49.68	88%	54	\$ -

Table 15

Variables	Size	EMPAL	MEDHISTCOST	1-%FITBASE	#PLANTS	Item 13 COST
INDUSTRIAL REHABILITATION AND MAINTENANCE	Small	0	\$ 49.68	99%	247	\$ -
	State	0	\$ 49.68	88%	16	\$ -
	Local	0	\$ 49.68	88%	93	\$ -
HAZARDOUS WASTE-SITE WORK	Large	0	\$ 49.68	88%	1	\$ -
	Small	0	\$ 49.68	99%	1	\$ -
	State	0	\$ 49.68	88%	1	\$ -
REFRACTORY BRICK RESTORATION	Local	0	\$ 49.68	88%	1	\$ -
	Large	0	\$ 49.68	88%	47	\$ -
	Small	0	\$ 49.68	99%	185	\$ -
Total					7,695	\$ 937,112

Table 16

TABLE 16: Respiratory Protection Program: Follow-up Medical Examination for Respirator Use (§§ 1910.1026(g)(2), 1915.1026(f)(2), and 1926.1126(f)(2)); Employee Time and Cost to Complete the Medical Examination for Respirator Use
 This table calculates the burden hour and cost estimate for employees that "fail" the medical history questionnaire. It is estimated that 23% (EMPMEDEXAM) will not pass the medical questionnaire

$$\text{BURDEN HOURS} = (\text{EMPAL} * \text{RESPEXAMTIME} * \% \text{EMPMEDEXAM} * 1\% \text{FITBASE} * \text{PLANTS})$$

$$\text{COST} = \text{BURDEN HOURS} * \text{NONSUPEWAGE}$$

Variables:

EMPAL =

Number of employees who wear respirators who are at or above the AL and at or below the PEL in the model plant

RESPEXAMTIME = Employee time, in hours, for medical exam for respirator use

%EMPMEDEXAM = Percent of employees that will require a medical exam for respirator use

1-%FITBASE = Percent of plants not conducting annual respirator fit-test

#PLANTS = Number of plants represented by the model output

NONSUPEWAGE = Non-Supervisory wage rate

%EMPMEDEXAM = Percent of employees who "fail" an initial medical exam

VARIABLES	SIZE	EMPAL	%EMPMEDEXAM	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	RESPEXAMTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING											
All	Large	5,063	23%	71%	1	827	827	3	2,480	\$32.54	\$ 80,716
	Small	1,104	23%	97%	1	246	246	3	739	\$32.54	\$ 24,042
SECTOR 2A. WELDING											
General Industry	Large	0	23%	81%	1	-	-	3	-	\$32.54	\$ -
	Small	0	23%	98%	1	-	-	3	-	\$32.54	\$ -
Maritime	Large	2,422	23%	55%	1	306	306	3	919	\$32.54	\$ 29,916
	Small	57	23%	95%	1	13	13	3	38	\$32.54	\$ 1,222
Construction	Large	3,354	23%	88%	1	679	679	3	2,036	\$32.54	\$ 66,270
	Small	2,593	23%	99%	1	590	590	3	1,771	\$32.54	\$ 57,646
Government	State	15	23%	88%	1	3	3	3	9	\$32.54	\$ 298
	Local	76	23%	99%	1	17	17	3	52	\$32.54	\$ 1,697
SECTOR 2B. MILD STEEL WELDING											
General Industry	Large	0	23%	81%	1	-	-	3	-	\$32.54	\$ -
	Small	0	23%	98%	1	-	-	3	-	\$32.54	\$ -
Maritime	Large	17	23%	55%	1	2	2	3	6	\$32.54	\$ 211
	Small	0	23%	95%	1	-	-	3	-	\$32.54	\$ -
Construction	Large	684	23%	88%	1	138	138	3	415	\$32.54	\$ 13,520
	Small	551	23%	99%	1	125	125	3	376	\$32.54	\$ 12,239
SECTOR 3. PAINTING											
General Industry (Aerospace)	Large	32	23%	81%	50	296	296	3	889	\$32.54	\$ 28,943
	Small	0	23%	98%	62	-	-	3	-	\$32.54	\$ -
General Industry (Autobody Repair)	Large	1	23%	81%	330	56	56	3	169	\$32.54	\$ 5,513
	Small	0	23%	98%	1,454	-	-	3	-	\$32.54	\$ -
General Industry (Coil Coating)	Large	2	23%	81%	101	35	35	3	104	\$32.54	\$ 3,369
	Small	1	23%	98%	18	4	4	3	11	\$32.54	\$ 371

Table 16

VARIABLES	SIZE	EMPAL	%EMP/DETXAM	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	RESPEXAMTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Maritime	Large	1	23%	55%	274	30	30	3	89	\$32.54	\$ 2,897
	Small	1	23%	95%	474	104	104	3	311	\$32.54	\$ 10,121
Construction	Large	486	23%	0%	1	-	-	3	-	\$32.54	\$ -
	Small	612	23%	0%	1	-	-	3	-	\$32.54	\$ -
Government	State	45	23%	0%	1	-	-	3	-	\$32.54	\$ -
	Local	195	23%	0%	1	-	-	3	-	\$32.54	\$ -
SECTOR 4. PRODUCERS OF CHROMATES											
All	Large	7	23%	37%	2	1	1	3	3	\$32.54	\$ 108
	Small	0	23%	93%	0	-	-	3	-	\$32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES											
All	Large	5	23%	37%	2	1	1	3	2	\$32.54	\$ 69
	Small	1	23%	93%	1	0.2	0.2	3	1	\$32.54	\$ 17
SECTOR 6. CCA PRODUCERS											
All	Large	2	23%	37%	3	0.4	0.4	3	1	\$32.54	\$ 43
	Small	0	23%	93%	0	-	-	3	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCTERS											
All	Large	11	23%	37%	5	4	4	3	13	\$32.54	\$ 425
	Small	0	23%	93%	0	-	-	3	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS											
All	Large	1	23%	37%	78	7	7	3	20	\$32.54	\$ 650
	Small	0	23%	93%	123	-	-	3	-	\$32.54	\$ -
SECTOR 9. PRINTING INK PRODUCERS											
All	Large	9	23%	37%	2	2	2	3	5	\$32.54	\$ 166
	Small	2	23%	93%	7	3	3	3	9	\$32.54	\$ 309
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS											
All	Large	332	23%	54%	1	41	41	3	124	\$32.54	\$ 4,025
	Small	34	23%	95%	1	7	7	3	22	\$32.54	\$ 725
SECTOR 11. PLATING MIXTURE PRODUCERS											
All	Large	3	23%	37%	6	2	2	3	5	\$32.54	\$ 147
	Small	1	23%	93%	4	1	1	3	3	\$32.54	\$ 82
SECTOR 13. CHROMIUM METAL PRODUCERS											
All	Large	8	23%	56%	1	1	1	3	3	\$32.54	\$ 105
	Small	0	23%	95%	0	-	-	3	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS											
Alloy and Stainless Steel	Large	31	23%	56%	39	153	153	3	459	\$32.54	\$ 14,941
	Small	1	23%	95%	12	4	4	3	12	\$32.54	\$ 387
Carbon Steel	Large	1	23%	56%	116	11	11	3	33	\$32.54	\$ 1,067
	Small	1	23%	95%	37	12	12	3	35	\$32.54	\$ 1,139
SECTOR 14.B FORGING INDUSTRY											
	Large	3	23%	56%	33	13	13	3	38	\$32.54	\$ 1,253

Table 16

VARIABLES	SIZE	EMPAL	%EMP/DEXTAM	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	RESPEXAMTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Reshaping Industry	Small	1	23%	95%	31	7	7	3	21	\$32.54	\$ 667
SECTOR 15. IRON AND STEEL FOUNDRIES											
All	Large	16	23%	56%	152	314	314	3	941	\$32.54	\$ 30,610
	Small	4	23%	95%	111	97	97	3	290	\$32.54	\$ 9,442
SECTOR 17. CHROMIUM DYE PRODUCERS											
All	Large	27	23%	37%	2	6	6	3	17	\$32.54	\$ 561
	Small	6	23%	93%	1	1	1	3	3	\$32.54	\$ 104
SECTOR 18. CHROMIUM SULFATE PRODUCERS											
All	Large	0	23%	37%	0	-	-	3	-	\$32.54	\$ -
	Small	1	23%	93%	5	1	1	3	3	\$32.54	\$ 97
SECTOR 19. CHEMICAL DISTRIBUTORS											
All	Large	0	23%	92%	212	-	-	3	-	\$32.54	\$ -
	Small	0	23%	99%	1,600	-	-	3	-	\$32.54	\$ -
SECTOR 20. TEXTILE DYEING											
All	Large	0	23%	89%	307	-	-	3	-	\$32.54	\$ -
	Small	0	23%	99%	623	-	-	3	-	\$32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS											
All	Large	1	23%	76%	8	2	2	3	5	\$32.54	\$ 170
	Small	0	23%	97%	24	-	-	3	-	\$32.54	\$ -
Fiber, Flat and Container Glass	Large	9	23%	76%	111	175	175	3	525	\$32.54	\$ 17,073
	Small	1	23%	97%	6	2	2	3	6	\$32.54	\$ 181
SECTOR 22. PRINTING											
All	Large	0	23%	98%	78	-	-	3	-	\$32.54	\$ -
	Small	0	23%	100%	312	-	-	3	-	\$32.54	\$ -
SECTOR 24. CHROMIUM CATALYST USERS											
All	Large	1	23%	67%	1	0.2	0.2	3	1	\$32.54	\$ 18
	Small	0	23%	0%	0	-	-	3	-	\$32.54	\$ -
Chromium Catalyst Companies	Large	128	23%	0%	1	-	-	3	-	\$32.54	\$ -
	Small	0	23%	97%	1	-	-	3	-	\$32.54	\$ -
SECTOR 25. REFRACTORY BRICK PRODUCERS											
All	Large	0	23%	76%	5	-	-	3	-	\$32.54	\$ -
	Small	0	23%	97%	0	-	-	3	-	\$32.54	\$ -
SECTOR 26. WOODWORKING											
General Industry	Large	0	23%	94%	1	-	-	3	-	\$32.54	\$ -
	Small	0	23%	99%	1	-	-	3	-	\$32.54	\$ -
Maritime	Large	0	23%	55%	36	-	-	3	-	\$32.54	\$ -
	Small	0	23%	95%	32	-	-	3	-	\$32.54	\$ -
Construction	Large	0	23%	88%	1	-	-	3	-	\$32.54	\$ -
	Small	0	23%	99%	1	-	-	3	-	\$32.54	\$ -

Table 16

VARIABLES	SIZE	EMPAL	%EMP/DEXTAM	1-%FITBASE	#PLANTS	RESPONDENTS	RESPONSES	RESPEXAMTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Government	State	0	23%	88%	1	-	-	3	-	\$32.54	\$ -
	Local	0	23%	88%	1	-	-	3	-	\$32.54	\$ -
SECTOR 27. SOLID WASTER INCINERATION											
All	Large	0	23%	59%	39	-	-	3	-	\$32.54	\$ -
	Small	0	23%	96%	47	-	-	3	-	\$32.54	\$ -
Government	State	0	23%	59%	0	-	-	3	-	\$32.54	\$ -
	Local	0	23%	96%	24	-	-	3	-	\$32.54	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS											
All	Large	0	23%	56%	18	-	-	3	-	\$32.54	\$ -
	Small	0	23%	95%	0	-	-	3	-	\$32.54	\$ -
SECTOR 31. CONSTRUCTION											
Industrial Rehabilitation and Maintenance	Large	0	23%	88%	54	-	-	3	-	\$32.54	\$ -
	Small	0	23%	99%	247	-	-	3	-	\$32.54	\$ -
	State	0	23%	88%	16	-	-	3	-	\$32.54	\$ -
	Local	0	23%	88%	93	-	-	3	-	\$32.54	\$ -
Hazardous Waste-Site Work	Large	0	23%	88%	1	-	-	3	-	\$32.54	\$ -
	Small	0	23%	99%	1	-	-	3	-	\$32.54	\$ -
	State	0	23%	88%	1	-	-	3	-	\$32.54	\$ -
	Local	0	23%	88%	1	-	-	3	-	\$32.54	\$ -
Refractory Brick Restoration	Large	0	23%	88%	47	-	-	3	-	\$32.54	\$ -
	Small	0	23%	99%	185	-	-	3	-	\$32.54	\$ -
Average/Total				Total	7,695	4,339	4,339	3	13,017	\$32.54	\$ 423,573

Table 17

Respiratory Protection Program: Follow-up Medical Examination for Respirator Use; Contract Cost for a PLHCP to Conduct the Medical Examination for Respirator Use

Employers must use a PLHCP to conduct the follow-up medical examination. The follow-up medical examination allows PLHCPs to obtain additional information that may be useful in arriving at a final medical recommendation regarding respirator use.

$$\text{COST} = (\text{EMPAL} * \text{RESPEXAMCOST} * \% \text{EMPMEDEXAM} * 1 - \% \text{FITBASE} * \# \text{PLANTS})$$

Variables:

EMPAL = Number of employees who wear respirators for more than 5 hours/week and who are at or above the AL and at or below the PEL in the model plant

RESPEXAMCOST = Cost for medical exam for respirator use

%EMPMEDEXAM = Percent of employees that will require a medical exam for respirator use

1-%FITBASE = Percent of plants not conducting annual respirator fit-test

#PLANTS = Number of plants represented by the model output

0							
	Size	EMPAL	RESPEXAMCOST	%EMPMEDEXAM	1-%FITBASE	#PLANTS	Item 13 Cost
SECTOR 1. ELECTROPLATING							
ALL	Large	5,063	\$ 149.01	23%	71%	1	\$ 123,205.90
	Small	1,104	\$ 149.01	23%	97%	1	\$ 36,698.03
SECTOR 2A. WELDING							
GENERAL INDUSTRY	Large	0	\$ 149.01	23%	81%	1	\$ -
	Small	0	\$ 149.01	23%	98%	1	\$ -
MARITIME	Large	2,422	\$ 149.01	23%	55%	1	\$ 45,664.40
	Small	57	\$ 149.01	23%	95%	1	\$ 1,864.73
CONSTRUCTION	Large	3,354	\$ 149.01	23%	88%	1	\$ 101,154.89
	Small	2,593	\$ 149.01	23%	99%	1	\$ 87,991.57
GOVERNMENT	State	15	\$ 149.01	23%	88%	1	\$ 454.56
	Local	76	\$ 149.01	23%	99%	1	\$ 2,591.00
SECTOR 2B. MILD STEEL WELDING							
GENERAL INDUSTRY	Large	0	\$ 149.01	23%	81%	1	\$ -
	Small	0	\$ 149.01	23%	98%	1	\$ -
MARITIME	Large	17	\$ 149.01	23%	55%	1	\$ 321.98
	Small	0	\$ 149.01	23%	95%	1	\$ -
CONSTRUCTION	Large	684	\$ 149.01	23%	88%	1	\$ 20,637.05
	Small	551	\$ 149.01	23%	99%	1	\$ 18,682.44
SECTOR 3. PAINTING							

Table 17

	Size	EMPAL	RESPEXAMCOST	%EMPMEDEXAM	1-%FITBASE	#PLANTS	Item 13 Cost
GENERAL INDUSTRY AEROSPACE	Large	32	\$ 149.01	23%	81%	50	\$ 44,179.50
	Small	0	\$ 149.01	23%	98%	62	\$ -
GENERAL INDUSTRY AUTOBODY	Large	1	\$ 149.01	23%	81%	330	\$ 8,415.14
	Small	0	\$ 149.01	23%	98%	1,454	\$ -
COIL COATINGS	Large	2	\$ 149.01	23%	81%	101	\$ 5,142.59
	Small	1	\$ 149.01	23%	98%	18	\$ 565.63
MARITIME	Large	1	\$ 149.01	23%	55%	274	\$ 4,422.09
	Small	1	\$ 149.01	23%	95%	474	\$ 15,448.07
CONSTRUCTION	Large	486	\$ 149.01	23%	0%	1	\$ -
	Small	612	\$ 149.01	23%	0%	1	\$ -
GOVERNMENT	State	45	\$ 149.01	23%	0%	1	\$ -
	Local	195	\$ 149.01	23%	0%	1	\$ -
SECTOR 4. PRODUCERS OF CHROMATES							
ALL	Large	7	\$ 149.01	23%	37%	2	\$ 165.32
	Small	0	\$ 149.01	23%	93%	0	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES							
ALL	Large	5	\$ 149.01	23%	37%	2	\$ 105.65
	Small	1	\$ 149.01	23%	93%	1	\$ 26.55
SECTOR 6. CCA PRODUCERS							
ALL	Large	2	\$ 149.01	23%	37%	3	\$ 65.71
	Small	0	\$ 149.01	23%	93%	0	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS							
ALL	Large	11	\$ 149.01	23%	37%	5	\$ 649.48
	Small	0	\$ 149.01	23%	93%	0	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS							
ALL	Large	1	\$ 149.01	23%	37%	78	\$ 991.93
	Small	0	\$ 149.01	23%	93%	123	\$ -
SECTOR 9. PRINTING INK PRODUCERS							
ALL	Large	9	\$ 149.01	23%	37%	2	\$ 252.95
	Small	2	\$ 149.01	23%	93%	7	\$ 470.96
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS							

Table 17

	Size	EMPAL	RESPEXAMCOST	%EMPMEDEXAM	1-%FITBASE	#PLANTS	Item 13 Cost
ALL	Large	332	\$ 149.01	23%	54%	1	\$ 6,144.50
	Small	34	\$ 149.01	23%	95%	1	\$ 1,107.02
SECTOR 11. PLATING MIXTURE PRODUCERS							
ALL	Large	3	\$ 149.01	23%	37%	6	\$ 225.14
	Small	1	\$ 149.01	23%	93%	4	\$ 125.76
SECTOR 13. CHROMIUM METAL PRODUCERS							
ALL	Large	8	\$ 149.01	23%	56%	1	\$ 159.55
	Small	0	\$ 149.01	23%	95%	0	\$ -
SECTOR 14. IRON AND STEEL MILLS							
Alloy and Stainless Steel	Large	31	\$ 149.01	23%	56%	39	\$ 22,805.35
	Small	1	\$ 149.01	23%	95%	12	\$ 590.92
Carbon Steel	Large	1	\$ 149.01	23%	56%	116	\$ 1,628.95
	Small	1	\$ 149.01	23%	95%	37	\$ 1,737.99
SECTOR 14.B FORGING INDUSTRY							
Reshaping Industry	Large	3	\$ 149.01	23%	56%	33	\$ 1,911.84
	Small	1	\$ 149.01	23%	95%	31	\$ 1,018.73
SECTOR 15. IRON AND STEEL FOUNDRIES							
ALL	Large	16	\$ 149.01	23%	56%	152	\$ 46,724.07
	Small	4	\$ 149.01	23%	95%	111	\$ 14,411.65
SECTOR 17. CHROMIUM DYE PRODUCERS							
ALL	Large	27	\$ 149.01	23%	37%	2	\$ 855.75
	Small	6	\$ 149.01	23%	93%	1	\$ 159.33
SECTOR 18. CHROMIUM SULFATE PRODUCERS							
ALL	Large	0	\$ 149.01	23%	37%	0	\$ -
	Small	1	\$ 149.01	23%	93%	5	\$ 148.41
SECTOR 19. CHEMICAL DISTRIBUTORS							
ALL	Large	0	\$ 149.01	23%	92%	212	\$ -
	Small	0	\$ 149.01	23%	99%	1,600	\$ -
SECTOR 20. TEXTILE DYEING							
ALL	Large	0	\$ 149.01	23%	89%	307	\$ -
	Small	0	\$ 149.01	23%	99%	623	\$ -
SECTOR 21. COLORED GLASS PRODUCERS							

Table 17

	Size	EMPAL	RESPEXAMCOST	%EMPMEDEXAM	1-%FITBASE	#PLANTS	Item 13 Cost
ALL	Large	1	\$ 149.01	23%	76%	8	\$ 259.74
	Small	0	\$ 149.01	23%	97%	24	\$ -
Fiber, Flat and Container	Large	9	\$ 149.01	23%	76%	111	\$ 26,060.11
	small	1	\$ 149.01	23%	97%	6	\$ 276.25
SECTOR 22. PRINTING							
ALL	Large	0	\$ 149.01	23%	98%	78	\$ -
	Small	0	\$ 149.01	23%	100%	312	\$ -
SECTOR 24. CHROMIUM CATALYST USERS							
Chromium Catalyst Users	Large	1	\$ 149.01	23%	67%	1	\$ 27.12
	Small	0	\$ 149.01	23%	0%	0	\$ -
Chromium Catalyst Companies	Large	128	\$ 149.01	23%	0%	1	\$ -
	Small	0	\$ 149.01	23%	0%	1	\$ -
SECTOR 25. REFRACTORY BRICK PRODUCERS							
ALL	Large	0	\$ 149.01	23%	76%	5	\$ -
	Small	0	\$ 149.01	23%	97%	0	\$ -
SECTOR 26. WOODWORKING							
GENERAL INDUSTRY	Large	0	\$ 149.01	23%	94%	1	\$ -
	Small	0	\$ 149.01	23%	99%	1	\$ -
MARITIME	Large	0	\$ 149.01	23%	55%	36	\$ -
	Small	0	\$ 149.01	23%	95%	32	\$ -
CONSTRUCTION	Large	0	\$ 149.01	23%	88%	1	\$ -
	Small	0	\$ 149.01	23%	99%	1	\$ -
Government	State	0	\$ 149.01	23%	88%	1	\$ -
	Local	0	\$ 149.01	23%	88%	1	\$ -
SECTOR 27. SOLID WASTER INCINERATION							
ALL	Large	0	\$ 149.01	23%	59%	39	\$ -
	Small	0	\$ 149.01	23%	96%	47	\$ -
Government	State	0	\$ 149.01	23%	59%	0	\$ -
	Local	0	\$ 149.01	23%	96%	24	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS							
	Large	0	\$ 149.01	23%	56%	18	\$ -

Table 17

	Size	EMPAL	RESPEXAMCOST	%EMPMEDEXAM	1-%FITBASE	#PLANTS	Item 13 Cost
ALL	Small	0	\$ 149.01	23%	95%	0	\$ -
SECTOR 31. CONSTRUCTION							
INDUSTRIAL REHABILITATION AND MAINTENANCE	Large	0	\$ 149.01	23%	88%	54	\$ -
	Small	0	\$ 149.01	23%	99%	247	\$ -
	State	0	\$ 149.01	23%	88%	16	\$ -
	Local	0	\$ 149.01	23%	88%	93	\$ -
HAZARDOUS WASTE-SITE WORK	Large	0	\$ 149.01	23%	88%	1	\$ -
	Small	0	\$ 149.01	23%	99%	1	\$ -
	State	0	\$ 149.01	23%	88%	1	\$ -
	Local	0	\$ 149.01	23%	88%	1	\$ -
REFRACTORY BRICK RESTORATION	Large	0	\$ 149.01	23%	88%	47	\$ -
	Small	0	\$ 149.01	23%	99%	185	\$ -
Total		17,961				7,695	\$ 646,546

Table 18

Protective Work Clothing and Equipment, Removal and Storage (§§1910.1026(h)(2)(iv), 1915.1026(g)(2)(iv), and 1926.1126(g)(2)(iv)); Contract Cost to Obtain Cr(VI) Hazard-Warning Labels for Bags or Containers Used to Store Cr(VI)-Contaminated Protective Clothing or Equipment

This table calculates the contract cost for purchasing appropriate labels for glove disposal containers. OSHA estimates that 5% of the containers will need new or replacement labels. The number of replacement gloves used throughout the year is divided by 1,602. The factor of 1,602 is the estimated number of gloves that can fit into a thirty-gallon garbage bag.

$$\text{Cost} = \text{GLOVERPL}/1,602 * 5\% * \text{COST} * \#\text{PLANTS}$$

Variables:

GLOVEREPL = The number of glove replacements per year

NOGLOVESCONT = The number of gloves that can fit into a thirty-gallon container.

5% of containers need new or replacement labels.

COST = The cost of a label

#PLANTS = Number of model plants

COST = The cost of a label

		0					
Variables	Size	GLOVEREPL	NOGLOVESCONT	5% of containers need labels	COST	#PLANTS	Item 13 Cost
SECTOR 1. ELECTROPLATING							
ALL	Large	54,888,821	1,602	1713.13	\$0.45	1	\$766
	Small	11,970,179	1,602	373.60	\$0.45	1	\$167
SECTOR 2A. WELDING							
GENERAL INDUSTRY	Large	0	1,602	0.00	\$0.45	8,171	\$0
	Small	0	1,602	0.00	\$0.45	9,155	\$0
MARITIME	Large	0	1,602	0.00	\$0.45	197	\$0
	Small	0	1,602	0.00	\$0.45	112	\$0
CONSTRUCTION	Large	0	1,602	0.00	\$0.45	278	\$0
	Small	0	1,602	0.00	\$0.45	2,231	\$0
GOVERNMENT	State	0	1,602	0.00	\$0.45	26	\$0
	Local	0	1,602	0.00	\$0.45	819	\$0
SECTOR 2B. MILD STEEL WELDING							
GENERAL INDUSTRY	Large	0	1,602	0.00	\$0.45	10,955	\$0
	Small	0	1,602	0.00	\$0.45	11,152	\$0
	Large	0	1,602	0.00	\$0.45	425	\$0

Table 18

Variables	Size	GLOVEREPL	NOGLOVESCONT	5% of containers need labels	COST	#PLANTS	Item 13 Cost
MARITIME	Small	0	1,602	0.00	\$0.45	241	\$0
	Large	0	1,602	0.00	\$0.45	418	\$0
CONSTRUCTION	Small	0	1,602	0.00	\$0.45	3,158	\$0
SECTOR 3. PAINTING							
AEROSPACE	Large	125,000	1,602	3.90	\$0.45	50	\$86
	Small	1,000	1,602	0.03	\$0.45	62	\$1
AUTO BODY	Large	61,000	1,602	1.90	\$0.45	330	\$281
	Small	5,000	1,602	0.16	\$0.45	1,454	\$102
COIL COATING	Large	14,000	1,602	0.44	\$0.45	101	\$20
	Small	3,000	1,602	0.09	\$0.45	18	\$1
MARITIME	Large	5,000	1,602	0.16	\$0.45	274	\$19
	Small	2,000	1,602	0.06	\$0.45	474	\$13
CONSTRUCTION	Large	14,000	1,602	0.44	\$0.45	789	\$154
	Small	3,000	1,602	0.09	\$0.45	4,197	\$176
GOVERNMENT	State	5,000	1,602	0.16	\$0.45	17	\$1
	Local	59,000	1,602	1.84	\$0.45	945	\$779
SECTOR 4. PRODUCERS OF CHROMATES							
ALL	Large	75,000	1,602	2.34	\$0.45	2	\$2
	Small	0	1,602	0.00	\$0.45	0	\$0
SECTOR 5. CHROMATE PIGMENT PROCEDURES							
ALL	Large	24,000	1,602	0.75	\$0.45	2	\$1
	Small	3,000	1,602	0.09	\$0.45	1	\$0
SECTOR 6. CCA PRODUCERS							
ALL	Large	8,760	1,602	0.27	\$0.45	3	\$0
	Small	0	1,602	0.00	\$0.45	0	\$0
SECTOR 7. CHROMIUM CATALYST PRODUCERS							
ALL	Large	57,000	1,602	1.78	\$0.45	5	\$4

Table 18

Variables	Size	GLOVEREPL	NOGLOVESCONT	5% of containers need labels	COST	#PLANTS	Item 13 Cost
	Small	0	1,602	0.00	\$0.45	0	\$0
SECTOR 8. PAINT AND COATING PRODUCERS							
ALL	Large	12,000	1,602	0.37	\$0.45	78	\$13
	Small	6,000	1,602	0.19	\$0.45	123	\$10
SECTOR 9. PRINTING INK PRODUCERS							
ALL	Large	24,000	1,602	0.75	\$0.45	2	\$1
	Small	480	1,602	0.01	\$0.45	7	\$0
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS							
ALL	Large	583	1,602	0.02	\$0.45	79	\$1
	Small	120	1,602	0.00	\$0.45	39	\$0
SECTOR 11. PLATING MIXTURE PRODUCERS							
ALL	Large	14,400	1,602	0.45	\$0.45	6	\$1
	Small	2,880	1,602	0.09	\$0.45	4	\$0
SECTOR 13. CHROMIUM METAL PRODUCERS							
ALL	Large	0	1,602	0.00	\$0.45	1	\$0
	Small	0	1,602	0.00	\$0.45	0	\$0
SECTOR 14. IRON AND STEEL MILLS							
GENERAL INDUSTRY	Large	0	1,602	0.00	\$0.45	39	\$0
	Small	0	1,602	0.00	\$0.45	12	\$0
CARBON STEEL	Large	0	1,602	0.00	\$0.45	0	\$0
	Small	0	1,602	0.00	\$0.45	0	\$0
SECTOR 14.B FORGING INDUSTRY							
RESHAPING INDUSTRY	Large	0	1,602	0.00	\$0.45	33	\$0
	Small	0	1,602	0.00	\$0.45	31	\$0
SECTOR 15. IRON AND STEEL FOUNDRIES							
ALL	Large	0	1,602	0.00	\$0.45	152	\$0
	Small	0	1,602	0.00	\$0.45	111	\$0
SECTOR 17. CHROMIUM DYE PRODUCERS							
ALL	Large	3,840	1,602	0.12	\$0.45	2	\$0

Table 18

Variables	Size	GLOVEREPL	NOGLOVESCONT	5% of containers need labels	COST	#PLANTS	Item 13 Cost
	Small	840	1,602	0.03	\$0.45	1	\$0
SECTOR 18. CHROMIUM SULFATE PRODUCERS							
ALL	Large	0	1,602	0.00	\$0.45	0	\$0
	Small	2,000	1,602	0.06	\$0.45	5	\$0
SECTOR 19. CHEMICAL DISTRIBUTORS							
ALL	Large	0	1,602	0.00	\$0.45	212	\$0
	Small	0	1,602	0.00	\$0.45	1,600	\$0
SECTOR 20. TEXTILE DYEING							
ALL	Large	7,580	1,602	0.24	\$0.45	307	\$32
	Small	240	1,602	0.01	\$0.45	623	\$2
SECTOR 21. COLORED GLASS PRODUCERS							
ALL	Large	1,000	1,602	0.03	\$0.45	8	\$0
	Small	0	1,602	0.00	\$0.45	24	\$0
FIBER, FLAT, AND CONTAINER GLASS	Large	0	1,602	0.00	\$0.45	0	\$0
	Small	0	1,602	0.00	\$0.45	0	\$0
SECTOR 22. PRINTING							
ALL	Large	5,460	1,602	0.17	\$0.45	78	\$6
	Small	360	1,602	0.01	\$0.45	312	\$2
SECTOR 24. CHROMIUM CATALYST USERS							
Chromium Catalyst Users	Large	2,000	1,602	0.06	\$0.45	193	\$5
	Small	0	1,602	0.00	\$0.45	0	\$0
Catalyst Service Companies	Large	30,000	1,602	0.94	\$0.45	25	\$10
	Small	15,000	1,602	0.47	\$0.45	5	\$1
SECTOR 25. REFRACTORY BRICK PRODUCERS							
ALL	Large	11,000	1,602	0.34	\$0.45	5	\$1
	Small	0	1,602	0.00	\$0.45	0	\$0
SECTOR 26. WOODWORKING							
GENERAL INDUSTRY	Large	0	1,602	0.00	\$0.45	143	\$0
	Small	0	1,602	0.00	\$0.45	76	\$0

Table 18

Variables	Size	GLOVEREPL	NOGLOVESCONT	5% of containers need labels	COST	#PLANTS	Item 13 Cost
MARITIME	Large	0	1,602	0.00	\$0.45	36	\$0
	Small	0	1,602	0.00	\$0.45	32	\$0
CONSTRUCTION	Large	2,000	1,602	0.06	\$0.45	1,232	\$34
	Small	1,000	1,602	0.03	\$0.45	4,932	\$69
GOVERNMENT	State	1,000	1,602	0.03	\$0.45	17	\$0
	Local	1,000	1,602	0.03	\$0.45	62	\$1
SECTOR 27. SOLID WASTER INCINERATION							
ALL	Large	20,000	1,602	0.62	\$0.45	39	\$11
	Small	3,000	1,602	0.09	\$0.45	47	\$2
GOVERNMENT	State	20,000	1,602	0.62	\$0.45	0	\$0
	Local	3,000	1,602	0.09	\$0.45	24	\$1
SECTOR 30. SUPERALLOY PRODUCERS AND USERS							
ALL	Large	0	1,602	0.00	\$0.45	18	\$0
	Small	0	1,602	0.00	\$0.45	0	\$0
SECTOR 31. CONSTRUCTION							
INDUSTRIAL REHABILITATION AND MAINTENANCE	Large	0	1,602	0.00	\$0.45	0	\$0
	Small	0	1,602	0.00	\$0.45	0	\$0
	State	0	1,602	0.00	\$0.45	0	\$0
	Local	0	1,602	0.00	\$0.45	0	\$0
HAZARDOUS WASTE-SITE WORK	Large	14,000	1,602	0.44	\$0.45	43	\$8
	Small	3,000	1,602	0.09	\$0.45	180	\$8
	State	2,000	1,602	0.06	\$0.45	1	\$0
	Local	3,000	1,602	0.09	\$0.45	252	\$11
REFRACTORY BRICK RESTORATION	Large	14,000	1,602	0.44	\$0.45	47	\$9
	Small	1,000	1,602	0.03	\$0.45	185	\$3
Total						67,548	\$2,816

Table 18a

TABLE 18 (a): Protective Work Clothing and Equipment, Removal and Storage (§§1910.1026(h)(2)(iv), 1915.1026(g)(2)(iv), and 1926.1126(g)(2)(iv)); Clerical Time and Cost to Affix Cr(VI) Hazard-Warning Labels for Bags or Containers Used to Store Cr(VI)-Contaminated Protective Clothing or Equipment
 OSHA assumes that it will take 1 minute of clerical employee time to obtain and affix Cr(VI) hazard-warning labels to glove disposal containers. OSHA assumes the number of labels will be the same as the number of containers needing labels, as calculated in Table 18.

BURDEN HOURS = 5% OF CONTAINERS NEED LABELS * #PLANTS * AFFIX
COST = BURDEN HOURS * HCLWAGE

Variables:

GLOVEREPL = The number of glove replacements per year
NOGLOVESCONT = The number of gloves that can fit into a thirty-gallon container.
 5% of containers need new or replacement labels = see Table 18
HCLWAGE = Highest clerical wage rate (overestimation)
AFFIX = 1 minute for a clerical worker to obtain and affix label
#PLANTS = Number of model plants
COST = The cost to obtain and affix the label

VARIABLES	SIZE	GLOVEREPL	NOGLOVESCONT	5% OF CONTAINERS NEED LABELS	#PLANTS	RESPONDENTS	RESPONSES	AFFIX	BURDEN HOURS	HCLWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING											
All	Large	54,888,821	1,602	1713	1	1,713	1,713	0.02	29	\$26.65	\$ 761
	Small	11,970,179	1,602	374	1	374	374	0.02	6	\$26.65	\$ 166
SECTOR 2A. WELDING											
General Industry	Large	0	1,602	0	8,171	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	0	9,155	-	-	0.02	-	\$26.65	\$ -
Maritime	Large	0	1,602	0	197	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	0	112	-	-	0.02	-	\$26.65	\$ -
Construction	Large	0	1,602	0	278	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	0	2,231	-	-	0.02	-	\$26.65	\$ -
Government	State	0	1,602	0	26	-	-	0.02	-	\$26.65	\$ -
	Local	0	1,602	0	819	-	-	0.02	-	\$26.65	\$ -
SECTOR 2B. MILD STEEL WELDING											
General Industry	Large	0	1,602	0	10,955	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	0	11,152	-	-	0.02	-	\$26.65	\$ -
Maritime	Large	0	1,602	0	425	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	0	241	-	-	0.02	-	\$26.65	\$ -
Construction	Large	0	1,602	0	418	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	0	3,158	-	-	0.02	-	\$26.65	\$ -
SECTOR 3. PAINTING											
Aerospace	Large	125,000	1,602	3.90	50	193	193	0.02	3	\$26.65	\$ 86
	Small	1,000	1,602	0.03	62	2	2	0.02	0.03	\$26.65	\$ 1
Auto Body	Large	61,000	1,602	1.90	330	629	629	0.02	10	\$26.65	\$ 279
	Small	5,000	1,602	0.16	1,454	227	227	0.02	4	\$26.65	\$ 101
Coil Coating	Large	14,000	1,602	0.44	101	44	44	0.02	1	\$26.65	\$ 20
	Small	3,000	1,602	0.09	18	2	2	0.02	0.03	\$26.65	\$ 1
Maritime	Large	5,000	1,602	0.16	274	43	43	0.02	1	\$26.65	\$ 19

Table 18a

VARIABLES	SIZE	GLOVEREPL	NOGLOVESCONT	5% OF CONTAINERS NEED LABELS	#PLANTS	RESPONDENTS	RESPONSES	AFFIX	BURDEN HOURS	HCLWAGE	ITEM 12 COST
	Small	2,000	1,602	0.06	474	30	30	0.02	0.5	\$26.65	\$ 13
Construction	Large	14,000	1,602	0.44	789	345	345	0.02	6	\$26.65	\$ 153
	Small	3,000	1,602	0.09	4,197	393	393	0.02	7	\$26.65	\$ 175
Government	State	5,000	1,602	0.16	17	3	3	0.02	0.04	\$26.65	\$ 1
	Local	59,000	1,602	1.84	945	1,740	1,740	0.02	29	\$26.65	\$ 773
SECTOR 4. PRODUCERS OF CHROMATES											
All	Large	75,000	1,602	2	2	4	4	0.02	0.07	\$26.65	\$ 2
	Small	0	1,602	-	-	-	-	0.02	-	\$26.65	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES											
All	Large	24,000	1,602	1	2	1	1	0.02	0.02	\$26.65	\$ 1
	Small	3,000	1,602	0	1	0.1	0.1	0.02	0.001	\$26.65	\$ 0.03
SECTOR 6. CCA PRODUCERS											
All	Large	8,760	1,602	0	3	1	1	0.02	0.01	\$26.65	\$ 0.3
	Small	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS											
All	Large	57,000	1,602	2	5	8	8	0.02	0.14	\$26.65	\$ 4
	Small	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS											
All	Large	12,000	1,602	0.4	78	29	29	0.02	0.49	\$26.65	\$ 13
	Small	6,000	1,602	0.2	123	23	23	0.02	0.4	\$26.65	\$ 10
SECTOR 9. PRINTING INK PRODUCERS											
All	Large	24,000	1,602	1	2	2	2	0.02	0.03	\$26.65	\$ 1
	Small	480	1,602	0.01	7	\$ 0.1	\$ 0.1	0.02	0.002	\$26.65	\$ 0.05
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS											
All	Large	583	1,602	0.02	79	1	1	0.02	0.02	\$26.65	\$ 1
	Small	120	1,602	0.004	39	0.1	0.1	0.02	0.002	\$26.65	0.1
SECTOR 11. PLATING MIXTURE PRODUCERS											
All	Large	14,400	1,602	0.4	6	3	3	0.02	0.04	\$26.65	\$ 1
	Small	2,880	1,602	0.1	4	0.4	0.4	0.02	0.006	\$26.65	0.2
SECTOR 13. CHROMIUM METAL PRODUCERS											
All	Large	0	1,602	-	1	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
SECTOR 14. IRON AND STEEL MILLS											
General Industry	Large	0	1,602	-	39	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	-	12	-	-	0.02	-	\$26.65	\$ -
Carbon Steel	Large	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
SECTOR 14.B FORGING INDUSTRY											
Reshaping Industry	Large	0	1,602	-	33	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	-	31	-	-	0.02	-	\$26.65	\$ -
SECTOR 15. IRON AND STEEL FOUNDRIES											

Table 18a

VARIABLES	SIZE	GLOVEREPL	NOGLOVESCONT	5% OF CONTAINERS NEED LABELS	#PLANTS	RESPONDENTS	RESPONSES	AFFIX	BURDEN HOURS	HCLWAGE	ITEM 12 COST
All	Large	0	1,602	-	152	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	-	111	-	-	0.02	-	\$26.65	\$ -
SECTOR 17. CHROMIUM DYE PRODUCERS											
All	Large	3,840	1,602	0.1	2	0.3	0.3	0.02	0.005	\$26.65	\$ 0.1
	Small	840	1,602	0.03	1	0.02	0.02	0.02	0.0004	\$26.65	\$ 0.01
SECTOR 18. CHROMIUM SULFATE PRODUCERS											
All	Large	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
	Small	2,000	1,602	0.1	5	0.3	0.3	0.02	0.005	\$26.65	\$ 0.1
SECTOR 19. CHEMICAL DISTRIBUTORS											
All	Large	0	1,602	-	212	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	-	1,600	-	-	0.02	-	\$26.65	\$ -
SECTOR 20. TEXTILE DYEING											
All	Large	7,580	1,602	0.2	307	73	73	0.02	1.21	\$26.65	\$ 32
	Small	240	1,602	0.01	623	5	5	0.02	0.1	\$26.65	\$ 2
SECTOR 21. COLORED GLASS PRODUCERS											
All	Large	1,000	1,602	0.03	8	0.2	0.2	0.02	0.004	\$26.65	\$ 0.1
	Small	0	1,602	-	24	-	-	0.02	-	\$26.65	\$ -
Fiber, Flat, and Container Glass	Large	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
SECTOR 22. PRINTING											
All	Large	5,460	1,602	0.2	78	13	13	0.02	0.22	\$26.65	\$ 6
	Small	360	1,602	0.01	312	4	4	0.02	0.1	\$26.65	\$ 2
SECTOR 24. CHROMIUM CATALYST USERS											
Chromium Catalyst Users	Large	2,000	1,602	0.1	193	12	12	0.02	0.20	\$26.65	\$ 5
	Small	0	1,602	-	-	-	-	0.02	-	\$26.65	\$ -
Catalyst Service Companies	Large	30,000	1,602	1	25	23	23	0.02	0.39	\$26.65	\$ 10
	Small	15,000	1,602	0.5	5	2	2	0.02	0.04	\$26.65	\$ 1
SECTOR 25. REFRACTORY BRICK PRODUCERS											
All	Large	11,000	1,602	0.3	5	2	2	0.02	0.03	\$26.65	\$ 1
	Small	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
SECTOR 26. WOODWORKING											
General Industry	Large	0	1,602	-	143	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	-	76	-	-	0.02	-	\$26.65	\$ -
Maritime	Large	0	1,602	-	36	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	-	32	-	-	0.02	-	\$26.65	\$ -
Construction	Large	2,000	1,602	0.1	1,232	77	77	0.02	1.28	\$26.65	\$ 34
	Small	1,000	1,602	0.03	4,932	154	154	0.02	3	\$26.65	\$ 68
Government	State	1,000	1,602	0.03	17	1	1	0.02	0.01	\$26.65	\$ 0.2
	Local	1,000	1,602	0.03	62	2	2	0.02	0.03	\$26.65	\$ 1
SECTOR 27. SOLID WASTER INCINERATION											

Table 18a

VARIABLES	SIZE	GLOVEREPL	NOGLOVESCONT	5% OF CONTAINERS NEED LABELS	#PLANTS	RESPONDENTS	RESPONSES	AFFIX	BURDEN HOURS	HCLWAGE	ITEM 12 COST
All	Large	20,000	1,602	1	39	25	25	0.02	0.41	\$26.65	\$ 11
	Small	3,000	1,602	0.1	47	4	4	0.02	0	\$26.65	\$ 2
Government	State	20,000	1,602	1	0	-	-	0.02	-	\$26.65	\$ -
	Local	3,000	1,602	0	24	2	2	0.02	0	\$26.65	\$ 1
SECTOR 30. SUPERALLOY PRODUCERS AND USERS											
All	Large	0	1,602	-	18	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
SECTOR 31. CONSTRUCTION											
Industrial Rehabilitation and Maintenance	Large	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
	Small	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
	State	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
	Local	0	1,602	-	0	-	-	0.02	-	\$26.65	\$ -
Hazardous Waste-Site Work	Large	14,000	1,602	0	43	19	19	0.02	0.31	\$26.65	\$ 8
	Small	3,000	1,602	0	180	17	17	0.02	0.3	\$26.65	\$ 7
	State	2,000	1,602	0	1	0.1	0.1	0.02	0.001	\$26.65	\$ 0.02
	Local	3,000	1,602	0	252	24	24	0.02	0.4	\$26.65	\$ 10
Refractory Brick Restoration	Large	14,000	1,602	0	47	20	20	0.02	0.34	\$26.65	\$ 9
	Small	1,000	1,602	0	185	6	6	0.02	0.1	\$26.65	\$ 3
Total/Average					67,548	6,295	6,295	0.02	105	\$26.65	\$ 2,798

Table 19

TABLE 19: Protective Work Clothing and Equipment, Cleaning and Replacement (§§ 1910.1026(h)(3)(iii), 1915.1026(g)(3)(iii), and 1926.1126(g)(3)(iii))**Employer Time and Cost to Inform Laundry Contractor About Cr(VI)-Contaminated Protective Clothing or Equipment**

The laundering company will be informed of the presence of hexavalent chromium in the laundry at the commencement of the laundering agreement.

Laundering facilities typically collect dirty uniforms for cleaning. It is estimated that the laundering facility will assume the cost burden for labeling the contaminated laundry and include the cost in their laundering fee. For purposes of calculating burden hours, OSHA assumes that it will take a maximum of five minutes to notify the laundry, and that 25% of the plants will need to annually notify or reinform the laundry.

$$\text{BURDEN HOURS} = \text{\#PLANTS} * \text{NOTIME}$$

$$\text{COST} = \text{Hours} * \text{SUPEWAGE}$$

Variables:

\#PLANTS = Number of plants represented by the model plant

\#PLANTS * 25% = Number of plants represented by the model plant * 25% need to notify or reinform

NOTIME = Time to notify the laundry.

SUPEWAGE = Supervisory Wage Rate

VARIABLES	SIZE	\#PLANTS	\# of PLANTS * 25%	RESPONDENTS	RESPONSES	NOTIME	BURDEN HOURS	SUPWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING									
All	Large	1	0.25	0.25	0.25	0.08	0.02	\$43.90	\$ 1
	Small	1	0.25	0.25	0.25	0.08	0.02	\$43.90	\$ 1
SECTOR 2A. WELDING									
General Industry	Large	8,171	2,043	2,043	2,043	0.08	170	\$43.90	\$ 7,473
	Small	9,155	2,289	2,289	2,289	0.08	191	\$43.90	\$ 8,374
Maritime	Large	197	49	49	49	0.08	4	\$43.90	\$ 180
	Small	112	28	28	28	0.08	2	\$43.90	\$ 102
Construction	Large	278	70	70	70	0.08	6	\$43.90	\$ 255
	Small	2,231	558	558	558	0.08	46	\$43.90	\$ 2,040
Government	State	26	7	7	7	0.08	1	\$43.90	\$ 24
	Local	819	205	205	205	0.08	17	\$43.90	\$ 749
SECTOR 2B. MILD STEEL WELDING									
General Industry	Large	10,955	2,739	2,739	2,739	0.08	228	\$43.90	\$ 10,020
	Small	11,152	2,788	2,788	2,788	0.08	232	\$43.90	\$ 10,200
Maritime	Large	425	106	106	106	0.08	9	\$43.90	\$ 389
	Small	241	60	60	60	0.08	5	\$43.90	\$ 221
Construction	Large	418	104	104	104	0.08	9	\$43.90	\$ 382
	Small	3,158	789	789	789	0.08	66	\$43.90	\$ 2,888
SECTOR 3. PAINTING									
Aerospace	Large	50	12	12	12	0.08	1	\$43.90	\$ 45
	Small	62	16	16	16	0.08	1	\$43.90	\$ 57
Autobody	Large	330	83	83	83	0.08	7	\$43.90	\$ 302
	Small	1,454	364	364	364	0.08	30	\$43.90	\$ 1,330
Coil Coating	Large	101	25	25	25	0.08	2	\$43.90	\$ 92
	Small	18	5	5	5	0.08	0.4	\$43.90	\$ 17
Maritime	Large	274	69	69	69	0.08	6	\$43.90	\$ 251
	Small	474	119	119	119	0.08	10	\$43.90	\$ 434

Table 19

VARIABLES	SIZE	# PLANTS	# of PLANTS *25%	RESPONDENTS	RESPONSES	NOTIME	BURDEN HOURS	SUPWAGE	ITEM 12 COST
Construction	Large	789	197	197	197	0.08	16	\$43.90	\$ 722
	Small	4,197	1,049	1,049	1,049	0.08	87	\$43.90	\$ 3,839
Government	State	17	4	4	4	0.08	0.4	\$43.90	\$ 16
	Local	945	236	236	236	0.08	20	\$43.90	\$ 864
SECTOR 4. PRODUCERS OF CHROMATES									
All	Large	2	0.5	0.5	0.5	0.08	0.04	\$43.90	\$ 2
	Small	0	-	-	-	0.08	-	\$43.90	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES									
All	Large	2	0.4	0.4	0.4	0.08	0.03	\$43.90	\$ 2
	Small	1	0.2	0.2	0.2	0.08	0.02	\$43.90	\$ 1
SECTOR 6. CCA PRODUCERS									
All	Large	3	1	1	1	0.08	0.1	\$43.90	\$ 2
	Small	0	-	-	-	0.08	-	\$43.90	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS									
All	Large	5	1	1	1	0.08	0.1	\$43.90	\$ 4
	Small	0	-	-	-	0.08	-	\$43.90	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS									
All	Large	78	20	20	20	0.08	2	\$43.90	\$ 72
	Small	123	31	31	31	0.08	3	\$43.90	\$ 112
SECTOR 9. PRINTING INK PRODUCERS									
All	Large	2	1	1	1	0.08	0.05	\$43.90	\$ 2
	Small	7	2	2	2	0.08	0.2	\$43.90	\$ 7
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS									
All	Large	79	20	20	20	0.08	2	\$43.90	\$ 72
	Small	39	10	10	10	0.08	1	\$43.90	\$ 35
SECTOR 11. PLATING MIXTURE PRODUCERS									
All	Large	6	1	1	1	0.08	0	\$43.90	\$ 5
	Small	4	1	1	1	0.08	0	\$43.90	\$ 4
SECTOR 13. CHROMIUM METAL PRODUCERS									
All	Large	1	0.3	0.3	0.3	0.08	0.02	\$43.90	\$ 1
	Small	0	-	-	-	0.08	-	\$43.90	\$ -
SECTOR 14. IRON AND STEEL MILLS									
General Industry	Large	39	10	10	10	0.08	1	\$43.90	\$ 35
	Small	12	3	3	3	0.08	0.3	\$43.90	\$ 11
Carbon Steel	Large	0	-	-	-	0.08	-	\$43.90	\$ -
	Small	0	-	-	-	0.08	-	\$43.90	\$ -
SECTOR 14.B FORGING INDUSTRY									
Reshaping Industry	Large	33	8	8	8	0.08	1	\$43.90	\$ 30
	Small	31	8	8	8	0.08	1	\$43.90	\$ 29
SECTOR 15. IRON AND STEEL FOUNDRIES									
All	Large	152	38	38	38	0.08	3	\$43.90	\$ 139

Table 19

VARIABLES	SIZE	# PLANTS	# of PLANTS *25%	RESPONDENTS	RESPONSES	NOTIME	BURDEN HOURS	SUPWAGE	ITEM 12 COST
	Small	111	28	28	28	0.08	2	\$43.90	\$ 101
SECTOR 17. CHROMIUM DYE PRODUCERS									
All	Large	2	1	1	1	0.08	0.1	\$43.90	\$ 2
	Small	1	0.2	0.2	0.2	0.08	0.02	\$43.90	\$ 1
SECTOR 18. CHROMIUM SULFATE PRODUCERS									
All	Large	0	-	-	-	0.08	-	\$43.90	\$ -
	Small	5	1	1	1	0.08	0.1	\$43.90	\$ 4
SECTOR 19. CHEMICAL DISTRIBUTORS									
All	Large	212	53	53	53	0.08	4	\$43.90	\$ 194
	Small	1,600	400	400	400	0.08	33	\$43.90	\$ 1,463
SECTOR 20. TEXTILE DYEING									
All	Large	307	77	77	77	0.08	6	\$43.90	\$ 281
	Small	623	156	156	156	0.08	13	\$43.90	\$ 570
SECTOR 21. COLORED GLASS PRODUCERS									
All	Large	8	2	2	2	0.08	0.2	\$43.90	\$ 7
	Small	24	6	6	6	0.08	1	\$43.90	\$ 22
Fiber, Flat, and Container Glass	Large	0	-	-	-	0.08	-	\$43.90	\$ -
	Small	0	-	-	-	0.08	-	\$43.90	\$ -
SECTOR 22. PRINTING									
All	Large	78	19	19	19	0.08	2	\$43.90	\$ 71
	Small	312	78	78	78	0.08	6	\$43.90	\$ 285
SECTOR 24. CHROMIUM CATALYST USERS									
Chromium Catalyst Users	Large	193	48	48	48	0.08	4	\$43.90	\$ 176
	Small	0	-	-	-	0.08	-	\$43.90	\$ -
Catalyst Service Companies	Large	25	6	6	6	0.08	1	\$43.90	\$ 23
	Small	5	1	1	1	0.08	0.1	\$43.90	\$ 4
SECTOR 25. REFRACTORY BRICK PRODUCERS									
All	Large	5	1	1	1	0.08	0.1	\$43.90	\$ 5
	Small	0	-	-	-	0.08	-	\$43.90	\$ -
SECTOR 26. WOODWORKING									
General Industry	Large	143	36	36	36	0.08	3	\$43.90	\$ 131
	Small	76	19	19	19	0.08	2	\$43.90	\$ 70
Maritime	Large	36	9	9	9	0.08	1	\$43.90	\$ 33
	Small	32	8	8	8	0.08	1	\$43.90	\$ 29
Construction	Large	1,232	308	308	308	0.08	26	\$43.90	\$ 1,127
	Small	4,932	1,233	1,233	1,233	0.08	103	\$43.90	\$ 4,511
Government	State	17	4	4	4	0.08	0.4	\$43.90	\$ 16
	Local	62	15	15	15	0.08	1	\$43.90	\$ 56
SECTOR 27. SOLID WASTER INCINERATION									
All	Large	39	10	10	10	0.08	1	\$43.90	\$ 36
	Small	47	12	12	12	0.08	1	\$43.90	\$ 43

Table 19

VARIABLES	SIZE	#PLANTS	# of PLANTS *25%	RESPONDENTS	RESPONSES	NOTIME	BURDEN HOURS	SUPWAGE	ITEM 12 COST
Government	State	0	-	-	-	0.08	-	\$43.90	\$ -
	Local	24	6	6	6	0.08	0.5	\$43.90	\$ 22
SECTOR 30. SUPERALLOY PRODUCERS AND USERS									
All	Large	18	4	4	4	0.08	0.4	\$43.90	\$ 16
	Small	0	-	-	-	0.08	-	\$43.90	\$ -
SECTOR 31. CONSTRUCTION									
Industrial Rehabilitation and Maintenance	Large	0	-	-	-	0.08	-	\$43.90	\$ -
	Small	0	-	-	-	0.08	-	\$43.90	\$ -
	State	0	-	-	-	0.08	-	\$43.90	\$ -
	Local	0	-	-	-	0.08	-	\$43.90	\$ -
Hazardous Waste-Site Work	Large	43	11	11	11	0.08	1	\$43.90	\$ 39
	Small	180	45	45	45	0.08	4	\$43.90	\$ 165
	State	1	0.2	0.2	0.2	0.08	0.02	\$43.90	\$ 1
	Local	252	63	63	63	0.08	5	\$43.90	\$ 231
Refractory Brick Restoration	Large	47	12	12	12	0.08	1	\$43.90	\$ 43
	Small	185	46	46	46	0.08	4	\$43.90	\$ 170
Average/Total			16,887	16,887	16,887	0.08	1,407	\$43.90	\$ 61,767

Table 20

TABLE 20: Initial Medical Examination (§§ 1910.1026(k)(1)(i)(A), (k)(3)(i), and (k)(3)(ii); 1915.1026(i)(1)(i)(A), (i)(3)(i), and (i)(3)(ii); and 1926.1126(i)(1)(i)(A), (i)(3)(i), and (i)(3)(ii)) Employee Time and Cost to Complete the Initial Medical Examination

This table calculates the burden hours and costs of employee time to complete the initial medical examinations for those employees who are potentially exposed to airborne hexavalent chromium at or above the action level or who show "signs or symptoms" of exposure to hexavalent chromium before the implementation of engineering controls. For purposes of estimating the ICR costs, the Agency assumes that: all initial monitoring is completed, existing employers will experience a 5% turnover of potentially exposed employees with initial medical examinations, and new employers will have no employees requiring an initial medical examination.

$$\text{BURDEN HOURS} = (\text{POTEXEMP} * 5\%) * \text{MEDEXAMTIME} * \# \text{PLANTS}$$

$$\text{COST} = (\text{POTEXEMP} * 5\%) \text{ MEDEXAMTIME} * \text{NONSUPWAGE} * \# \text{PLANTS}$$

Variables:

POTEXEMP = Total number of potentially exposed employees at or above the AL and workers with "signs and symptoms" before the implementation of engineering controls * 5%

POTEXEMP * 5% = Total number of potentially exposed employees at or above the AL and workers with "signs and symptoms" before the implementation of engineering controls * 5%

MEDEXAMTIME = Employee time, in hours, for a medical examination.

NONSUPWAGE = Non-supervisory wage rate

#PLANTS = Number of Plants

VARIABLES	SIZE	POTEXEMP	POTEXEMP * 5%	#PLANTS	RESPONDENTS	RESPONSES	MEDEXAMTIME	BURDEN HOURS	NONSUPWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING										
All	Large	5	0.25	1,752	438	438	3	1,314	\$32.54	\$ 42,769
	Small	1	0.05	3,297	165	165	3	495	\$32.54	\$ 16,093
SECTOR 2A. WELDING										
General Industry	Large	2	0.1005	8,171	821	821	3	2,463	\$32.54	\$ 80,146
	Small	0	0	9,155	-	-	3	-	\$32.54	\$ -
Maritime	Large	19	0.9545	197	188	188	3	564	\$32.54	\$ 18,351
	Small	1	0.0502	112	6	6	3	17	\$32.54	\$ 547
Construction	Large	51	2.5621	278	713	713	3	2,139	\$32.54	\$ 69,615
	Small	5	0.2512	2,231	560	560	3	1,681	\$32.54	\$ 54,699
Government	Local	2	0.1005	26	3	3	3	8	\$32.54	\$ 256
	State	0	0	819	-	-	3	-	\$32.54	\$ -
SECTOR 2B. MILD STEEL WELDING										
General Industry	Large	1	0.0502	10,955	550	550	3	1,651	\$32.54	\$ 53,728
	Small	0	0	11,152	-	-	3	-	\$32.54	\$ -
Maritime	Large	0	0	425	-	-	3	-	\$32.54	\$ -
	Small	1	0.0502	241	12	12	3	36	\$32.54	\$ 1,183
Construction	Large	19	0.9545	418	399	399	3	1,197	\$32.54	\$ 38,949
	Small	2	0.1005	3,158	317	317	3	952	\$32.54	\$ 30,976
SECTOR 3. PAINTING										
GENERAL INDUSTRY										
Aerospace	Large	47	2.3399	50	116	116	3	348	\$32.54	\$ 11,319
	Small	1	0.0459	62	3	3	3	9	\$32.54	\$ 279
Autobody	Large	12	0.5964	330	197	197	3	591	\$32.54	\$ 19,235
	Small	1	0.0459	1,454	67	67	3	200	\$32.54	\$ 6,514
Coil Coating	Large	2	0.0918	101	9	9	3	28	\$32.54	\$ 904
	Small	1	0.0459	18	1	1	3	3	\$32.54	\$ 82

Table 20

VARIABLES	SIZE	POTEXEMP	POTEXEMP * 5%	#PLANTS	RESPONDENTS	RESPONSES	MEDEXAMTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Maritime	Large	3	0.1282	274	35	35	3	106	\$32.54	\$ 3,435
	Small	1	0.0427	474	20	20	3	61	\$32.54	\$ 1,980
Construction	Large	2	0.1121	789	89	89	3	266	\$32.54	\$ 8,642
	Small	1	0.0374	4,197	157	157	3	471	\$32.54	\$ 15,315
Government	Local	9	0.4597	17	8	8	3	24	\$32.54	\$ 766
	State	1	0.0328	945	31	31	3	93	\$32.54	\$ 3,030
SECTOR 4. PRODUCERS OF CHROMATES										
All	Large	7	0.35	2	1	1	3	2	\$32.54	\$ 64
	Small	0	0	0	-	-	3	-	\$32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES										
All	Large	20	1	2	2	2	3	5	\$32.54	\$ 163
	Small	2	0.1	1	0.1	0.1	3	0.2	\$32.54	\$ 8
SECTOR 6. CCA PRODUCERS										
All	Large	3	0.15	3	0.4	0.4	3	1	\$32.54	\$ 38
	Small	0	0	0	-	-	3	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS										
All	Large	24	1.2	5	6	6	3	17	\$32.54	\$ 545
	Small	0	0	0	-	-	3	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS										
All	Large	5	0.25	78	20	20	3	59	\$32.54	\$ 1,909
	Small	2	0.1	123	12	12	3	37	\$32.54	\$ 1,200
SECTOR 9. PRINTING INK PRODUCERS										
All	Large	0	0	2	-	-	3	-	\$32.54	\$ -
	Small	0	0	7	-	-	3	-	\$32.54	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS										
All	Large	0	0	79	-	-	3	-	\$32.54	\$ -
	Small	0	0	39	-	-	3	-	\$32.54	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS										
All	Large	3	0.15	6	1	1	3	3	\$32.54	\$ 87
	Small	1	0.05	4	0.2	0.2	3	1	\$32.54	\$ 19
SECTOR 13. CHROMIUM METAL PRODUCERS										
All	Large	14	0.7	1	1	1	3	2	\$32.54	\$ 65
	Small	0	0	0	-	-	3	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS										
Alloy Stainless Steel	Large	42	2.0822	39	81	81	3	242	\$32.54	\$ 7,871
	Small	1	0.0731	12	1	1	3	3	\$32.54	\$ 89
Carbon Steel	Large	10	0.5114	116	59	59	3	178	\$32.54	\$ 5,800
	Small	1	0.0731	37	3	3	3	8	\$32.54	\$ 261
SECTOR 14.B FORGING INDUSTRY										
Reshaping	Large	3	0.15	33	5	5	3	15	\$32.54	\$ 486
	Small	0	0	31	-	-	3	-	\$32.54	\$ -

Table 20

VARIABLES	SIZE	POTEXEMP	POTEXEMP * 5%	#PLANTS	RESPONDENTS	RESPONSES	MEEXAMTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 15. IRON AND STEEL FOUNDRIES										
All	Large	23	1.15	152	175	175	3	525	\$32.54	\$ 17,082
	Small	5	0.25	111	28	28	3	83	\$32.54	\$ 2,701
SECTOR 17. CHROMIUM DYE PRODUCERS										
All	Large	0	0	2	-	-	3	-	\$32.54	\$ -
	Small	0	0	1	-	-	3	-	\$32.54	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS										
All	Large	0	0	0	-	-	3	-	\$32.54	\$ -
	Small	3	0.15	5	1	1	3	2	\$32.54	\$ 68
SECTOR 19. CHEMICAL DISTRIBUTORS										
All	Large	0	0	212	-	-	3	-	\$32.54	\$ -
	Small	0	0	1,600	-	-	3	-	\$32.54	\$ -
SECTOR 20. TEXTILE DYEING										
All	Large	0	0	307	-	-	3	-	\$32.54	\$ -
	Small	0	0	623	-	-	3	-	\$32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS										
All	Large	1	0.0645	8	0.5	0.5	3	1	\$32.54	\$ 49
	Small	0	0	24	-	-	3	-	\$32.54	\$ -
Fiber, Flat and Container Glass	Large	14	0.709	111	79	79	3	236	\$32.54	\$ 7,674
	Small	3	0.1289	6	1	1	3	2	\$32.54	\$ 81
SECTOR 22. PRINTING										
All	Large	0	0	78	-	-	3	-	\$32.54	\$ -
	Small	0	0	312	-	-	3	-	\$32.54	\$ -
SECTOR 24. CHROMIUM CATALYST USERS										
Catalyst Users	Large	1	0.0591	193	11	11	3	34	\$32.54	\$ 1,110
	Small	0	0	0	-	-	3	-	\$32.54	\$ -
Chromium Catalyst Service Companies	Large	12	0.5906	25	15	15	3	44	\$32.54	\$ 1,430
	Small	6	0.2953	5	1	1	3	4	\$32.54	\$ 136
SECTOR 25. REFRACTORY BRICK PRODUCERS										
All	Large	0	0	5	-	-	3	-	\$32.54	\$ -
	Small	0	0	0	-	-	3	-	\$32.54	\$ -
SECTOR 26. WOODWORKING										
General Industry	Large	1	0.0382	143	5	5	3	16	\$32.54	\$ 521
	Small	0	0	76	-	-	3	-	\$32.54	\$ -
Maritime	Large	0	0	36	-	-	3	-	\$32.54	\$ -
	Small	0	0	32	-	-	3	-	\$32.54	\$ -
Construction	Large	2	0.1241	1,232	153	153	3	459	\$32.54	\$ 14,934
	Small	1	0.0414	4,932	204	204	3	612	\$32.54	\$ 19,915
Government	State	1	0.0328	17	1	1	3	2	\$32.54	\$ 55
	Local	1	0.0328	62	2	2	3	6	\$32.54	\$ 198
SECTOR 27. SOLID WASTER INCINERATION										

Table 20

VARIABLES	SIZE	POTEXEMP	POTEXEMP * 5%	#PLANTS	RESPONDENTS	RESPONSES	MEDEXAMTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
All	Large	0	0	39	-	-	3	-	\$32.54	\$ -
	Small	0	0	47	-	-	3	-	\$32.54	\$ -
Government	State	0	0	0	-	-	3	-	\$32.54	\$ -
	Local	0	0	24	-	-	3	-	\$32.54	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS										
All	Large	2	0.1	18	2	2	3	5	\$32.54	\$ 171
	Small	0	0	0	-	-	3	-	\$32.54	\$ -
SECTOR 31. CONSTRUCTION										
Industrial Rehabilitation & Maintenance	Large	0	0	54	-	-	3	-	\$32.54	\$ -
	Small	0	0	247	-	-	3	-	\$32.54	\$ -
	State Gov't	0	0	16	-	-	3	-	\$32.54	\$ -
	Local Gov't	0	0	93	-	-	3	-	\$32.54	\$ -
Hazardous Waste Site Work	Large	0	0	43	-	-	3	-	\$32.54	\$ -
	Small	0	0	180	-	-	3	-	\$32.54	\$ -
	State Gov't	0	0	1	-	-	3	-	\$32.54	\$ -
	Local Gov't	0	0	252	-	-	3	-	\$32.54	\$ -
Refractory Brick Restoration	Large	11	0.5586	47	26	26	3	79	\$32.54	\$ 2,557
	Small	1	0.0559	185	10	10	3	31	\$32.54	\$ 1,011
Total/Average				73,274	5,809	5,809	3	17,427	\$32.54	\$ 567,075

Table 21

Initial Medical Examination (§§ 1910.1026(k)(1)(i)(A), (k)(3)(i), and (k)(3)(ii); 1915.1026(i)(1)(i)(A), (i)(3)(i), and (i)(3)(ii); and 1926.1126(i)(1)(i)(A), (i)(3)(i), and (i)(3)(ii)) Contract Cost for a PLHCP to Conduct the Initial Medical Examination

This table calculates the cost for a contractor PLHCP to conduct initial medical examinations.

$$\text{COST} = (\text{POTEXEMP} * 5\%) * \text{MEDEXAMCOST} * \# \text{PLANTS}$$

Variables:

POTEXEMP = Total number of potentially exposed employees at or above the AL and workers with "signs and symptoms" before the implementation of engineering controls

MEDEXAMCOST = Cost of medical exam

#PLANTS = Number of Plants

		\$0				
Variables	Size	POTEXEMP	POTEXEMP*5%	MEDEXAMCOST	#PLANTS	COST
SECTOR 1. ELECTROPLATING						
All	Large	5	0.2500	\$175	1,752	\$76,565
	Small	1	0.0500	\$175	3,297	\$28,810
SECTOR 2A. WELDING						
General Industry	Large	2	0.1005	\$175	8,171	\$143,478
	Small	0	0.0000	\$175	9,155	\$0
Maritime	Large	19	0.9545	\$175	197	\$32,852
	Small	1	0.0502	\$175	112	\$979
Construction	Large	51	2.5621	\$175	278	\$124,626
	Small	5	0.2512	\$175	2,231	\$97,922
Government	State	2	0.1005	\$175	26	\$459
	Local	0	0.0000	\$175	819	\$0
SECTOR 2B. MILD STEEL WELDING						
General Industry	Large	1	0.0502	\$175	10,955	\$96,184
	Small	0	0.0000	\$175	11,152	\$0
Maritime	Large	0	0.0000	\$175	425	\$0
	Small	1	0.0502	\$175	241	\$2,117
Construction	Large	19	0.9545	\$175	418	\$69,728
	Small	2	0.1005	\$175	3,158	\$55,454
SECTOR 3. PAINTING						
GENERAL INDUSTRY						
AEROSPACE	Large	47	2.3399	\$175	50	\$20,263

Table 21

Variables	Size	POTEXEMP	POTEXEMP*5%	MEDEXAMCOST	#PLANTS	COST
	Small	1	0.0459	\$175	62	\$500
Auto Body	Large	12	0.5964	\$175	330	\$34,435
	Small	1	0.0459	\$175	1,454	\$11,662
Coil Coating	Large	2	0.0918	\$175	101	\$1,619
	Small	1	0.0459	\$175	18	\$147
Maritime	Large	3	0.1282	\$175	274	\$6,150
	Small	1	0.0427	\$175	474	\$3,544
Construction	Large	2	0.1121	\$175	789	\$15,472
	Small	1	0.0374	\$175	4,197	\$27,418
Government	State	9	0.4597	\$175	17	\$1,372
	Local	1	0.0328	\$175	945	\$5,424
SECTOR 4. PRODUCERS OF CHROMATES						
ALL	Large	7	0.3500	\$175	2	\$114
	Small	0	0.0000	\$175	0	\$0
SECTOR 5. CHROMATE PIGMENT PROCEDURES						
ALL	Large	20	1.0000	\$175	2	\$291
	Small	2	0.1000	\$175	1	\$15
SECTOR 6. CCA PRODUCERS						
ALL	Large	3	0.1500	\$175	3	\$68
	Small	0	0.0000	\$175	0	\$0
SECTOR 7. CHROMIUM CATALYST PRODUCERS						
ALL	Large	24	1.2000	\$175	5	\$976
	Small	0	0.0000	\$175	0	\$0
SECTOR 8. PAINT AND COATING PRODUCERS						
ALL	Large	5	0.2500	\$175	78	\$3,418
	Small	2	0.1000	\$175	123	\$2,148
SECTOR 9. PRINTING INK PRODUCERS						
ALL	Large	0	0.0000	\$175	2	\$0
	Small	0	0.0000	\$175	7	\$0
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS						
ALL	Large	0	0.0000	\$175	79	\$0

Table 21

Variables	Size	POTEXEMP	POTEXEMP*5%	MEDEXAMCOST	#PLANTS	COST
	Small	0	0.0000	\$175	39	\$0
SECTOR 11. PLATING MIXTURE PRODUCERS						
ALL	Large	3	0.1500	\$175	6	\$155
	Small	1	0.0500	\$175	4	\$34
SECTOR 13. CHROMIUM METAL PRODUCERS						
ALL	Large	14	0.7000	\$175	1	\$127
	Small	0	0.0000	\$175	0	\$0
SECTOR 14. IRON AND STEEL MILLS						
General Industry	Large	42	2.0822	\$175	39	\$14,091
	Small	1	0.0731	\$175	12	\$159
Carbon Steel	Large	10	0.5114	\$175	116	\$10,383
	Small	1	0.0731	\$175	37	\$466
SECTOR 14.B FORGING INDUSTRY						
Reshaping	Large	3	0.1500	\$175	33	\$870
	Small	0	0.0000	\$175	31	\$0
SECTOR 15. IRON AND STEEL FOUNDRIES						
ALL	Large	23	1.1500	\$175	152	\$30,580
	Small	5	0.2500	\$175	111	\$4,835
SECTOR 17. CHROMIUM DYE PRODUCERS						
ALL	Large	0	0.0000	\$175	2	\$0
	Small	0	0.0000	\$175	1	\$0
SECTOR 18. CHROMIUM SULFATE PRODUCERS						
ALL	Large	0	0.0000	\$175	0	\$0
	Small	3	0.1500	\$175	5	\$122
SECTOR 19. CHEMICAL DISTRIBUTORS						
ALL	Large	0	0.0000	\$175	212	\$0
	Small	0	0.0000	\$175	1,600	\$0
SECTOR 20. TEXTILE DYEING						
ALL	Large	0	0.0000	\$175	307	\$0
	Small	0	0.0000	\$175	623	\$0
SECTOR 21. COLORED GLASS PRODUCERS						
General Industry	Large	1	0.0645	\$175	8	\$87

Table 21

Variables	Size	POTEXEMP	POTEXEMP*5%	MEDEXAMCOST	#PLANTS	COST
	Small	0	0.0000	\$175	24	\$0
Fiber, Flat and Container Glass	Large	14	0.7090	\$175	111	\$13,738
	Small	3	0.1289	\$175	6	\$145
SECTOR 22. PRINTING						
ALL	Large	0	0.0000	\$175	78	\$0
	Small	0	0.0000	\$175	312	\$0
SECTOR 24. CHROMIUM CATALYST USERS						
General Industry	Large	1	0.0591	\$175	193	\$1,987
	Small	0	0.0000	\$175	0	\$0
Chromium Service Companies	Large	12	0.5906	\$175	25	\$2,560
	Small	6	0.2953	\$175	5	\$244
SECTOR 25. REFRACTORY BRICK PRODUCERS						
ALL	Large	0	0.0000	\$175	5	\$0
	Small	0	0.0000	\$175	0	\$0
SECTOR 26. WOODWORKING						
General Industry	Large	1	0.0382	\$175	143	\$955
	Small	0	0.0000	\$175	76	\$0
Maritime	Large	0	0.0000	\$175	36	\$0
	Small	0	0.0000	\$175	32	\$0
Construction	Large	2	0.1241	\$175	1,232	\$26,734
	Small	1	0.0414	\$175	4,932	\$35,670
Government	State	1	0.0328	\$175	17	\$98
	Local	1	0.0328	\$175	62	\$354
SECTOR 27. SOLID WASTER INCINERATION						
ALL	Large	0	0.0000	\$175	39	\$0
	Small	0	0.0000	\$175	47	\$0
Government	State	0	0.0000	\$175	0	\$0
	Local	0	0.0000	\$175	24	\$0
SECTOR 30. SUPERALLOY PRODUCERS AND USERS						
ALL	Large	2	0.1000	\$175	18	\$306
	Small	0	0.0000	\$175	0	\$0

Table 21

Variables	Size	POTEXEMP	POTEXEMP*5%	MEDEXAMCOST	#PLANTS	COST
SECTOR 31. CONSTRUCTION						
Industrial Rehabilitation & Maintenance	Large	0	0.0000	\$175	54	\$0
	Small	0	0.0000	\$175	247	\$0
	State	0	0.0000	\$175	16	\$0
	Local	0	0.0000	\$175	93	\$0
Hazardous Waste Site Work	Large	0	0.0000	\$175	43	\$0
	Small	0	0.0000	\$175	180	\$0
	State	0	0.0000	\$175	1	\$0
	Local	0	0.0000	\$175	252	\$0
Refractory Brick Restoration	Large	11	0.5586	\$175	47	\$4,578
	Small	1	0.0559	\$175	185	\$1,810
Total					73,274	\$1,015,299

Table 22

TABLE 22: Annual Medical Examination (§§ 1910.1026(k)(2)(ii), (k)(3)(i), and (k)(3)(ii); 1915.1026(i)(2)(ii), (i)(3)(i), and (i)(3)(ii); and 1926.1126(i)(2)(ii), (i)(3)(i), and (i)(3)(ii)) Employee Time and Cost to Complete the Annual Medical Examination

This table calculates the burden hours and costs associated with employee time to complete the annual medical examination in the year after the initial medical examination is completed. These hours and costs are for existing employees who are potentially exposed at or above the action level or who show "signs and symptoms" of exposure. The Agency assumes that a varying percentage of existing plants will have employees who will complete these exams; these percentages are specific to each sector and plant size (large or small). Employees who work for employers who conduct annual examinations, %BASEMED, will incur an incremental medical exam time of 3 hours. Employees who are not working for employers providing annual medical examinations (1-%BASEMED) will incur three hours for a full limited medical exam.

$$\text{COST} = (\text{LIMEMPAL} + \text{MEDEXAMADDERM}) * (\text{LIMPARTIME} * \% \text{BASEMED}) + (\text{LIMFULLTIME} * (1 - \% \text{BASEMED})) * \text{PLANTS}$$

$$\text{BURDEN HOURS} = \text{Burden Hours} \times \text{NONSUPEWAGE}$$

Variables:

LIMEMPAL = Number of employees requiring a limited medical exam b/c at or > AL after the implementation of engineering controls.
MEDEXAMADDERM = Number of employees above the AL requiring a limited medical exam b/c of dermal "signs and symptoms" after the implementation of engineering controls.
LIMPARTIME = Incremental employee time, in hours, for a partial limited exam
%BASEMED = Percentage of employers who are providing annual medical examinations
LIMFULLTIME = Employee time, in hours, for a full limited medical exam
1-%BASEMED = Percentage of plants that are not providing annual medical examinations.
#PLANTS = Number of Plants

VARIABLES	SIZE	LIMEMPAL	MEDEXAMADDERM	LIMPARTIME	%BASEMED	LIMFULLTIME	1-%BASEMED	#PLANTS	RESPONDENTS	RESPONSES	HOURS PER RESPONSE (FOR "ITEM 12 TABLE")	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COSTS
SECTOR 1. ELECTROPLATING														
All	Large	3	0.000000	3	100.00%	3.00	1	100.00%	1,752	5,257	5,257	3	15,771	\$32.54 \$ 513,225
	Small	0	0.000000	3	100.00%	3.00	1	100.00%	3,297	-	-	3	-	\$32.54 \$ -
SECTOR 2A. WELDING														
General Industry	Large	0	0.000000	3	5.00%	3.00	1	5.00%	8,171	-	-	3	-	\$32.54 \$ -
	Small	0	0.000000	3	0.00%	3.00	1	0.00%	9,155	-	-	3	-	\$32.54 \$ -
Maritime	Large	14	3.014286	3	5.00%	3.00	1	5.00%	197	3,364	3,364	3	10,091	\$32.54 \$ 328,388
	Small	1	0.000000	3	0.00%	3.00	1	0.00%	112	112	112	3	336	\$32.54 \$ 10,940
Construction	Large	27	3.014286	3	5.00%	3.00	1	5.00%	278	8,389	8,389	3	25,168	\$32.54 \$ 818,999
	Small	3	0.000000	3	0.00%	3.00	1	0.00%	2,231	6,724	6,724	3	20,171	\$32.54 \$ 656,382
Government	State	0	0.000000	3	5.00%	3.00	1	5.00%	26	-	-	3	-	\$32.54 \$ -
	Local	0	0.000000	3	0.00%	3.00	1	0.00%	819	-	-	3	-	\$32.54 \$ -
SECTOR 2B. MILD STEEL WELDING														
General Industry	Large	0	0.000000	3	5.00%	3.00	1	5.00%	10,955	-	-	3	-	\$32.54 \$ -
	Small	0	0.000000	3	0.00%	3.00	1	0.00%	11,152	-	-	3	-	\$32.54 \$ -
Maritime	Large	0	0.000000	3	5.00%	3.00	1	5.00%	425	-	-	3	-	\$32.54 \$ -
	Small	0	0.000000	3	0.00%	3.00	1	0.00%	241	-	-	3	-	\$32.54 \$ -
Construction	Large	10	0.000000	3	5.00%	3.00	1	5.00%	418	4,200	4,200	3	12,599	\$32.54 \$ 409,992
	Small	1	0.000000	3	0.00%	3.00	1	0.00%	3,158	3,173	3,173	3	9,519	\$32.54 \$ 309,761
SECTOR 3. PAINTING														
Aerospace	Large	46	0.000000	3	80.00%	3.00	1	80.00%	50	2,273	2,273	3	6,820	\$32.54 \$ 221,942
	Small	0	0.000000	3	50.00%	3.00	1	50.00%	62	-	-	3	-	\$32.54 \$ -
Auto Body	Large	1	0.000000	3	80.00%	3.00	1	80.00%	330	303	303	3	909	\$32.54 \$ 29,592
	Small	0	0.000000	3	50.00%	3.00	1	50.00%	1,454	-	-	3	-	\$32.54 \$ -
Coil Coating	Large	2	0.000000	3	80.00%	3.00	1	80.00%	101	185	185	3	556	\$32.54 \$ 18,084
	Small	1	0.000000	3	50.00%	3.00	1	50.00%	18	17	17	3	51	\$32.54 \$ 1,644
Maritime	Large	2	0.000000	3	100.00%	3.00	1	100.00%	274	469	469	3	1,408	\$32.54 \$ 45,803
	Small	1	0.000000	3	50.00%	3.00	1	50.00%	474	406	406	3	1,217	\$32.54 \$ 39,596
Construction	Large	2	0.000000	3	100.00%	3.00	1	100.00%	789	1,771	1,771	3	5,312	\$32.54 \$ 172,849
	Small	0	0.000000	3	100.00%	3.00	1	100.00%	4,197	-	-	3	-	\$32.54 \$ -
Government	State	0	0.000000	3	100.00%	3.00	1	100.00%	17	-	-	3	-	\$32.54 \$ -
	Local	9	0.000000	3	100.00%	3.00	1	100.00%	945	8,689	8,689	3	26,068	\$32.54 \$ 848,293
SECTOR 4. PRODUCERS OF CHROMATES														
All	Large	7	0.000000	3	50.00%	3.00	1	50.00%	2	13	13	3	39	\$32.54 \$ 1,273
	Small	0	0.000000	3	0.00%	3.00	1	0.00%	0	-	-	3	-	\$32.54 \$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES														
	Large	7	0.000000	3	100.00%	3.00	1	100.00%	2	12	12	3	35	\$32.54 \$ 1,139

Table 22

VARIABLES	SIZE	LIME/PAL	MEDEXAMADDERM	LIME/PARTIME	%BASEMED	LIME/PFULLTIME	1-%BASEMED	#PLANTS	RESPONDENTS	RESPONSES	HOURS PER RESPONSE (FOR "ITEM 12 TABLE")	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COSTS
All	Small	1	0.000000	3	100.00%	3.00	100.00%	1	1	1	3	2	\$32.54	\$ 81
SECTOR 6. CCA PRODUCERS														
All	Large	2	0.000000	3	100.00%	3.00	100.00%	3	5	5	3	16	\$32.54	\$ 506
	Small	0	0.000000	3	0.00%	3.00	0.00%	0	-	-	3	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS														
All	Large	11	0.000000	3	100.00%	3.00	100.00%	5	51	51	3	154	\$32.54	\$ 5,000
	Small	0	0.000000	3	100.00%	3.00	100.00%	0	-	-	3	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS														
All	Large	1	0.000000	3	100.00%	3.00	100.00%	78	78	78	3	235	\$32.54	\$ 7,636
	Small	0	0.000000	3	100.00%	3.00	100.00%	123	-	-	3	-	\$32.54	\$ -
SECTOR 9. PRINTING INK PRODUCERS														
All	Large	0	0.000000	3	80.00%	3.00	80.00%	2	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	3	10.00%	3.00	10.00%	7	-	-	3	-	\$32.54	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS														
All	Large	0	0.000000	3	100.00%	3.00	100.00%	79	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	3	100.00%	3.00	100.00%	39	-	-	3	-	\$32.54	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS														
All	Large	3	0.000000	3	50.00%	3.00	50.00%	6	18	18	3	53	\$32.54	\$ 1,733
	Small	1	0.000000	3	30.00%	3.00	30.00%	4	4	4	3	12	\$32.54	\$ 385
SECTOR 13. CHROMIUM METAL PRODUCERS														
All	Large	8	0.000000	3	100.00%	3.00	100.00%	1	8	8	3	25	\$32.54	\$ 812
	Small	0	0.000000	3	0.00%	3.00	0.00%	0	-	-	3	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS														
General Industry	Large	31	0.006751	3	50.00%	3.00	50.00%	39	1,188	1,188	3	3,565	\$32.54	\$ 116,023
	Small	1	0.000321	3	30.00%	3.00	30.00%	12	18	18	3	54	\$32.54	\$ 1,772
Carbon Steel	Large	1	0.000161	3	50.00%	3.00	50.00%	116	85	85	3	255	\$32.54	\$ 8,287
	Small	1	0.000321	3	30.00%	3.00	30.00%	37	53	53	3	160	\$32.54	\$ 5,212
SECTOR 14.B FORGING INDUSTRY														
Reshaping	Large	0	0.000643	3	50.00%	3.00	50.00%	33	\$ 0.02	\$ 0.02	3	\$ 0.1	\$32.54	\$ 2
	Small	0	0.000161	3	30.00%	3.00	30.00%	31	\$ 0.01	\$ 0.01	3	\$ 0.02	\$32.54	\$ 0.5
SECTOR 15. IRON AND STEEL FOUNDRIES														
All	Large	16	0.000000	3	80.00%	3.00	80.00%	152	2,434	2,434	3	7,303	\$32.54	\$ 237,659
	Small	4	0.000000	3	10.00%	3.00	10.00%	111	443	443	3	1,328	\$32.54	\$ 43,211
SECTOR 17. CHROMIUM DYE PRODUCERS														
All	Large	0	0.000000	3	100.00%	3.00	100.00%	2	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	3	100.00%	3.00	100.00%	1	-	-	3	-	\$32.54	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS														
All	Large	0	0.000000	3	100.00%	3.00	100.00%	0	-	-	3	-	\$32.54	\$ -
	Small	1	0.000000	3	100.00%	3.00	100.00%	5	5	5	3	14	\$32.54	\$ 455
SECTOR 19. CHEMICAL DISTRIBUTORS														
All	Large	0	0.000000	3	0.00%	3.00	0.00%	212	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	3	0.00%	3.00	0.00%	1,600	-	-	3	-	\$32.54	\$ -
SECTOR 20. TEXTILE DYEING														
All	Large	0	0.000000	3	80.00%	3.00	80.00%	307	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	3	10.00%	3.00	10.00%	623	-	-	3	-	\$32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS														
General Industry	Large	1	0.000000	3	80.00%	3.00	80.00%	8	10	10	3	30	\$32.54	\$ 973
	Small	0	0.000000	3	10.00%	3.00	10.00%	24	-	-	3	-	\$32.54	\$ -
Fiber, Flat and Container Glass	Large	12	0.000000	3	80.00%	3.00	80.00%	111	1,286	1,286	3	3,859	\$32.54	\$ 125,577
	Small	3	0.000000	3	10.00%	3.00	10.00%	6	17	17	3	50	\$32.54	\$ 1,622
SECTOR 22. PRINTING														
All	Large	0	0.000000	3	80.00%	3.00	80.00%	78	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	3	10.00%	3.00	10.00%	312	-	-	3	-	\$32.54	\$ -

Table 22

VARIABLES	SIZE	LIME/PAL	MEDEXAM/DERM	LIME/PARTIME	%BASEMED	LIME/PFULLTIME	1-%BASEMED	#PLANTS	RESPONDENTS	RESPONSES	HOURS PER RESPONSE (FOR "ITEM 12 TABLE")	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COSTS
SECTOR 24. CHROMIUM CATALYST USERS														
General Industry	Large	0	0.000000	3	80.00%	3.00	1	80.00%	193	-	-	3	-	\$32.54 \$ -
	Small	0	0.000000	3	80.00%	3.00	1	80.00%	0	-	-	3	-	\$32.54 \$ -
Chromium Service Companies	Large	6	0.000000	3	80.00%	3.00	1	80.00%	25	146	146	3	439	\$32.54 \$ 14,300
	Small	4	0.000000	3	30.00%	3.00	1	30.00%	5	17	17	3	50	\$32.54 \$ 1,634
SECTOR 25. REFRACTORY BRICK PRODUCERS														
All	Large	0	0.000000	3	80.00%	3.00	1	80.00%	5	-	-	3	-	\$32.54 \$ -
	Small	0	0.000000	3	10.00%	3.00	1	10.00%	0	-	-	3	-	\$32.54 \$ -
SECTOR 26. WOODWORKING														
General Industry	Large	0	0.000000	3	25.00%	3.00	1	25.00%	143	-	-	3	-	\$32.54 \$ -
	Small	0	0.000000	3	0.00%	3.00	1	0.00%	76	-	-	3	-	\$32.54 \$ -
Maritime	Large	0	0.000000	3	25.00%	3.00	1	25.00%	36	-	-	3	-	\$32.54 \$ -
	Small	0	0.000000	3	0.00%	3.00	1	0.00%	32	-	-	3	-	\$32.54 \$ -
Construction	Large	1	0.000000	3	50.00%	3.00	1	50.00%	1,232	1,020	1,020	3	3,059	\$32.54 \$ 99,557
	Small	1	0.000000	3	50.00%	3.00	1	50.00%	4,932	4,082	4,082	3	12,246	\$32.54 \$ 398,496
Government	State	1	0.000000	3	50.00%	3.00	1	50.00%	17	11	11	3	34	\$32.54 \$ 1,095
	Local	1	0.000000	3	50.00%	3.00	1	50.00%	62	41	41	3	122	\$32.54 \$ 3,958
SECTOR 27. SOLID WASTER INCINERATION														
All	Large	0	0.000000	3	50.00%	3.00	1	50.00%	39	-	-	3	-	\$32.54 \$ -
	Small	0	0.000000	3	30.00%	3.00	1	30.00%	47	-	-	3	-	\$32.54 \$ -
Government	State	1	0.000000	3	50.00%	3.00	1	50.00%	0	-	-	3	-	\$32.54 \$ -
	Local	0	0.000000	3	30.00%	3.00	1	30.00%	24	-	-	3	-	\$32.54 \$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS														
All	Large	2	2.000000	3	50.00%	3.00	1	50.00%	18	70	70	3	210	\$32.54 \$ 6,847
	Small	0	0.000000	3	30.00%	3.00	1	30.00%	0	-	-	3	-	\$32.54 \$ -
SECTOR 31. CONSTRUCTION														
Industrial Rehabilitation & Maintenance	Large	0	0.000000	3	50.00%	3.00	1	50.00%	54	-	-	3	-	\$32.54 \$ -
	Small	0	0.000000	3	50.00%	3.00	1	50.00%	247	-	-	3	-	\$32.54 \$ -
	State	0	0.000000	3	50.00%	3.00	1	50.00%	16	-	-	3	-	\$32.54 \$ -
	Local	0	0.000000	3	50.00%	3.00	1	50.00%	93	-	-	3	-	\$32.54 \$ -
Hazardous Waste Site Work	Large	0	0.000000	3	50.00%	3.00	1	50.00%	43	-	-	3	-	\$32.54 \$ -
	Small	0	0.000000	3	50.00%	3.00	1	50.00%	180	-	-	3	-	\$32.54 \$ -
	State	0	0.000000	3	50.00%	3.00	1	50.00%	1	-	-	3	-	\$32.54 \$ -
	Local	0	0.000000	3	50.00%	3.00	1	50.00%	252	-	-	3	-	\$32.54 \$ -
Refractory Brick Restoration	Large	1	0.000000	3	50.00%	3.00	1	50.00%	47	52	52	3	157	\$32.54 \$ 5,114
	Small	1	0.000000	3	50.00%	3.00	1	50.00%	185	207	207	3	621	\$32.54 \$ 20,224
Weighted Average/Total								73,274	56,708	56,708	3	170,124	\$32.54	\$ 5,535,835

Table 23

Annual Medical Examination (§§ 1910.1026(k)(2)(ii), (k)(3)(i), and (k)(3)(iii); 1915.1026(i)(2)(ii), (i)(3)(i), and (i)(3)(ii); and 1926.1126(i)(2)(ii), (i)(3)(i), and (i)(3)(ii)) Contract Cost for a PLHCP to Conduct the Medical Examination

This table calculates the cost for a contractor PLHCP to conduct the annual medical examination. Employers who were providing annual examinations (%BASEMED) will incur a partial medical exam cost per employee. Employers who were NOT providing annual medical examinations (1-%BASEMED) will incur the full cost of a medical exam per employee.

$$\text{COST} = (\text{LIMEMPAL} + \text{MEDEXAMADDERM}) * ((\text{PARTFULLCOST} * \% \text{BASEMED}) + (\text{LIMFULLCOST} * (1 - \% \text{BASEMED}))) * \text{PLANTS}$$

Variables:

LIMEMPAL = Number of employees requiring a limited medical exam b/c at or > AL after the implementation of engineering controls.

MEDEXAMADDERM = Number of employees at or above the AL requiring a limited medical exam b/c of dermal "signs and symptoms" after the implementation of engineering controls.

PARTFULLCOST = The cost of a partial medical exam for employers who are providing annual medical examinations.

%BASEMED = Percentage of employers who are providing annual medical examinations

LIMITFULLCOST = The cost of a medical examination for employers who are not providing annual medical examinations

1-%BASEMED = Percentage of plants that are not providing annual medical examinations.

#PLANTS = Number of Plants

0									
Variables	Size	LIMEMPAL	MEDEXAMADDERM	PARTFULLCOST	%BASEMED	LIMFULLCOST	1-%BASEMED	#PLANTS	COST
SECTOR 1. ELECTROPLATING									
All	Large	3	0.000000	\$149	100.00%	\$175 * 1	100.00%	1,752	\$ 783,390
	Small	0	0.000000	\$149	100.00%	\$175 * 1	100.00%	3,297	\$ -
SECTOR 2A. WELDING									
General Industry	Large	0	0.000000	\$149	5.00%	\$175 * 1	5.00%	8,171	\$ -
	Small	0	0.000000	\$149	0.00%	\$175 * 1	0.00%	9,155	\$ -
Maritime	Large	14	3.014286	\$149	5.00%	\$175 * 1	5.00%	197	\$ 583,554
	Small	1	0.000000	\$149	0.00%	\$175 * 1	0.00%	112	\$ 19,584
Construction	Large	27	3.014286	\$149	5.00%	\$175 * 1	5.00%	278	\$ 1,455,381
	Small	3	0.000000	\$149	0.00%	\$175 * 1	0.00%	2,231	\$ 1,175,064
Government	State	0	0.000000	\$149	5.00%	\$175 * 1	5.00%	26	\$ -
	Local	0	0.000000	\$149	0.00%	\$175 * 1	0.00%	819	\$ -
SECTOR 2B. MILD STEEL WELDING									
General Industry	Large	0	0.000000	\$149	5.00%	\$175 * 1	5.00%	10,955	\$ -
	Small	0	0.000000	\$149	0.00%	\$175 * 1	0.00%	11,152	\$ -
Maritime	Large	0	0.000000	\$149	5.00%	\$175 * 1	5.00%	425	\$ -
	Small	0	0.000000	\$149	0.00%	\$175 * 1	0.00%	241	\$ -
Construction	Large	10	0.000000	\$149	5.00%	\$175 * 1	5.00%	418	\$ 728,566
	Small	1	0.000000	\$149	0.00%	\$175 * 1	0.00%	3,158	\$ 554,539
SECTOR 3. PAINTING									
GENERAL INDUSTRY									
AEROSPACE	Large	46	0.000000	\$149	80.00%	\$175 * 1	80.00%	50	\$ 350,484
	Small	0	0.000000	\$149	50.00%	\$175 * 1	50.00%	62	\$ -
Auto Body	Large	1	0.000000	\$149	80.00%	\$175 * 1	80.00%	330	\$ 46,731
	Small	0	0.000000	\$149	50.00%	\$175 * 1	50.00%	1,454	\$ -
Coil Coating	Large	2	0.000000	\$149	80.00%	\$175 * 1	80.00%	101	\$ 28,558

Table 23

Variables	Size	LIMEPAL	MEDEXAMADDERM	PARTFULLCOST	%BASEMED	LIMEFULLCOST	1-%BASEMED	#PLANTS	COST
	Small	1	0.000000	\$149	50.00%	\$175 * 1	50.00%	18	\$ 2,726
Maritime	Large	2	0.000000	\$149	100.00%	\$175 * 1	100.00%	274	\$ 69,915
	Small	1	0.000000	\$149	50.00%	\$175 * 1	50.00%	474	\$ 65,663
Construction	Large	2	0.000000	\$149	100.00%	\$150 * 1	100.00%	789	\$ 263,837
	Small	0	0.000000	\$149	100.00%	\$150 * 1	100.00%	4,197	\$ -
Government	State	0	0.000000	\$149	100.00%	\$150 * 1	100.00%	17	\$ -
	Local	9	0.000000	\$149	100.00%	\$150 * 1	100.00%	945	\$ 1,294,842
SECTOR 4. PRODUCERS OF CHROMATES									
ALL	Large	7	0.000000	\$149	50.00%	\$175 * 1	50.00%	2	\$ 2,111
	Small	0	0.000000	\$149	0.00%	\$175 * 1	0.00%	0	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES									
ALL	Large	7	0.000000	\$149	100.00%	\$175 * 1	100.00%	2	\$ 1,738
	Small	1	0.000000	\$149	100.00%	\$175 * 1	100.00%	1	\$ 124
SECTOR 6. CCA PRODUCERS									
ALL	Large	2	0.000000	\$149	100.00%	\$175 * 1	100.00%	3	\$ 772
	Small	0	0.000000	\$149	0.00%	\$175 * 1	0.00%	0	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS									
ALL	Large	11	0.000000	\$149	100.00%	\$175 * 1	100.00%	5	\$ 7,632
	Small	0	0.000000	\$149	100.00%	\$175 * 1	100.00%	0	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS									
ALL	Large	1	0.000000	\$149	100.00%	\$175 * 1	100.00%	78	\$ 11,656
	Small	0	0.000000	\$149	100.00%	\$175 * 1	100.00%	123	\$ -
SECTOR 9. PRINTING INK PRODUCERS									
ALL	Large	0	0.000000	\$149	80.00%	\$175 * 1	80.00%	2	\$ -
	Small	0	0.000000	\$149	10.00%	\$175 * 1	10.00%	7	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS									
ALL	Large	0	0.000000	\$149	100.00%	\$175 * 1	100.00%	79	\$ -
	Small	0	0.000000	\$149	100.00%	\$175 * 1	100.00%	39	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS									
ALL	Large	3	0.000000	\$149	50.00%	\$175 * 1	50.00%	6	\$ 2,874
	Small	1	0.000000	\$149	30.00%	\$175 * 1	30.00%	4	\$ 659
SECTOR 13. CHROMIUM METAL PRODUCERS									
ALL	Large	8	0.000000	\$149	100.00%	\$175 * 1	100.00%	1	\$ 1,239
	Small	0	0.000000	\$149	0.00%	\$175 * 1	0.00%	0	\$ -
SECTOR 14. IRON AND STEEL MILLS									
General Industry	Large	31	0.006751	\$149	50.00%	\$175 * 1	50.00%	39	\$ 192,403
	Small	1	0.000321	\$149	30.00%	\$175 * 1	30.00%	12	\$ 3,032
Carbon Steel	Large	1	0.000161	\$149	50.00%	\$175 * 1	50.00%	116	\$ 13,743
	Small	1	0.000321	\$149	30.00%	\$175 * 1	30.00%	37	\$ 8,918
SECTOR 14.B FORGING INDUSTRY									

Table 23

Variables	Size	LIME PAL	MEDEXAMADDERM	PART FULL COST	%BASEMED	LIME FULL COST	1-%BASEMED	#PLANTS	COST
Reshaping	Large	0	0.000643	\$149	50.00%	\$175 * 1	50.00%	33	\$ 3
	Small	0	0.000161	\$149	30.00%	\$175 * 1	30.00%	31	\$ 1
SECTOR 15. IRON AND STEEL FOUNDRIES									
ALL	Large	16	0.000000	\$149	80.00%	\$175 * 1	80.00%	152	\$ 375,304
	Small	4	0.000000	\$149	10.00%	\$175 * 1	10.00%	111	\$ 76,217
SECTOR 17. CHROMIUM DYE PRODUCERS									
ALL	Large	0	0.000000	\$149	100.00%	\$175 * 1	100.00%	2	\$ -
	Small	0	0.000000	\$149	100.00%	\$175 * 1	100.00%	1	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS									
ALL	Large	0	0.000000	\$149	100.00%	\$175 * 1	100.00%	0	\$ -
	Small	1	0.000000	\$149	100.00%	\$175 * 1	100.00%	5	\$ 694
SECTOR 19. CHEMICAL DISTRIBUTORS									
ALL	Large	0	0.000000	\$149	0.00%	\$175 * 1	0.00%	212	\$ -
	Small	0	0.000000	\$149	0.00%	\$175 * 1	0.00%	1,600	\$ -
SECTOR 20. TEXTILE DYEING									
ALL	Large	0	0.000000	\$149	80.00%	\$175 * 1	80.00%	307	\$ -
	Small	0	0.000000	\$149	10.00%	\$175 * 1	10.00%	623	\$ -
SECTOR 21. COLORED GLASS PRODUCERS									
General Industry	Large	1	0.000000	\$149	80.00%	\$175 * 1	80.00%	8	\$ 1,537
	Small	0	0.000000	\$149	10.00%	\$175 * 1	10.00%	24	\$ -
Fiber, Flat and Container Glass	Large	12	0.000000	\$149	80.00%	\$175 * 1	80.00%	111	\$ 198,307
	Small	3	0.000000	\$149	10.00%	\$175 * 1	10.00%	6	\$ 2,862
SECTOR 22. PRINTING									
ALL	Large	0	0.000000	\$149	80.00%	\$175 * 1	80.00%	78	\$ -
	Small	0	0.000000	\$149	10.00%	\$175 * 1	10.00%	312	\$ -
SECTOR 24. CHROMIUM CATALYST USERS									
General Industry	Large	0	0.000000	\$149	80.00%	\$175 * 1	80.00%	193	\$ -
	Small	0	0.000000	\$149	80.00%	\$175 * 1	80.00%	0	\$ -
Chromium Service Companies	Large	6	0.000000	\$149	80.00%	\$175 * 1	80.00%	25	\$ 22,582
	Small	4	0.000000	\$149	30.00%	\$175 * 1	30.00%	5	\$ 2,796
SECTOR 25. REFRACTORY BRICK PRODUCERS									
ALL	Large	0	0.000000	\$149	80.00%	\$175 * 1	80.00%	5	\$ -
	Small	0	0.000000	\$149	10.00%	\$175 * 1	10.00%	0	\$ -
SECTOR 26. WOODWORKING									
General Industry	Large	0	0.000000	\$149	25.00%	\$175 * 1	25.00%	143	\$ -
	Small	0	0.000000	\$149	0.00%	\$175 * 1	0.00%	76	\$ -
Maritime	Large	0	0.000000	\$149	25.00%	\$175 * 1	25.00%	36	\$ -
	Small	0	0.000000	\$149	0.00%	\$175 * 1	0.00%	32	\$ -
	Large	1	0.000000	\$149	50.00%	\$175 * 1	50.00%	1,232	\$ 165,097

Table 23

Variables	Size	LIMEMPAL	MEDEXAMADDERM	PARTFULLCOST	%BASEMED	LIMFULLCOST	1-%BASEMED	#PLANTS	COST
Construction	Small	1	0.000000	\$149	50.00%	\$175 * 1	50.00%	4,932	\$ 660,830
Government	State	1	0.000000	\$149	50.00%	\$175 * 1	50.00%	17	\$ 1,816
	Local	1	0.000000	\$149	50.00%	\$175 * 1	50.00%	62	\$ 6,564
SECTOR 27. SOLID WASTER INCINERATION									
ALL	Large	0	0.000000	\$149	50.00%	\$175 * 1	50.00%	39	\$ -
	Small	0	0.000000	\$149	30.00%	\$175 * 1	30.00%	47	\$ -
Government	State	1	0.000000	\$149	50.00%	\$175 * 1	50.00%	0	\$ -
	Local	0	0.000000	\$149	30.00%	\$175 * 1	30.00%	24	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS									
ALL	Large	2	2.000000	\$149	50.00%	\$175 * 1	50.00%	18	\$ 11,355
	Small	0	0.000000	\$149	30.00%	\$175 * 1	30.00%	0	\$ -
SECTOR 31. CONSTRUCTION									
Industrial Rehabilitation & Maintenance	Large	0	0.000000	\$149	50.00%	\$175 * 1	50.00%	54	\$ -
	Small	0	0.000000	\$149	50.00%	\$175 * 1	50.00%	247	\$ -
	State	0	0.000000	\$149	50.00%	\$175 * 1	50.00%	16	\$ -
	Local	0	0.000000	\$149	50.00%	\$175 * 1	50.00%	93	\$ -
Hazardous Waste Site Work	Large	0	0.000000	\$149	50.00%	\$175 * 1	50.00%	43	\$ -
	Small	0	0.000000	\$149	50.00%	\$175 * 1	50.00%	180	\$ -
	State	0	0.000000	\$149	50.00%	\$175 * 1	50.00%	1	\$ -
	Local	0	0.000000	\$149	50.00%	\$175 * 1	50.00%	252	\$ -
Refractory Brick Restoration	Large	1	0.000000	\$149	50.00%	\$175 * 1	50.00%	47	\$ 8,480
	Small	1	0.000000	\$149	50.00%	\$175 * 1	50.00%	185	\$ 33,538
Total								73,274	\$ 9,237,718

Table 24

TABLE 24: Initial Medical Examination with Additional Tests (§§1910.1026(k)(1)(i)(B) and (k)(3)(i)-(k)(3)(iii); 1915.1026(i)(1)(i)(B) and (i)(3)(i)-(i)(3)(iii); and 1926.1126(i)(1)(i)(B) and (i)(3)(i)-(i)(3)(iii)) Employee Time and Cost for Complete Initial Medical Examination with Additional Tests
The burden hour and cost equation is for the employee time to receive additional tests after the employee is found to have abnormal initial medical exam results. The Agency assumes that .5% of employees potentially exposed employees at or above the AL and workers with "signs and symptoms" will be found to have abnormal exam results and will receive additional testing.

$$\text{BURDEN HOURS} = \text{POTEXEMP} * 5\% * \% \text{PREVABN} * \text{MEDEXAMADDAL} * \# \text{PLANTS}$$

$$\text{COST} = \text{BURDEN HOURS} * \text{NONSUPWAGE}$$

Variables:

POTEXEMP * 5% = Total number of employees potentially exposed at or above the AL and workers with "signs and symptoms" before the implementation of engineering controls.

%PREVABN = Percent of previously exposed employees who will be found to have abnormal exam results.

MEDEXAMADDAL = Employee time for medical examination with additional testing

#PLANTS = Number of Plants

NONSUPWAGE = Nonsupervisory wage rate.

VARIABLES	SIZE	POTEXEMP * 5%	%PREVABN	#PLANTS	RESPONDENTS	RESPONSES	MEDEXAMADDAL	BURDEN HOURS	NONSUPWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING										
All	Large	0.2500	0.50%	1,752	2	2	4	9	\$32.54	\$ 285
	Small	0.0500	0.50%	3,297	1	1	4	3	\$32.54	\$ 107
SECTOR 2A. WELDING										
General Industry	Large	0.1005	0.50%	8,171	4	4	4	16	\$32.54	\$ 534
	Small	0.0000	0.50%	9,155	-	-	4	-	\$32.54	\$ -
Maritime	Large	0.9545	0.50%	197	1	1	4	4	\$32.54	\$ 122
	Small	0.0502	0.50%	112	0.03	0.03	4	0.1	\$32.54	\$ 4
Construction	Large	2.5621	0.50%	278	4	4	4	14	\$32.54	\$ 464
	Small	0.2512	0.50%	2,231	3	3	4	11	\$32.54	\$ 365
Government	State	0.1005	0.50%	26	0.01	0.01	4	0.1	\$32.54	\$ 2
	Local	0.0000	0.50%	819	-	-	4	-	\$32.54	\$ -
SECTOR 2B. MILD STEEL WELDING										
General Industry	Large	0.0502	0.50%	10,955	3	3	4	11	\$32.54	\$ 358
	Small	0.0000	0.50%	11,152	-	-	4	-	\$32.54	\$ -
Maritime	Large	0.0000	0.50%	425	-	-	4	-	\$32.54	\$ -
	Small	0.0502	0.50%	241	0.1	0.1	4	0.2	\$32.54	\$ 8
Construction	Large	0.9545	0.50%	418	2	2	4	8	\$32.54	\$ 260
	Small	0.1005	0.50%	3,158	2	2	4	6	\$32.54	\$ 207
SECTOR 3. PAINTING										
Aerospace	Large	2.3399	0.50%	50	1	1	4	2	\$32.54	\$ 75
	Small	0.0459	0.50%	62	0.01	0.01	4	0.1	\$32.54	\$ 2
Autobody Repair	Large	0.5964	0.50%	330	1	1	4	4	\$32.54	\$ 128
	Small	0.0459	0.50%	1,454	0.3	0.3	4	1	\$32.54	\$ 43
Coil Coating	Large	0.0918	0.50%	101	0.05	0.05	4	0.2	\$32.54	\$ 6

Table 24

VARIABLES	SIZE	POTEXEMP * 5%	%PREVABN	#PLANTS	RESPONDENTS	RESPONSES	MEDEXAMADDAL	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
	Small	0.0459	0.50%	18	0.004	0.004	4	0.0	\$32.54	\$ 1
Maritime	Large	0.1282	0.50%	274	0.2	0.2	4	1	\$32.54	\$ 23
	Small	0.0427	0.50%	474	0.1	0.1	4	0.4	\$32.54	\$ 13
Construction	Large	0.1121	0.50%	789	0.4	0.4	4	2	\$32.54	\$ 58
	Small	0.0374	0.50%	4,197	1	1	4	3	\$32.54	\$ 102
Government	State	0.4597	0.50%	17	0.04	0.04	4	0.2	\$32.54	\$ 5
	Local	0.0328	0.50%	945	0.2	0.2	4	1	\$32.54	\$ 20
SECTOR 4. PRODUCERS OF CHROMATES										
All	Large	0.3500	0.50%	2	0.003	0.00	4	0.01	\$32.54	0.4
	Small	0.0000	0.50%	0	-	-	4	-	\$32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES										
All	Large	1.0000	0.50%	2	0.01	0.01	4	0.03	\$32.54	\$ 1
	Small	0.1000	0.50%	1	0.0004	0.0004	4	0.002	\$32.54	0.1
SECTOR 6. CCA PRODUCERS										
All	Large	0.1500	0.50%	3	0.002	0.002	4	0.01	\$32.54	0.3
	Small	0.0000	0.50%	0	-	-	4	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS										
All	Large	1.2000	0.50%	5	0.03	0.03	4	0.1	\$32.54	\$ 4
	Small	0.0000	0.50%	0	-	-	4	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS										
All	Large	0.2500	0.50%	78	0.1	0.1	4	0.4	\$32.54	\$ 13
	Small	0.1000	0.50%	123	0.1	0.1	4	0.2	\$32.54	\$ 8
SECTOR 9. PRINTING INK PRODUCERS										
All	Large	0.0000	0.50%	2	-	-	4	-	\$32.54	\$ -
	Small	0.0000	0.50%	7	-	-	4	-	\$32.54	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS										
All	Large	0.0000	0.50%	79	-	-	4	-	\$32.54	\$ -
	Small	0.0000	0.50%	39	-	-	4	-	\$32.54	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS										
All	Large	0.1500	0.50%	6	0.004	0.004	4	0.018	\$32.54	\$ 1
	Small	0.0500	0.50%	4	0.001	0.001	4	0.004	\$32.54	0.1
SECTOR 13. CHROMIUM METAL PRODUCERS										
All	Large	0.7000	0.50%	1	0.004	0.004	4	0.01	\$32.54	0.5
	Small	0.0000	0.50%	0	-	-	4	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS										
All	Large	2.0822	0.50%	39	0.4	0.4	4	2	\$32.54	\$ 52
	Small	0.0731	0.50%	12	0.005	0.005	4	0.02	\$32.54	\$ 1
Carbon Steel	Large	0.5114	0.50%	116	0.3	0.3	4	1	\$32.54	\$ 39

Table 24

VARIABLES	SIZE	POTEXEMP * 5%	%PREVABN	#PLANTS	RESPONDENTS	RESPONSES	MEDEXAMADDAL	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
	Small	0.0731	0.50%	37	0.01	0.01	4	0.1	\$32.54	\$ 2
SECTOR 14.B FORGING INDUSTRY										
Reshaping Industry	Large	0.1500	0.50%	33	0.02	0.02	4	0.1	\$32.54	\$ 3
	Small	0.0000	0.50%	31	-	-	4	-	\$32.54	\$ -
SECTOR 15. IRON AND STEEL FOUNDRIES										
All	Large	1.1500	0.50%	152	1	1	4	3	\$32.54	\$ 114
	Small	0.2500	0.50%	111	0.1	0.1	4	1	\$32.54	\$ 18
SECTOR 17. CHROMIUM DYE PRODUCERS										
All	Large	0.0000	0.50%	2	-	-	4	-	\$32.54	\$ -
	Small	0.0000	0.50%	1	-	-	4	-	\$32.54	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS										
All	Large	0.0000	0.50%	0	-	-	4	-	\$32.54	\$ -
	Small	0.1500	0.50%	5	\$ 0.003	\$ 0.003	4	\$ 0.01	\$32.54	\$ 0.5
SECTOR 19. CHEMICAL DISTRIBUTORS										
All	Large	0.0000	0.50%	212	-	-	4	-	\$32.54	\$ -
	Small	0.0000	0.50%	1,600	-	-	4	-	\$32.54	\$ -
SECTOR 20. TEXTILE DYEING										
All	Large	0.0000	0.50%	307	-	-	4	-	\$32.54	\$ -
	Small	0.0000	0.50%	623	-	-	4	-	\$32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS										
All	Large	0.0645	0.50%	8	0.002	0.002	4	0.01	\$32.54	\$ 0.3
	Small	0.0000	0.50%	24	-	-	4	-	\$32.54	\$ -
Fiber, Flat and Container Glass	Large	0.7090	0.50%	111	0.4	0.4	4	2	\$32.54	\$ 51
	Small	0.1289	0.50%	6	0.004	0.004	4	0.02	\$32.54	\$ 1
SECTOR 22. PRINTING										
All	Large	0.0000	0.50%	78	-	-	4	-	\$32.54	\$ -
	Small	0.0000	0.50%	312	-	-	4	-	\$32.54	\$ -
SECTOR 24. CHROMIUM CATALYST USERS										
All	Large	0.0591	0.50%	193	0.1	0.1	4	0.2	\$32.54	\$ 7
	Small	0.0000	0.50%	0	-	-	4	-	\$32.54	\$ -
Catalyst Service Companies	Large	0.5906	0.50%	25	0.1	0.1	4	0.3	\$32.54	\$ 10
	Small	0.2953	0.50%	5	0.01	0.01	4	0.03	\$32.54	\$ 1
SECTOR 25. REFRACTORY BRICK PRODUCERS										
All	Large	0.0000	0.50%	5	-	-	4	-	\$32.54	\$ -
	Small	0.0000	0.50%	0	-	-	4	-	\$32.54	\$ -
SECTOR 26. WOODWORKING										
General Industry	Large	0.0382	0.50%	143	0.03	0.03	4	0.1	\$32.54	\$ 4
	Small	0.0000	0.50%	76	-	-	4	-	\$32.54	\$ -
	Large	0.0000	0.50%	36	-	-	4	-	\$32.54	\$ -

Table 24

VARIABLES	SIZE	POTEXEMP * 5%	%PREVABN	#PLANTS	RESPONDENTS	RESPONSES	MEDEXAMADDAL	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Maritime	Small	0.0000	0.50%	32	-	-	4	-	\$32.54	\$ -
Construction	Large	0.1241	0.50%	1,232	1	1	4	3	\$32.54	\$ 100
	Small	0.0414	0.50%	4,932	1	1	4	4	\$32.54	\$ 133
Government	Local	0.0328	0.50%	17	0.003	0.003	4	0.01	\$32.54	\$ 0.4
	State	0.0328	0.50%	62	0.01	0.01	4	0.04	\$32.54	\$ 1
SECTOR 27. SOLID WASTER INCINERATION										
All	Large	0.0000	0.50%	39	-	-	4	-	\$32.54	\$ -
	Small	0.0000	0.50%	47	-	-	4	-	\$32.54	\$ -
Government	Local	0.0000	0.50%	0	-	-	4	-	\$32.54	\$ -
	State	0.0000	0.50%	24	-	-	4	-	\$32.54	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS										
All	Large	0.1000	0.50%	18	0.01	0.01	4	0.04	\$32.54	\$ 1
	Small	0.0000	0.50%	0	-	-	4	-	\$32.54	\$ -
SECTOR 31. CONSTRUCTION										
Industrial Rehabilitation & Maintenance	Large	0.0000	0.50%	54	-	-	4	-	\$32.54	\$ -
	Small	0.0000	0.50%	247	-	-	4	-	\$32.54	\$ -
	State Gov't	0.0000	0.50%	16	-	-	4	-	\$32.54	\$ -
	Local Gov't	0.0000	0.50%	93	-	-	4	-	\$32.54	\$ -
Hazardous Waste Site Work	Large	0.0000	0.50%	43	-	-	4	-	\$32.54	\$ -
	Small	0.0000	0.50%	180	-	-	4	-	\$32.54	\$ -
	State Gov't	0.0000	0.50%	1	-	-	4	-	\$32.54	\$ -
	Local Gov't	0.0000	0.50%	252	-	-	4	-	\$32.54	\$ -
Refractory Brick Restoration & Maintenance	Large	0.5586	0.50%	47	0.1	0.1	4	1	\$32.54	\$ 17
	Small	0.0559	0.50%	185	0.1	0.1	4	0.2	\$32.54	\$ 7
Total/Average				73,274	29	29	4	116	\$32.54	\$ 3,775

Table 25

Initial Medical Examination with Additional Tests (§§1910.1026(k)(1)(i)(B) and (k)(3)(i)-(k)(3)(iii); 1915.1026(i)(1)(i)(B) and (i)(3)(i)-(i)(3)(iii); and 1926.1126(i)(1)(i)(B) and (i)(3)(i)-(i)(3)(iii)) Contract Cost for a PLHCP to Conduct the Initial Medical Examination with Additional Tests

This table calculates the cost for a contractor PLHCP to conduct additional medical testing for those employees who have abnormal annual medical examination results.

Variables:

POTEXEMP * 5% = Total number of new potentially exposed employees at or above the AL and workers with "signs and symptoms" before the implementation of engineering controls.

%PREVABN = Percent of previously exposed employees who will be found to have abnormal exam results.

MEDCOSTADD = Cost for medical examination with additional testing

#PLANTS = Number of Plants

0.0500

		0				
Variables	Size	POTEXEMP * 5%	%PREVABN	MEDCOSTADD	#PLANTS	Cost
SECTOR 1. ELECTROPLATING						
All	Large	0.2500	0.50%	\$298.04	1,752	\$653
	Small	0.0500	0.50%	\$298.04	3,297	\$246
SECTOR 2A. WELDING						
General Industry	Large	0.1005	0.50%	\$298.04	8,171	\$1,223
	Small	0.0000	0.50%	\$298.04	9,155	\$0
Maritime	Large	0.9545	0.50%	\$298.04	197	\$280
	Small	0.0502	0.50%	\$298.04	112	\$8
Construction	Large	2.5621	0.50%	\$298.04	278	\$1,063
	Small	0.2512	0.50%	\$298.04	2,231	\$835
Government	State	0.1005	0.50%	\$298.04	26	\$4
	Local	0.0000	0.50%	\$298.04	819	\$0
SECTOR 2B. MILD STEEL WELDING						
General Industry	Large	0.0502	0.50%	\$298.04	10,955	\$820
	Small	0.0000	0.50%	\$298.04	11,152	\$0
Maritime	Large	0.0000	0.50%	\$298.04	425	\$0
	Small	0.0502	0.50%	\$298.04	241	\$18
Construction	Large	0.9545	0.50%	\$298.04	418	\$595
	Small	0.1005	0.50%	\$298.04	3,158	\$473
SECTOR 3. PAINTING						
General Industry AEROSPACE	Large	2.3399	0.50%	\$298.04	50	\$173

Table 25

Variables	Size	POTEXEMP * 5%	%PREVABN	MEDCOSTADD	#PLANTS	Cost
	Small	0.0459	0.50%	\$298.04	62	\$4
General Industry AUTOBODY	Large	0.5964	0.50%	\$298.04	330	\$294
	Small	0.0459	0.50%	\$298.04	1,454	\$99
COIL COATING	Large	0.0918	0.50%	\$298.04	101	\$14
	Small	0.0459	0.50%	\$298.04	18	\$1
Maritime	Large	0.1282	0.50%	\$298.04	274	\$52
	Small	0.0427	0.50%	\$298.04	474	\$30
Construction	Large	0.1121	0.50%	\$298.04	789	\$132
	Small	0.0374	0.50%	\$298.04	4,197	\$234
Governments	State	0.4597	0.50%	\$298.04	17	\$12
	Local	0.0328	0.50%	\$298.04	945	\$46
SECTOR 4. PRODUCERS OF CHROMATES						
ALL	Large	0.3500	0.50%	\$298.04	2	\$1
	Small	0.0000	0.50%	\$298.04	0	\$0
SECTOR 5. CHROMATE PIGMENT PROCEDURES						
ALL	Large	1.0000	0.50%	\$298.04	2	\$2
	Small	0.1000	0.50%	\$298.04	1	\$0
SECTOR 6. CCA PRODUCERS						
ALL	Large	0.1500	0.50%	\$298.04	3	\$1
	Small	0.0000	0.50%	\$298.04	0	\$0
SECTOR 7. CHROMIUM CATALYST PRODUCERS						
ALL	Large	1.2000	0.50%	\$298.04	5	\$8
	Small	0.0000	0.50%	\$298.04	0	\$0
SECTOR 8. PAINT AND COATING PRODUCERS						
ALL	Large	0.2500	0.50%	\$298.04	78	\$29
	Small	0.1000	0.50%	\$298.04	123	\$18
SECTOR 9. PRINTING INK PRODUCERS						
ALL	Large	0.0000	0.50%	\$298.04	2	\$0
	Small	0.0000	0.50%	\$298.04	7	\$0
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS						
ALL	Large	0.0000	0.50%	\$298.04	79	\$0
	Small	0.0000	0.50%	\$298.04	39	\$0
SECTOR 11. PLATING MIXTURE PRODUCERS						

Table 25

Variables	Size	POTEXEMP * 5%	%PREVABN	MEDCOSTADD	#PLANTS	Cost
ALL	Large	0.1500	0.50%	\$298.04	6	\$1
	Small	0.0500	0.50%	\$298.04	4	\$0
SECTOR 13. CHROMIUM METAL PRODUCERS						
ALL	Large	0.7000	0.50%	\$298.04	1	\$1
	Small	0.0000	0.50%	\$298.04	0	\$0
SECTOR 14. IRON AND STEEL MILLS						
ALL	Large	2.0822	0.50%	\$298.04	39	\$120
	Small	0.0731	0.50%	\$298.04	12	\$1
Carbon Steel	Large	0.5114	0.50%	\$298.04	116	\$89
	Small	0.0731	0.50%	\$298.04	37	\$4
SECTOR 14.B FORGING INDUSTRY						
ALL	Large	0.1500	0.50%	\$298.04	33	\$7
	Small	0.0000	0.50%	\$298.04	31	\$0
SECTOR 15. IRON AND STEEL FOUNDRIES						
ALL	Large	1.1500	0.50%	\$298.04	152	\$261
	Small	0.2500	0.50%	\$298.04	111	\$41
SECTOR 17. CHROMIUM DYE PRODUCERS						
ALL	Large	0.0000	0.50%	\$298.04	2	\$0
	Small	0.0000	0.50%	\$298.04	1	\$0
SECTOR 18. CHROMIUM SULFATE PRODUCERS						
ALL	Large	0.0000	0.50%	\$298.04	0	\$0
	Small	0.1500	0.50%	\$298.04	5	\$1
SECTOR 19. CHEMICAL DISTRIBUTORS						
ALL	Large	0.0000	0.50%	\$298.04	212	\$0
	Small	0.0000	0.50%	\$298.04	1,600	\$0
SECTOR 20. TEXTILE DYEING						
ALL	Large	0.0000	0.50%	\$298.04	307	\$0
	Small	0.0000	0.50%	\$298.04	623	\$0
SECTOR 21. COLORED GLASS PRODUCERS						
ALL	Large	0.0645	0.50%	\$298.04	8	\$1
	Small	0.0000	0.50%	\$298.04	24	\$0
Fiber, Flat, Container Glass	Large	0.7090	0.50%	\$298.04	111	\$117
	Small	0.1289	0.50%	\$298.04	6	\$1

Table 25

Variables	Size	POTEXEMP * 5%	%PREVABN	MEDCOSTADD	#PLANTS	Cost
SECTOR 22. PRINTING						
ALL	Large	0.0000	0.50%	\$298.04	78	\$0
	Small	0.0000	0.50%	\$298.04	312	\$0
SECTOR 24. CHROMIUM CATALYST USERS						
ALL	Large	0.0591	0.50%	\$298.04	193	\$17
	Small	0.0000	0.50%	\$298.04	0	\$0
Chromium Catalyst Companies	Large	0.5906	0.50%	\$298.04	25	\$22
	Small	0.2953	0.50%	\$298.04	5	\$2
SECTOR 25. REFRACTORY BRICK PRODUCERS						
ALL	Large	0.0000	0.50%	\$298.04	5	\$0
	Small	0.0000	0.50%	\$298.04	0	\$0
SECTOR 26. WOODWORKING						
General Industry	Large	0.0382	0.50%	\$298.04	143	\$8
	Small	0.0000	0.50%	\$298.04	76	\$0
Maritime	Large	0.0000	0.50%	\$298.04	36	\$0
	Small	0.0000	0.50%	\$298.04	32	\$0
Construction	Large	0.1241	0.50%	\$298.04	1,232	\$228
	Small	0.0414	0.50%	\$298.04	4,932	\$304
Government	State	0.0328	0.50%	\$298.04	17	\$1
	Local	0.0328	0.50%	\$298.04	62	\$3
SECTOR 27. SOLID WASTER INCINERATION						
ALL	Large	0.0000	0.50%	\$298.04	39	\$0
	Small	0.0000	0.50%	\$298.04	47	\$0
Government	State	0.0000	0.50%	\$298.04	0	\$0
	Local	0.0000	0.50%	\$298.04	24	\$0
SECTOR 30. SUPERALLOY PRODUCERS AND USERS						
ALL	Large	0.1000	0.50%	\$298.04	18	\$3
	Small	0.0000	0.50%	\$298.04	0	\$0
SECTOR 31. CONSTRUCTION						
Industrial Rehabilitation & Maintenance	Large	0.0000	0.50%	\$298.04	54	\$0
	Small	0.0000	0.50%	\$298.04	247	\$0
	State Gov't	0.0000	0.50%	\$298.04	16	\$0

Table 25

Variables	Size	POTEXEMP * 5%	%PREVABN	MEDCOSTADD	#PLANTS	Cost
	Local Gov't	0.0000	0.50%	\$298.04	93	\$0
Hazardous Waste Site Work	Large	0.0000	0.50%	\$298.04	43	\$0
	Small	0.0000	0.50%	\$298.04	180	\$0
	State Gov't	0.0000	0.50%	\$298.04	1	\$0
	Local Gov't	0.0000	0.50%	\$298.04	252	\$0
Refractory Brick Restoration & Maintenance	Large	0.5586	0.50%	\$298.04	47	\$39
	Small	0.0559	0.50%	\$298.04	185	\$15
Total					73,274	\$8,657

Table 26

TABLE 26: Annual Medical Examination with Additional Tests (1910.1026(k)(2)(ii) and (k)(3)(i)-(k)(3)(iii) and (i)(3)(i)-(i)(3)(iii); and 1926.1126(i)(2)(ii) and (i)(3)(i)-(i)(3)(iii)) Employee Time and Cost to Complete the Annual Medical Examination with Additional Tests

This table calculates the burden hours and costs for the time it takes an employee to receive additional tests after the employee is found to have abnormal annual medical exam test results.

$$\text{BURDEN HOURS} = (\text{LIMEMPAL} + \text{MEDEXAMADDERM}) * \% \text{ALABN} * \text{ADDMEDTIME} * \# \text{PLANTS}$$

$$\text{COST} = \text{BURDEN HOURS} * \text{NONSUPWAGE}$$

Variables:

LIMEMPAL = Number of employees requiring a limited medical exam b/c at or > AL after implementation of engineering controls.

MEDEXAMADDERM = Number of employees at or above the AL requiring a limited medical exam b/c of dermal "signs and symptoms" after the implementation of engineering controls.

%ALABN = Percent of employees exposed at or above the action level 30 days per year (and therefore requiring a limited or comprehensive medical exam who will be found to have abnormal results)

ADDMEDTIME = Three hours for an employee to receive additional testing after exam tests are abnormal.

NONSUPWAGE = Non-supervisory wage rate

#PLANTS = Number of Plants

VARIABLES	SIZE	LIMEMPAL	MEDEXAMADDERM	%ALABN	ADDMEDTIME	#PLANTS	RESPONDENTS	RESPONSES	BURDEN HOURS	NONSUPWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING											
All	Large	3	0.00000	0.50%	3	1,752	26	26	79	\$32.54	\$ 2,566
	Small	0	0.00000	0.50%	3	3,297	-	-	-	\$32.54	\$ -
SECTOR 2A. WELDING											
General Industry	Large	0	0.00000	0.50%	3	8,171	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	9,155	-	-	-	\$32.54	\$ -
Maritime	Large	14	3.01429	0.50%	3	197	17	17	50	\$32.54	\$ 1,642
	Small	1	0.00000	0.50%	3	112	1	1	2	\$32.54	\$ 55
Construction	Large	27	3.01429	0.50%	3	278	42	42	126	\$32.54	\$ 4,095
	Small	3	0.00000	0.50%	3	2,231	34	34	101	\$32.54	\$ 3,282
Government	Local	0	0.00000	0.50%	3	26	-	-	-	\$32.54	\$ -
	State	0	0.00000	0.50%	3	819	-	-	-	\$32.54	\$ -
SECTOR 2B. MILD STEEL WELDING											
General Industry	Large	0	0.00000	0.50%	3	10,955	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	11,152	-	-	-	\$32.54	\$ -
Maritime	Large	0	0.00000	0.50%	3	425	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	241	-	-	-	\$32.54	\$ -
Construction	Large	10	0.00000	0.50%	3	418	21	21	63	\$32.54	\$ 2,050
	Small	1	0.00000	0.50%	3	3,158	16	16	48	\$32.54	\$ 1,549
SECTOR 3. PAINTING											
Aerospace	Large	46	0.00000	0.50%	3	50	11	11	34	\$32.54	\$ 1,110
	Small	0	0.00000	0.50%	3	62	-	-	-	\$32.54	\$ -
Autobody	Large	1	0.00000	0.50%	3	330	2	2	5	\$32.54	\$ 148
	Small	0	0.00000	0.50%	3	1,454	-	-	-	\$32.54	\$ -
Coil Coating	Large	2	0.00000	0.50%	3	101	1	1	3	\$32.54	\$ 90
	Small	1	0.00000	0.50%	3	18	0.1	0.1	0.3	\$32.54	\$ 8

Table 26

VARIABLES	SIZE	LIMEMPAL	MEDEXAMADDERM	%ALABN	ADDMEDTIME	#PLANTS	RESPONDENTS	RESPONSES	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
Maritime	Large	2	0.00000	0.50%	3	274	2	2	7	\$32.54	\$ 229
	Small	1	0.00000	0.50%	3	474	2	2	6	\$32.54	\$ 198
Construction	Large	2	0.00000	0.50%	3	789	9	9	27	\$32.54	\$ 864
	Small	0	0.00000	0.50%	3	4,197	-	-	-	\$32.54	\$ -
Government	Local	0	0.00000	0.50%	3	17	-	-	-	\$32.54	\$ -
	State	9	0.00000	0.50%	3	945	43	43	130	\$32.54	\$ 4,241
SECTOR 4. PRODUCERS OF CHROMATES											
All	Large	7	0.00000	0.50%	3	2	0.1	0.1	0.2	\$32.54	\$ 6
	Small	0	0.00000	0.50%	3	0	-	-	-	\$32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES											
All	Large	7	0.00000	0.50%	3	2	0.1	0.1	0.2	\$32.54	\$ 6
	Small	1	0.00000	0.50%	3	1	0.004	0.004	0.01	\$32.54	\$ 0.4
SECTOR 6. CCA PRODUCERS											
All	Large	2	0.00000	0.50%	3	3	0.03	0.03	0.1	\$32.54	\$ 3
	Small	0	0.00000	0.50%	3	0	-	-	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS											
All	Large	11	0.00000	0.50%	3	5	0.3	0.3	1	\$32.54	\$ 25
	Small	0	0.00000	0.50%	3	0	-	-	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS											
All	Large	1	0.00338	0.50%	3	78	0.4	0.4	1	\$32.54	\$ 38
	Small	0	0.00000	0.50%	3	123	-	-	-	\$32.54	\$ -
SECTOR 9. PRINTING INK PRODUCERS											
All	Large	0	0.00000	0.50%	3	2	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	7	-	-	-	\$32.54	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS											
All	Large	0	0.00000	0.50%	3	79	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	39	-	-	-	\$32.54	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS											
All	Large	3	0.00000	0.50%	3	6	0.1	0.1	0.3	\$32.54	\$ 9
	Small	1	0.00000	0.50%	3	4	0.02	0.02	0.1	\$32.54	\$ 2
SECTOR 13. CHROMIUM METAL PRODUCERS											
All	Large	8	0.00000	0.50%	3	1	0.04	0.04	0.1	\$32.54	\$ 4
	Small	0	0.00000	0.50%	3	0	-	-	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS											
Alloy Stainless Steel	Large	31	0.00675	0.50%	3	39	6	6	18	\$32.54	\$ 580
	Small	1	0.00032	0.50%	3	12	0.1	0.1	0	\$32.54	\$ 9
Carbon Steel	Large	1	0.00016	0.50%	3	116	0.4	0.4	1	\$32.54	\$ 41
	Small	1	0.00032	0.50%	3	37	0.3	0.3	1	\$32.54	\$ 26
SECTOR 14.B FORGING INDUSTRY											
Reshaping	Large	0	0.00064	0.50%	3	33	0.0001	0.0001	0.0003	\$32.54	\$ 0.010

Table 26

VARIABLES	SIZE	LIMPAL	MEDEXAMADDERM	%ALABN	ADDMEDTIME	#PLANTS	RESPONDENTS	RESPONSES	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
	Small	0	0.00016	0.50%	3	31	0.00003	0.00003	0.0001	\$32.54	\$ 0.002
SECTOR 15. IRON AND STEEL FOUNDRIES											
All	Large	16	0.00000	0.50%	3	152	12	12	37	\$32.54	\$ 1,188
	Small	4	0.00000	0.50%	3	111	2	2	7	\$32.54	\$ 216
SECTOR 17. CHROMIUM DYE PRODUCERS											
All	Large	0	0.00000	0.50%	3	2	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	1	-	-	-	\$32.54	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS											
All	Large	0	0.00000	0.50%	3	0	-	-	-	\$32.54	\$ -
	Small	1	0.00000	0.50%	3	5	0.02	0.02	0.1	\$32.54	\$ 2
SECTOR 19. CHEMICAL DISTRIBUTORS											
All	Large	0	0.00000	0.50%	3	212	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	1,600	-	-	-	\$32.54	\$ -
SECTOR 20. TEXTILE DYEING											
All	Large	0	0.00000	0.50%	3	307	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	623	-	-	-	\$32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS											
All	Large	1	0.00000	0.50%	3	8	0.05	0.05	0.1	\$32.54	\$ 5
	Small	0	0.00000	0.50%	3	24	-	-	-	\$32.54	\$ -
Fiber, Flat and Container Glass	Large	12	0.00000	0.50%	3	111	6	6	19	\$32.54	\$ 628
	Small	3	0.00000	0.50%	3	6	0.1	0.1	0.2	\$32.54	\$ 8
SECTOR 22. PRINTING											
All	Large	0	0.00000	0.50%	3	78	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	312	-	-	-	\$32.54	\$ -
SECTOR 24. CHROMIUM CATALYST USERS											
Catalyst Users	Large	0	0.00000	0.50%	3	193	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	0	-	-	-	\$32.54	\$ -
Chromium Catalyst Service Companies	Large	6	0.00000	0.50%	3	25	1	1	2	\$32.54	\$ 71
	Small	4	0.00000	0.50%	3	5	0.1	0.1	0.3	\$32.54	\$ 8
SECTOR 25. REFRACTORY BRICK PRODUCERS											
All	Large	0	0.00000	0.50%	3	5	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	0	-	-	-	\$32.54	\$ -
SECTOR 26. WOODWORKING											
General Industry	Large	0	0.00000	0.50%	3	143	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	76	-	-	-	\$32.54	\$ -
Maritime	Large	0	0.00000	0.50%	3	36	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	32	-	-	-	\$32.54	\$ -
Construction	Large	1	0.00000	0.50%	3	1,232	5	5	15	\$32.54	\$ 498
	Small	1	0.00000	0.50%	3	4,932	20	20	61	\$32.54	\$ 1,992
Government	State	1	0.00000	0.50%	3	17	0.1	0.1	0	\$32.54	\$ 5

Table 26

VARIABLES	SIZE	LIMEMPAL	MEDEXAMADDERM	%ALABN	ADDMEDTIME	#PLANTS	RESPONDENTS	RESPONSES	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
	Local	1	0.00000	0.50%	3	62	0.2	0.2	1	\$32.54	\$ 20
SECTOR 27. SOLID WASTER INCINERATION											
All	Large	0	0.00000	0.50%	3	39	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	47	-	-	-	\$32.54	\$ -
Government	State	0	0.00000	0.50%	3	0	-	-	-	\$32.54	\$ -
	Local	0	0.00000	0.50%	3	24	-	-	-	\$32.54	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS											
All	Large	4	2.00000	0.50%	3	18	1	1	2	\$32.54	\$ 50
	Small	0	0.00000	0.50%	3	0	-	-	-	\$32.54	\$ -
SECTOR 31. CONSTRUCTION											
Industrial Rehabilitation & Maintenance	Large	0	0.00000	0.50%	3	54	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	247	-	-	-	\$32.54	\$ -
	State Gov't	0	0.00000	0.50%	3	16	-	-	-	\$32.54	\$ -
	Local Gov't	0	0.00000	0.50%	3	93	-	-	-	\$32.54	\$ -
Hazardous Waste Site Work	Large	0	0.00000	0.50%	3	43	-	-	-	\$32.54	\$ -
	Small	0	0.00000	0.50%	3	180	-	-	-	\$32.54	\$ -
	State Gov't	0	0.00000	0.50%	3	1	-	-	-	\$32.54	\$ -
	Local Gov't	0	0.00000	0.50%	3	252	-	-	-	\$32.54	\$ -
Refractory Brick Restoration	Large	1	0.00000	0.50%	3	47	0.3	0.3	1	\$32.54	\$ 26
	Small	1	0.00000	0.50%	3	185	1	1	3	\$32.54	\$ 101
Average/Total					3	73,274	284	284	852	\$32.54	\$ 27,724

Table 27

Annual Medical Examination with Additional Tests (§§ 1910.1026(k)(2)(ii) and (k)(3)(i)-(k)(3)(iii); 1915.1026(i)(2)(ii) and (i)(3)(i)-(i)(3)(iii); and 1926.1126(i)(2)(ii) and (i)(3)(i)-(i)(3)(iii)) Contract Cost for a PLHCP to Conduct the Annual Medical Examination with Additional Tests

This table calculates the cost for a contractor PLHCP to conduct additional medical testing for those employees who have abnormal annual medical examination results. Abnormal results will require additional medical testing "as deemed appropriate by the physician."

$$\text{COST} = (\text{LIMEMPAL} + \text{MEDEXAMADDERM}) * \% \text{ALBN} * \text{MEDCOSTADD} * \# \text{PLANTS}$$

Variables:

LIMEMPAL = Number of employees requiring a limited medical exam b/c at or > AL after implementation of engineering controls.

MEDEXAMADDERM = Number of employees at or above the AL requiring a limited medical exam b/c of dermal

%ALBN = Percent of employees exposed at or above the action level 30 days per year (and therefore requiring a limited or comprehensive medical exam who will be found to have abnormal results

#PLANTS = Number of Plants

		0					
Variables	Size	LIMEMPAL	MEDEXAMADDERM	%ALBN	MEDCOSTADD	#PLANTS	Cost
SECTOR 1. ELECTROPLATING							
All	Large	3	0.000000	0.50%	\$298.04	1,752	\$7,834
	Small	0	0.000000	0.50%	\$298.04	3,297	\$0
SECTOR 2A. WELDING							
General Industry	Large	0	0.000000	0.50%	\$298.04	8,171	\$0
	Small	0	0.000000	0.50%	\$298.04	9,155	\$0
Maritime	Large	14	3.014286	0.50%	\$298.04	197	\$5,013
	Small	1	0.000000	0.50%	\$298.04	112	\$167
Construction	Large	27	3.014286	0.50%	\$298.04	278	\$12,502
	Small	3	0.000000	0.50%	\$298.04	2,231	\$10,020
Government	State	0	0.000000	0.50%	\$298.04	26	\$0
	Local	0	0.000000	0.50%	\$298.04	819	\$0
SECTOR 2B. MILD STEEL WELDING							
General Industry	Large	0	0.000000	0.50%	\$298.04	10,955	\$0
	Small	0	0.000000	0.50%	\$298.04	11,152	\$0
Maritime	Large	0	0.000000	0.50%	\$298.04	425	\$0
	Small	0	0.000000	0.50%	\$298.04	241	\$0
Construction	Large	10	0.000000	0.50%	\$298.04	418	\$6,258
	Small	1	0.000000	0.50%	\$298.04	3,158	\$4,728
SECTOR 3. PAINTING							
General Industry AEROSPACE	Large	46	0.000000	0.50%	\$298.04	50	\$3,388
	Small	0	0.000000	0.50%	\$298.04	62	\$0
General Industry AUTOBODY	Large	1	0.000000	0.50%	\$298.04	330	\$452
	Small	0	0.000000	0.50%	\$298.04	1,454	\$0
COIL COATING	Large	2	0.000000	0.50%	\$298.04	101	\$276
	Small	1	0.000000	0.50%	\$298.04	18	\$25

Table 27

Variables	Size	LIMEPAL	MEDEXAMADDERM	%ALABN	MEDCOSTADD	#PLANTS	Cost
Maritime	Large	2	0.000000	0.50%	\$298.04	274	\$699
	Small	1	0.000000	0.50%	\$298.04	474	\$604
Construction	Large	2	0.000000	0.50%	\$298.04	789	\$2,638
	Small	0	0.000000	0.50%	\$298.04	4,197	\$0
Governments	State	0	0.000000	0.50%	\$298.04	17	\$0
	Local	9	0.000000	0.50%	\$298.04	945	\$12,949
SECTOR 4. PRODUCERS OF CHROMATES							
ALL	Large	7	0.000000	0.50%	\$298.04	2	\$19
	Small	0	0.000000	0.50%	\$298.04	0	\$0
SECTOR 5. CHROMATE PIGMENT PROCEDURES							
ALL	Large	7	0.000000	0.50%	\$298.04	2	\$17
	Small	1	0.000000	0.50%	\$298.04	1	\$1
SECTOR 6. CCA PRODUCERS							
ALL	Large	2	0.000000	0.50%	\$298.04	3	\$8
	Small	0	0.000000	0.50%	\$298.04	0	\$0
SECTOR 7. CHROMIUM CATALYST PRODUCERS							
ALL	Large	11	0.000000	0.50%	\$298.04	5	\$76
	Small	0	0.000000	0.50%	\$298.04	0	\$0
SECTOR 8. PAINT AND COATING PRODUCERS							
ALL	Large	1	0.003380	0.50%	\$298.04	78	\$117
	Small	0	0.000000	0.50%	\$298.04	123	\$0
SECTOR 9. PRINTING INK PRODUCERS							
ALL	Large	0	0.000000	0.50%	\$298.04	2	\$0
	Small	0	0.000000	0.50%	\$298.04	7	\$0
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS							
ALL	Large	0	0.000000	0.50%	\$298.04	79	\$0
	Small	0	0.000000	0.50%	\$298.04	39	\$0
SECTOR 11. PLATING MIXTURE PRODUCERS							
ALL	Large	3	0.000000	0.50%	\$298.04	6	\$26
	Small	1	0.000000	0.50%	\$298.04	4	\$6
SECTOR 13. CHROMIUM METAL PRODUCERS							
ALL	Large	8	0.000000	0.50%	\$298.04	1	\$12
	Small	0	0.000000	0.50%	\$298.04	0	\$0
SECTOR 14. IRON AND STEEL MILLS							
ALL	Large	31	0.006751	0.50%	\$298.04	39	\$1,771
	Small	1	0.000321	0.50%	\$298.04	12	\$27
Carbon Steel	Large	1	0.000161	0.50%	\$298.04	116	\$127
	Small	1	0.000321	0.50%	\$298.04	37	\$80
SECTOR 14.B FORGING INDUSTRY							

Table 27

Variables	Size	LIMEPAL	MEDEXAMADDERM	%ALABN	MEDCOSTADD	#PLANTS	Cost
ALL	Large	0	0.000643	0.50%	\$298.04	33	\$0
	Small	0	0.000161	0.50%	\$298.04	31	\$0
SECTOR 15. IRON AND STEEL FOUNDRIES							
ALL	Large	16	0.000000	0.50%	\$298.04	152	\$3,628
	Small	4	0.000000	0.50%	\$298.04	111	\$660
SECTOR 17. CHROMIUM DYE PRODUCERS							
ALL	Large	0	0.000000	0.50%	\$298.04	2	\$0
	Small	0	0.000000	0.50%	\$298.04	1	\$0
SECTOR 18. CHROMIUM SULFATE PRODUCERS							
ALL	Large	0	0.000000	0.50%	\$298.04	0	\$0
	Small	1	0.000000	0.50%	\$298.04	5	\$7
SECTOR 19. CHEMICAL DISTRIBUTORS							
ALL	Large	0	0.000000	0.50%	\$298.04	212	\$0
	Small	0	0.000000	0.50%	\$298.04	1,600	\$0
SECTOR 20. TEXTILE DYEING							
ALL	Large	0	0.000000	0.50%	\$298.04	307	\$0
	Small	0	0.000000	0.50%	\$298.04	623	\$0
SECTOR 21. COLORED GLASS PRODUCERS							
ALL	Large	1	0.000000	0.50%	\$298.04	8	\$15
	Small	0	0.000000	0.50%	\$298.04	24	\$0
Fiber, Flat, Container Glass	Large	12	0.000000	0.50%	\$298.04	111	\$1,917
	Small	3	0.000000	0.50%	\$298.04	6	\$25
SECTOR 22. PRINTING							
ALL	Large	0	0.000000	0.50%	\$298.04	78	\$0
	Small	0	0.000000	0.50%	\$298.04	312	\$0
SECTOR 24. CHROMIUM CATALYST USERS							
ALL	Large	0	0.000000	0.50%	\$298.04	193	\$0
	Small	0	0.000000	0.50%	\$298.04	0	\$0
Chromium Catalyst Companies	Large	6	0.000000	0.50%	\$298.04	25	\$218
	Small	4	0.000000	0.50%	\$298.04	5	\$25
SECTOR 25. REFRACTORY BRICK PRODUCERS							
ALL	Large	0	0.000000	0.50%	\$298.04	5	\$0
	Small	0	0.000000	0.50%	\$298.04	0	\$0
SECTOR 26. WOODWORKING							
General Industry	Large	0	0.000000	0.50%	\$298.04	143	\$0
	Small	0	0.000000	0.50%	\$298.04	76	\$0
Maritime	Large	0	0.000000	0.50%	\$298.04	36	\$0
	Small	0	0.000000	0.50%	\$298.04	32	\$0
	Large	1	0.000000	0.50%	\$298.04	1,232	\$1,520

Table 27

Variables	Size	LIMEPAL	MEDEXAMADDERM	%ALABN	MEDCOSTADD	#PLANTS	Cost
Construction	Small	1	0.000000	0.50%	\$298.04	4,932	\$6,083
Government	State	1	0.000000	0.50%	\$298.04	17	\$17
	Local	1	0.000000	0.50%	\$298.04	62	\$60
SECTOR 27. SOLID WASTER INCINERATION							
ALL	Large	0	0.000000	0.50%	\$298.04	39	\$0
	Small	0	0.000000	0.50%	\$298.04	47	\$0
Government	State	1	0.000000	0.50%	\$298.04	0	\$0
	Local	0	0.000000	0.50%	\$298.04	24	\$0
SECTOR 30. SUPERALLOY PRODUCERS AND USERS							
ALL	Large	2	2.000000	0.50%	\$298.04	18	\$105
	Small	0	0.000000	0.50%	\$298.04	0	\$0
SECTOR 31. CONSTRUCTION							
Industrial Rehabilitation & Maintenance	Large	0	0.000000	0.50%	\$298.04	54	\$0
	Small	0	0.000000	0.50%	\$298.04	247	\$0
	State Gov't	0	0.000000	0.50%	\$298.04	16	\$0
	Local Gov't	0	0.000000	0.50%	\$298.04	93	\$0
Hazardous Waste Site Work	Large	0	0.000000	0.50%	\$298.04	43	\$0
	Small	0	0.000000	0.50%	\$298.04	180	\$0
	State Gov't	0	0.000000	0.50%	\$298.04	1	\$0
	Local Gov't	0	0.000000	0.50%	\$298.04	252	\$0
Refractory Brick Restoration & Maintenance	Large	1	0.000000	0.50%	\$298.04	47	\$78
	Small	1	0.000000	0.50%	\$298.04	185	\$0
Total						73,274	\$84,199

Table 28

TABLE 28: Medical Examination After Initial Assignment (§§1910.1026(k)(2)(i), (k)(3)(i), and (k)(3)(ii); 1915.1026(i)(2)(i), (i)(3)(i), and (i)(3)(ii); and 1926.1126(i)(2)(i), (i)(3)(i), and (i)(3)(ii)) Employee Time and Cost to Complete the Medical Examination After Initial Assignment
This table calculates the burden hours and cost for those employees who are newly assigned to operations that involve exposure at or above the action level to receive medical examinations. It is estimated that the employee will be provided a comprehensive medical examination.

$$\text{BURDEN HOURS} = (\text{LIMEMPAL} + \text{MEDEXAMADDERM}) * \text{TURNOVER} * \text{COMPFULLTIME} * (1 - \% \text{BASEMED}) * \# \text{PLANTS}$$

$$\text{COST} = \text{BURDEN HOURS} * \text{NONSUPWAGE}$$

Variables:

LIMEMPAL = Number of employees requiring a limited medical exam b/c at or > AL after implementation of engineering controls.

MEDEXAMADDERM = Number of employees at or above the AL requiring a limited medical exam b/c of dermal "signs and symptoms" after the implementation of engineering controls.

COMPFULLTIME = 4 hours for an employee to receive a comprehensive medical examination

NONSUPWAGE = Non-supervisory wage rate

1-%BASEMED = Percentage of plants that are not providing annual medical examinations.

#PLANTS = Number of Plants

VARIABLES	SIZE	LIMEMPAL	MEDEXAMADDERM	TURNOVER	1-%BASEMED	#PLANTS	RESPONDENTS	RESPONSES	COMPFULLTIME	BURDEN HOURS	NONSUPWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING												
All	Large	3	0.00000	43%	0.00%	1,752	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	0.00%	3,297	-	-	4	-	\$32.54	\$ -
SECTOR 2A. WELDING												
General Industry	Large	0	0.00000	43%	95.00%	8,171	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	100.00%	9,155	-	-	4	-	\$32.54	\$ -
Maritime	Large	14	3.01429	43%	95.00%	197	1,374	1,374	4	5,496	\$32.54	\$ 178,862
	Small	1	0.00000	43%	100.00%	112	48	48	4	193	\$32.54	\$ 6,272
Construction	Large	27	3.01429	43%	95.00%	278	3,427	3,427	4	13,708	\$32.54	\$ 446,082
	Small	3	0.00000	43%	100.00%	2,231	2,891	2,891	4	11,565	\$32.54	\$ 376,326
Government	Local	0	0.00000	43%	95.00%	26	-	-	4	-	\$32.54	\$ -
	State	0	0.00000	43%	100.00%	819	-	-	4	-	\$32.54	\$ -
SECTOR 2B. MILD STEEL WELDING												
General Industry	Large	0	0.00000	43%	95.00%	10,955	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	100.00%	11,152	-	-	4	-	\$32.54	\$ -
Maritime	Large	0	0.00000	43%	95.00%	425	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	100.00%	241	-	-	4	-	\$32.54	\$ -
Construction	Large	10	0.00000	43%	95.00%	418	1,716	1,716	4	6,862	\$32.54	\$ 223,309
	Small	1	0.00000	43%	100.00%	3,158	1,364	1,364	4	5,458	\$32.54	\$ 177,596
SECTOR 3. PAINTING												
Aerospace	Large	46	0.00000	43%	20.00%	50	196	196	4	782	\$32.54	\$ 25,449
	Small	0	0.00000	43%	50.00%	62	-	-	4	-	\$32.54	\$ -
Autobody	Large	1	0.00000	43%	20.00%	330	26	26	4	104	\$32.54	\$ 3,393
	Small	0	0.00000	43%	50.00%	1,454	-	-	4	-	\$32.54	\$ -
Coil Coating	Large	2	0.00000	43%	20.00%	101	16	16	4	64	\$32.54	\$ 2,074
	Small	1	0.00000	43%	50.00%	18	4	4	4	14	\$32.54	\$ 471
Maritime	Large	2	0.00000	43%	0.00%	274	-	-	4	-	\$32.54	\$ -
	Small	1	0.00000	43%	50.00%	474	87	87	4	349	\$32.54	\$ 11,351
Construction	Large	2	0.00000	43%	0.00%	789	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	0.00%	4,197	-	-	4	-	\$32.54	\$ -
Government	Local	0	0.00000	43%	0.00%	17	-	-	4	-	\$32.54	\$ -
	State	9	0.00000	43%	0.00%	945	-	-	4	-	\$32.54	\$ -
SECTOR 4. PRODUCERS OF CHROMATES												
	Large	7	0.00000	43%	50.00%	2	3	3	4	11	\$32.54	\$ 365

Table 28

VARIABLES	SIZE	LIMEMPAL	MEDEXAMADDERIV	TURNOVER	1-%BASEMED	#PLANTS	RESPONDENTS	RESPONSES	COMPUFULLTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
All	Small	0	0.00000	43%	100.00%	0	-	-	4	-	\$32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES												
All	Large	7	0.00000	43%	0.00%	2	-	-	4	-	\$32.54	\$ -
	Small	1	0.00000	43%	0.00%	1	-	-	4	-	\$32.54	\$ -
SECTOR 6. CCA PRODUCERS												
All	Large	2	0.00000	43%	0.00%	3	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	100.00%	0	-	-	4	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS												
ALL	Large	11	0.00000	43%	0.00%	5	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	0.00%	0	-	-	4	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS												
ALL	Large	1	0.00338	43%	0.00%	78	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	0.00%	123	-	-	4	-	\$32.54	\$ -
SECTOR 9. PRINTING INK PRODUCERS												
ALL	Large	0	0.00000	43%	20.00%	2	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	90.00%	7	-	-	4	-	\$32.54	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS												
All	Large	0	0.00000	43%	0.00%	79	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	0.00%	39	-	-	4	-	\$32.54	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS												
All	Large	3	0.00000	43%	50.00%	6	4	4	4	15	\$32.54	\$ 497
	Small	1	0.00000	43%	70.00%	4	1	1	4	5	\$32.54	\$ 155
SECTOR 13. CHROMIUM METAL PRODUCERS												
All	Large	8	0.00000	43%	0.00%	1	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	100.00%	0	-	-	4	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS												
Alloy Stainless Steel	Large	31	0.00675	43%	50.00%	39	256	256	4	1,022	\$32.54	\$ 33,260
	Small	1	0.00032	43%	70.00%	12	5	5	4	22	\$32.54	\$ 711
Carbon Steel	Large	1	0.00016	43%	50.00%	116	18	18	4	73	\$32.54	\$ 2,376
	Small	1	0.00032	43%	70.00%	37	16	16	4	64	\$32.54	\$ 2,092
SECTOR 14.B FORGING INDUSTRY												
Reshaping	Large	0	0.00064	43%	50.00%	33	0.005	0.005	4	0.02	\$32.54	\$ 1
	Small	0	0.00016	43%	70.00%	31	0.002	0.002	4	0.01	\$32.54	\$ 0.2
SECTOR 15. IRON AND STEEL FOUNDRIES												
All	Large	16	0.00000	43%	20.00%	152	209	209	4	837	\$32.54	\$ 27,252
	Small	4	0.00000	43%	90.00%	111	171	171	4	685	\$32.54	\$ 22,297
SECTOR 17. CHROMIUM DYE PRODUCERS												
All	Large	0	0.00000	43%	0.00%	2	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	0.00%	1	-	-	4	-	\$32.54	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS												
All	Large	0	0.00000	43%	0.00%	0	-	-	4	-	\$32.54	\$ -
	Small	1	0.00000	43%	0.00%	5	-	-	4	-	\$32.54	\$ -
SECTOR 19. CHEMICAL DISTRIBUTORS												
All	Large	0	0.00000	43%	100.00%	212	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	100.00%	1,600	-	-	4	-	\$32.54	\$ -
SECTOR 20. TEXTILE DYEING												
	Large	0	0.00000	43%	20.00%	307	-	-	4	-	\$32.54	\$ -

Table 28

VARIABLES	SIZE	LIMEMPAL	MEDEXAMADDERIV	TURNOVER	1-%BASEMED	#PLANTS	RESPONDENTS	RESPONSES	COMPUFTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
All	Small	0	0.00000	43%	90.00%	623	-	-	4	-	\$32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS												
All	Large	1	0.00000	43%	20.00%	8	1	1	4	3	\$32.54	\$ 112
	Small	0	0.00000	43%	90.00%	24	-	-	4	-	\$32.54	\$ -
Fiber, Flat and Container Glass	Large	12	0.00000	43%	20.00%	111	111	111	4	442	\$32.54	\$ 14,399
	Small	3	0.00000	43%	90.00%	6	6	6	4	26	\$32.54	\$ 837
SECTOR 22. PRINTING												
All	Large	0	0.00000	43%	20.00%	78	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	90.00%	312	-	-	4	-	\$32.54	\$ -
SECTOR 24. CHROMIUM CATALYST USERS												
Catalyst Users	Large	0	0.00000	43%	20.00%	193	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	20.00%	0	-	-	4	-	\$32.54	\$ -
Chromium Catalyst Service Companies	Large	6	0.00000	43%	20.00%	25	13	13	4	50	\$32.54	\$ 1,640
	Small	4	0.00000	43%	20.00%	5	1	1	4	6	\$32.54	\$ 187
SECTOR 25. REFRACTORY BRICK PRODUCERS												
All	Large	0	0.00000	43%	20.00%	5	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	90.00%	0	-	-	4	-	\$32.54	\$ -
SECTOR 26. WOODWORKING												
General Industry	Large	0	0.00000	43%	75.00%	143	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	100.00%	76	-	-	4	-	\$32.54	\$ -
Maritime	Large	0	0.00000	43%	75.00%	36	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	100.00%	32	-	-	4	-	\$32.54	\$ -
Construction	Large	1	0.00000	43%	50.00%	1,232	219	219	4	877	\$32.54	\$ 28,540
	Small	1	0.00000	43%	50.00%	4,932	878	878	4	3,510	\$32.54	\$ 114,235
Government	State	1	0.00000	43%	50.00%	17	2	2	4	10	\$32.54	\$ 314
	Local	1	0.00000	43%	50.00%	62	9	9	4	35	\$32.54	\$ 1,135
SECTOR 27. SOLID WASTER INCINERATION												
All	Large	0	0.00000	43%	50.00%	39	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	70.00%	47	-	-	4	-	\$32.54	\$ -
Government	State	1	0.00000	43%	50.00%	0	-	-	4	-	\$32.54	\$ -
	Local	0	0.00000	43%	70.00%	24	-	-	4	-	\$32.54	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS												
All	Large	2	2.00000	43%	50.00%	18	15	15	4	60	\$32.54	\$ 1,963
	Small	0	0.00000	43%	70.00%	0	-	-	4	-	\$32.54	\$ -
SECTOR 31. CONSTRUCTION												
Industrial Rehabilitation & Maintenance	Large	0	0.00000	43%	50.00%	54	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	50.00%	247	-	-	4	-	\$32.54	\$ -
	State Gov't	0	0.00000	43%	50.00%	16	-	-	4	-	\$32.54	\$ -
	Local Gov't	0	0.00000	43%	50.00%	93	-	-	4	-	\$32.54	\$ -
Hazardous Waste Site Work	Large	0	0.00000	43%	50.00%	43	-	-	4	-	\$32.54	\$ -
	Small	0	0.00000	43%	50.00%	180	-	-	4	-	\$32.54	\$ -
	State Gov't	0	0.00000	43%	50.00%	1	-	-	4	-	\$32.54	\$ -
	Local Gov't	0	0.00000	43%	50.00%	252	-	-	4	-	\$32.54	\$ -
Refractory Brick Restoration	Large	1	0.00000	43%	50.00%	47	11	11	4	45	\$32.54	\$ 1,466

Table 28

VARIABLES	SIZE	LIMEMPAL	MEDEXAMADDERIV	TURNOVER	1-%BASEMED	#PLANTS	RESPONDENTS	RESPONSES	COMPFULLTIME	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
	Small	1	0.00000	43%	50.00%	185	45	45	4	178	\$32.54	\$ 5,798
Total						73,274	13,143	13,143	4	52,572	\$32.54	\$ 1,710,693

Table 29

Medical Examination After Initial Assignment (§§1910.1026(k)(2)(i), (k)(3)(i), and (k)(3)(ii);1915.1026(i)(2)(i), (i)(3)(i), and (i)(3)(ii); and 1926.1126(i)(2)(i), (i)(3)(i), and (i)(3)(ii)) Contract Cost for a PLHCP to Conduct the Medical Examination After Initial Assignment
 This table calculates the cost for a contractor PLHCP to conduct medical examinations to employees newly assigned to operations that involve exposure at or above the action level.

$$\text{Hours} = (\text{LIMEMPAL} + \text{MEDEXAMADDERM}) * \text{TURNOVER} * \text{COMPFULLCOST} * (1 - \% \text{BASEMED}) * \# \text{PLANTS}$$

$$\text{Cost} = \text{Hours} * \text{NONSUPWAGE}$$

Variables:

* **LIMEMPAL** = Number of employees requiring a limited medical exam b/c at or > AL after implementation of engineering controls.

* **MEDEXAMADDERM** = Number of employees at or above the AL requiring a limited medical exam b/c of dermal "signs and symptoms" after the implementation of engineering controls.

* **COMPFULLCOST** = Cost for an employer to administer a comprehensive medical examination

1-%BASEMED = Percentage of establishments that do not have annual medical surveillance for their employees in the baseline.

* **#PLANTS** = Number of Plants

0								
Variables	Size	LIMEMPAL	MEDEXAMADDERM	TURNOVER	COMPFULLCOST	1-%BASEMED	#PLANTS	Cost
SECTOR 1. ELECTROPLATING								
ALL	Large	3	0.00000	43%	\$560.32	0.00%	1,752	\$0
	Small	0	0.00000	43%	\$560.32	0.00%	3,297	\$0
SECTOR 2A. WELDING								
General Industry	Large	0	0.00000	43%	\$560.32	95.00%	8,171	\$0
	Small	0	0.00000	43%	\$560.32	100.00%	9,155	\$0
Maritime	Large	14	3.01429	43%	\$560.32	95.00%	197	\$769,944
	Small	1	0.00000	43%	\$560.32	100.00%	112	\$26,999
Construction	Large	27	3.01429	43%	\$560.32	95.00%	278	\$1,920,237
	Small	3	0.00000	43%	\$560.32	100.00%	2,231	\$1,619,961
GOVERNMENT	Local	0	0.00000	43%	\$560.32	95.00%	26	\$0
	State	0	0.00000	43%	\$560.32	100.00%	819	\$0
SECTOR 2B. MILD STEEL WELDING								
General Industry	Large	0	0.00000	43%	\$560.32	95.00%	10,955	\$0
	Small	0	0.00000	43%	\$560.32	100.00%	11,152	\$0
Maritime	Large	0	0.00000	43%	\$560.32	95.00%	425	\$0
	Small	0	0.00000	43%	\$560.32	100.00%	241	\$0
Construction	Large	10	0.00000	43%	\$560.32	95.00%	418	\$961,274
	Small	1	0.00000	43%	\$560.32	100.00%	3,158	\$764,495
SECTOR 3. PAINTING								
AEROSPACE	Large	46	0.00000	43%	\$560.32	20.00%	50	\$109,551
	Small	0	0.00000	43%	\$560.32	50.00%	62	\$0
	Large	1	0.00000	43%	\$560.32	20.00%	330	\$14,607

Table 29

Variables	Size	LIMEPAL	MEDEXAMADDERM	TURNOVER	COMPFULLCOST	1-%BASEMED	#PLANTS	Cost
Autobody	Small	0	0.00000	43%	\$560.32	50.00%	1,454	\$0
Coil Coating	Large	2	0.00000	43%	\$560.32	20.00%	101	\$8,926
	Small	1	0.00000	43%	\$560.32	50.00%	18	\$2,029
Maritime	Large	2	0.00000	43%	\$560.32	0.00%	274	\$0
	Small	1	0.00000	43%	\$560.32	50.00%	474	\$48,862
Construction	Large	2	0.00000	43%	\$560.32	0.00%	789	\$0
	Small	0	0.00000	43%	\$560.32	0.00%	4,197	\$0
Government	Local	0	0.00000	43%	\$560.32	0.00%	17	\$0
	State	9	0.00000	43%	\$560.32	0.00%	945	\$0
SECTOR 4. PRODUCERS OF CHROMATES								
ALL	Large	7	0.00000	43%	\$560.32	50.00%	2	\$1,571
	Small	0	0.00000	43%	\$560.32	100.00%	0	\$0
SECTOR 5. CHROMATE PIGMENT PROCEDURES								
ALL	Large	7	0.00000	43%	\$560.32	0.00%	2	\$0
	Small	1	0.00000	43%	\$560.32	0.00%	1	\$0
SECTOR 6. CCA PRODUCERS								
ALL	Large	2	0.00000	43%	\$560.32	0.00%	3	\$0
	Small	0	0.00000	43%	\$560.32	100.00%	0	\$0
SECTOR 7. CHROMIUM CATALYST PRODUCERS								
ALL	Large	11	0.00000	43%	\$560.32	0.00%	5	\$0
	Small	0	0.00000	43%	\$560.32	0.00%	0	\$0
SECTOR 8. PAINT AND COATING PRODUCERS								
ALL	Large	1	0.00338	43%	\$560.32	0.00%	78	\$0
	Small	0	0.00000	43%	\$560.32	0.00%	123	\$0
SECTOR 9. PRINTING INK PRODUCERS								
ALL	Large	0	0.00000	43%	\$560.32	20.00%	2	\$0
	Small	0	0.00000	43%	\$560.32	90.00%	7	\$0
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS								
ALL	Large	0	0.00000	43%	\$560.32	0.00%	79	\$0
	Small	0	0.00000	43%	\$560.32	0.00%	39	\$0
SECTOR 11. PLATING MIXTURE PRODUCERS								
ALL	Large	3	0.00000	43%	\$560.32	50.00%	6	\$2,139
	Small	1	0.00000	43%	\$560.32	70.00%	4	\$665
SECTOR 13. CHROMIUM METAL PRODUCERS								
ALL	Large	8	0.00000	43%	\$560.32	0.00%	1	\$0

Table 29

Variables	Size	LIMEPAL	MEDEXAMADDERM	TURNOVER	COMPFULLCOST	1-%BASEMED	#PLANTS	Cost
	Small	0	0.00000	43%	\$560.32	100.00%	0	\$0
SECTOR 14. IRON AND STEEL MILLS								
Alloy Stainless Steel	Large	31	0.00675	43%	\$560.32	50.00%	39	\$143,174
	Small	1	0.00032	43%	\$560.32	70.00%	12	\$3,062
Carbon Steel	Large	1	0.00016	43%	\$560.32	50.00%	116	\$10,227
	Small	1	0.00032	43%	\$560.32	70.00%	37	\$9,005
SECTOR 14.B FORGING INDUSTRY								
Reshaping	Large	0	0.00064	43%	\$560.32	50.00%	33	\$3
	Small	0	0.00016	43%	\$560.32	70.00%	31	\$1
SECTOR 15. IRON AND STEEL FOUNDRIES								
ALL	Large	16	0.00000	43%	\$560.32	20.00%	152	\$117,309
	Small	4	0.00000	43%	\$560.32	90.00%	111	\$95,980
SECTOR 17. CHROMIUM DYE PRODUCERS								
ALL	Large	0	0.00000	43%	\$560.32	0.00%	2	\$0
	Small	0	0.00000	43%	\$560.32	0.00%	1	\$0
SECTOR 18. CHROMIUM SULFATE PRODUCERS								
ALL	Large	0	0.00000	43%	\$560.32	0.00%	0	\$0
	Small	1	0.00000	43%	\$560.32	0.00%	5	\$0
SECTOR 19. CHEMICAL DISTRIBUTORS								
ALL	Large	0	0.00000	43%	\$560.32	100.00%	212	\$0
	Small	0	0.00000	43%	\$560.32	100.00%	1,600	\$0
SECTOR 20. TEXTILE DYEING								
ALL	Large	0	0.00000	43%	\$560.32	20.00%	307	\$0
	Small	0	0.00000	43%	\$560.32	90.00%	623	\$0
SECTOR 21. COLORED GLASS PRODUCERS								
ALL	Large	1	0.00000	43%	\$560.32	20.00%	8	\$481
	Small	0	0.00000	43%	\$560.32	90.00%	24	\$0
Fiber, Flat and Container Glass	Large	12	0.00000	43%	\$560.32	20.00%	111	\$61,985
	Small	3	0.00000	43%	\$560.32	90.00%	6	\$3,604
SECTOR 22. PRINTING								
ALL	Large	0	0.00000	43%	\$560.32	20.00%	78	\$0
	Small	0	0.00000	43%	\$560.32	90.00%	312	\$0
SECTOR 24. CHROMIUM CATALYST USERS								
Catalyst Users	Large	0	0.00000	43%	\$560.32	20.00%	193	\$0
	Small	0	0.00000	43%	\$560.32	20.00%	0	\$0
Chromium Catalyst Service Companies	Large	6	0.00000	43%	\$560.32	20.00%	25	\$7,058

Table 29

Variables	Size	LIMEPAL	MEDEXAMADDERM	TURNOVER	COMPFULLCOST	1-%BASEMED	#PLANTS	Cost
Companies	Small	4	0.00000	43%	\$560.32	20.00%	5	\$807
SECTOR 25. REFRACTORY BRICK PRODUCERS								
ALL	Large	0	0.00000	43%	\$560.32	20.00%	5	\$0
	Small	0	0.00000	43%	\$560.32	90.00%	0	\$0
SECTOR 26. WOODWORKING								
General Industry	Large	0	0.00000	43%	\$560.32	75.00%	143	\$0
	Small	0	0.00000	43%	\$560.32	100.00%	76	\$0
Maritime	Large	0	0.00000	43%	\$560.32	75.00%	36	\$0
	Small	0	0.00000	43%	\$560.32	100.00%	32	\$0
Construction	Large	1	0.00000	43%	\$560.32	50.00%	1,232	\$122,854
	Small	1	0.00000	43%	\$560.32	50.00%	4,932	\$491,747
Government	State	1	0.00000	43%	\$560.32	50.00%	17	\$1,351
	Local	1	0.00000	43%	\$560.32	50.00%	62	\$4,884
SECTOR 27. SOLID WASTER INCINERATION								
ALL	Large	0	0.00000	43%	\$560.32	50.00%	39	\$0
	Small	0	0.00000	43%	\$560.32	70.00%	47	\$0
Government	State	1	0.00000	43%	\$560.32	50.00%	0	\$0
	Local	0	0.00000	43%	\$560.32	70.00%	24	\$0
SECTOR 30. SUPERALLOY PRODUCERS AND USERS								
ALL	Large	2	2.00000	43%	\$560.32	50.00%	18	\$8,450
	Small	0	0.00000	43%	\$560.32	70.00%	0	\$0
SECTOR 31. CONSTRUCTION								
Industrial Rehabilitation & Maintenance	Large	0	0.00000	43%	\$560.32	50.00%	54	\$0
	Small	0	0.00000	43%	\$560.32	50.00%	247	\$0
	State Gov't	0	0.00000	43%	\$560.32	50.00%	16	\$0
	Local Gov't	0	0.00000	43%	\$560.32	50.00%	93	\$0
Hazardous Waste Site Work	Large	0	0.00000	43%	\$560.32	50.00%	43	\$0
	Small	0	0.00000	43%	\$560.32	50.00%	180	\$0
	State Gov't	0	0.00000	43%	\$560.32	50.00%	1	\$0
	Local Gov't	0	0.00000	43%	\$560.32	50.00%	252	\$0
Refractory Brick Restoration	Large	1	0.00000	43%	\$560.32	50.00%	47	\$6,311
	Small	1	0.00000	43%	\$560.32	50.00%	185	\$24,957
TOTAL							73,274	\$7,364,507

Table 30

TABLE 30: Medical Examination at the Termination of Employment (§§ 1910.1026(k)(2)(vi) and (k)(3)(i)-(k)(3)(iii); 1915.1026(i)(2)(vi) and (i)(3)(i)-(i)(3)(iii); and 1926.1126(i)(2)(vi) and (i)(3)(i)-(i)(3)(iii))**Employee Time and Cost to Complete the Medical Examination at the Termination of Employment**

Employees receive a comprehensive medical examination at the termination of employment. For employers who are providing annual medical testing (%BASEMED) the additional employee time will be 3 hours (COMPARTTIME). For employers who are not providing annual medical testing (1-%BASEMED) the time for a full comprehensive examination is 4 hours (COMPFULLTIME). The employee turnover rate is divided by two, because medical examinations must be provided at the termination of employment "... unless the last examination ... was less than six months prior to the date of determination. It is estimated that half of the employee turnover occurs at the beginning of the year and the other half occurs at the end of the year. Therefore, based on this estimation at any time during the year, it has been greater than six months since their last medical examination for half of the employees that are leaving, and therefore, these employees require a medical examination.

$$\text{BURDEN HOURS} = (\text{LIMEMPAL} + \text{MEDEXAMADDERM}) * (\text{TURNOVER}/2) * ((\text{COMPARTTIME} * \% \text{BASEMED}) + (\text{COMPFULLTIME} * (1 - \% \text{BASEMED}))) * \# \text{PLANTS}$$

$$\text{COST} = \text{BURDEN HOURS} \times \text{NONSUPEWAGE}$$

Variables:

- LIMEMPAL** = Number of employees requiring a limited medical exam b/c at or > AL after the implementation of engineering controls.
MEDEXAMADDERM = Number of employees at or above the AL requiring a limited medical exam b/c of dermal "signs and symptoms" after the implementation of engineering controls.
COMPARTTIME = The time an employee takes for a comprehensive exam when employed by employers already providing annual medical testing in the baseline.
%BASEMED = Percentage of employers who are providing annual medical examinations
COMPFULLTIME = The time an employee takes for a comprehensive exam when employed by employers who were not providing any annual medical testing in the baseline.
***1-%BASEMED** = Percentage of plants that are not providing annual medical examinations.
*** #PLANTS** = Number of Plants
NONSUPEWAGE = Non-supervisory Wage Rate

VARIABLES	SIZE	LIMEMPAL	MEDEXAMADDERM	TURNOVER	TURNOVER / 2	COMPARTTIME	%BASEMED	COMPFULLTIME	1- %BASEMED	#PLANTS	RESPONDENTS	RESPONSES	HOURLY PER RESPONSE (FOR ITEM 12 TABLE)	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING																
All	Large	3	0.000000	43%	22%	3	100.00%	4	0.00%	1,752	1,130	1,130	3	3,391	\$32.54	\$ 110,343
	Small	0	0.000000	43%	22%	3	100.00%	4	0.00%	3,297	-	-	3	-	\$32.54	\$ -
SECTOR 2A. WELDING																
General Industry	Large	0	0.000000	43%	22%	3	5.00%	4	95.00%	8,171	-	-	4	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	0.00%	4	100.00%	9,155	-	-	4	-	\$32.54	\$ -
Maritime	Large	14	3.014286	43%	22%	3	5.00%	4	95.00%	197	723	723	4	2,857	\$32.54	\$ 92,961
	Small	1	0.000000	43%	22%	3	0.00%	4	100.00%	112	24	24	4	96	\$32.54	\$ 3,136
Construction	Large	27	3.014286	43%	22%	3	5.00%	4	95.00%	278	1,804	1,804	4	7,125	\$32.54	\$ 231,845
	Small	3	0.000000	43%	22%	3	0.00%	4	100.00%	2,231	1,446	1,446	4	5,782	\$32.54	\$ 188,163
Government	State	0	0.000000	43%	22%	3	5.00%	4	95.00%	26	-	-	4	-	\$32.54	\$ -
	Local	0	0.000000	43%	22%	3	0.00%	4	100.00%	819	-	-	4	-	\$32.54	\$ -
SECTOR 2B. MILD STEEL WELDING																
General Industry	Large	0	0.000000	43%	22%	3	5.00%	4	95.00%	10,955	-	-	4	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	0.00%	4	100.00%	11,152	-	-	4	-	\$32.54	\$ -
Maritime	Large	0	0.000000	43%	22%	3	5.00%	4	95.00%	425	-	-	4	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	0.00%	4	100.00%	241	-	-	4	-	\$32.54	\$ -
Construction	Large	10	0.000000	43%	22%	3	5.00%	4	95.00%	418	903	903	4	3,567	\$32.54	\$ 116,062
	Small	1	0.000000	43%	22%	3	0.00%	4	100.00%	3,158	682	682	4	2,729	\$32.54	\$ 88,798
SECTOR 3. PAINTING																
GENERAL INDUSTRY																
Aerospace	Large	46	0.000000	43%	22%	3	80.00%	4	20.00%	50	489	489	3	1,564	\$32.54	\$ 50,899
	Small	0	0.000000	43%	22%	3	50.00%	4	50.00%	62	-	-	4	-	\$32.54	\$ -
Auto Body	Large	1	0.000000	43%	22%	3	80.00%	4	20.00%	330	65	65	3	209	\$32.54	\$ 6,786
	Small	0	0.000000	43%	22%	3	50.00%	4	50.00%	1,454	-	-	4	-	\$32.54	\$ -
Coil Coating	Large	2	0.000000	43%	22%	3	80.00%	4	20.00%	101	40	40	3	127	\$32.54	\$ 4,147
	Small	1	0.000000	43%	22%	3	50.00%	4	50.00%	18	4	4	4	13	\$32.54	\$ 412
Maritime	Large	2	0.000000	43%	22%	3	100.00%	4	0.00%	274	101	101	3	303	\$32.54	\$ 9,848
	Small	1	0.000000	43%	22%	3	50.00%	4	50.00%	474	87	87	4	305	\$32.54	\$ 9,932
Construction	Large	2	0.000000	43%	22%	3	100.00%	4	0.00%	789	381	381	3	1,142	\$32.54	\$ 37,162
	Small	0	0.000000	43%	22%	3	100.00%	4	0.00%	4,197	-	-	3	-	\$32.54	\$ -
Government	State	0	0.000000	43%	22%	3	100.00%	4	0.00%	17	-	-	3	-	\$32.54	\$ -
	Local	9	0.000000	43%	22%	3	100.00%	4	0.00%	945	1,868	1,868	3	5,605	\$32.54	\$ 182,383
SECTOR 4. PRODUCERS OF CHROMATES																
All	Large	7	0.000000	43%	22%	3	50.00%	4	50.00%	2	3	3	4	10	\$32.54	\$ 319
	Small	0	0.000000	43%	22%	3	0.00%	4	100.00%	0	-	-	4	-	\$32.54	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES																
All	Large	7	0.000000	43%	22%	3	100.00%	4	0.00%	2	3	3	3	8	\$32.54	\$ 245
	Small	1	0.000000	43%	22%	3	100.00%	4	0.00%	1	0.2	0.2	3	1	\$32.54	\$ 17
SECTOR 6. CCA PRODUCERS																
All	Large	2	0.000000	43%	22%	3	100.00%	4	0.00%	3	1	1	3	3	\$32.54	\$ 109
	Small	0	0.000000	43%	22%	3	0.00%	4	100.00%	0	-	-	4	-	\$32.54	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS																

Table 30

VARIABLES	SIZE	LIVEMPAL	MECHANMADDERM	TURNOVER	TURNOVER / 2	COMPARTIME	%BASEMED	COMPFULLTIME	1- %BASEMED	#PLANTS	RESPONDENTS	RESPONSES	HOURLY PER RESPONSE (FOR ITEM 12 TABLE)	BURDEN HOURS	NONSUPERWAGE	ITEM 12 COST
All	Large	11	0.000000	43%	22%	3	100.00%	4	0.00%	5	11	11	3	33	\$32.54	\$ 1,075
	Small	0	0.000000	43%	22%	3	100.00%	4	0.00%	0	-	-	3	-	\$32.54	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS																
All	Large	1	0.003380	43%	22%	3	100.00%	4	0.00%	78	17	17	3	51	\$32.54	\$ 1,647
	Small	0	0.000000	43%	22%	3	100.00%	4	0.00%	123	-	-	3	-	\$32.54	\$ -
SECTOR 9. PRINTING INK PRODUCERS																
All	Large	0	0.000000	43%	22%	3	80.00%	4	20.00%	2	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	10.00%	4	90.00%	7	-	-	4	-	\$32.54	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS																
All	Large	0	0.000000	43%	22%	3	100.00%	4	0.00%	79	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	100.00%	4	0.00%	39	-	-	3	-	\$32.54	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS																
All	Large	3	0.000000	43%	22%	3	50.00%	4	50.00%	6	4	4	4	13	\$32.54	\$ 435
	Small	1	0.000000	43%	22%	3	30.00%	4	70.00%	4	1	1	4	3	\$32.54	\$ 102
SECTOR 13. CHROMIUM METAL PRODUCERS																
All	Large	8	0.000000	43%	22%	3	100.00%	4	0.00%	1	2	2	3	5	\$32.54	\$ 174
	Small	0	0.000000	43%	22%	3	0.00%	4	100.00%	0	-	-	4	-	\$32.54	\$ -
SECTOR 14. IRON AND STEEL MILLS																
General Industry	Large	31	0.006751	43%	22%	3	50.00%	4	50.00%	39	256	256	4	894	\$32.54	\$ 29,103
	Small	1	0.000321	43%	22%	3	30.00%	4	70.00%	12	4	4	4	14	\$32.54	\$ 470
Carbon Steel	Large	1	0.000161	43%	22%	3	50.00%	4	50.00%	116	18	18	4	64	\$32.54	\$ 2,079
	Small	1	0.000321	43%	22%	3	30.00%	4	70.00%	37	11	11	4	42	\$32.54	\$ 1,382
SECTOR 14.B FORGING INDUSTRY																
Reshaping	Large	0	0.000643	43%	22%	3	50.00%	4	50.00%	33	0.005	0.005	4	0.02	\$32.54	\$ 1
	Small	0	0.000161	43%	22%	3	30.00%	4	70.00%	31	0.001	0.001	4	0.004	\$32.54	\$ 0.1
SECTOR 15. IRON AND STEEL FOUNDRIES																
All	Large	16	0.000000	43%	22%	3	80.00%	4	20.00%	152	523	523	3	1,675	\$32.54	\$ 54,503
	Small	4	0.000000	43%	22%	3	10.00%	4	90.00%	111	95	95	4	371	\$32.54	\$ 12,077
SECTOR 17. CHROMIUM DYE PRODUCERS																
All	Large	0	0.000000	43%	22%	3	100.00%	4	0.00%	2	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	100.00%	4	0.00%	1	-	-	3	-	\$32.54	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS																
All	Large	0	0.000000	43%	22%	3	100.00%	4	0.00%	0	-	-	3	-	\$32.54	\$ -
	Small	1	0.000000	43%	22%	3	100.00%	4	0.00%	5	1	1	3	3	\$32.54	\$ 98
SECTOR 19. CHEMICAL DISTRIBUTORS																
ALL	Large	0	0.000000	43%	22%	3	0.00%	4	100.00%	212	-	-	4	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	0.00%	4	100.00%	1,600	-	-	4	-	\$32.54	\$ -
SECTOR 20. TEXTILE DYEING																
All	Large	0	0.000000	43%	22%	3	80.00%	4	20.00%	307	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	10.00%	4	90.00%	623	-	-	4	-	\$32.54	\$ -
SECTOR 21. COLORED GLASS PRODUCERS																
General Industry	Large	1	0.000000	43%	22%	3	80.00%	4	20.00%	8	2	2	3	7	\$32.54	\$ 223
	Small	0	0.000000	43%	22%	3	10.00%	4	90.00%	24	-	-	4	-	\$32.54	\$ -
Fiber, Flat and Container Glass	Large	12	0.000000	43%	22%	3	80.00%	4	20.00%	111	277	277	3	885	\$32.54	\$ 28,799
	Small	3	0.000000	43%	22%	3	10.00%	4	90.00%	6	4	4	4	14	\$32.54	\$ 453
SECTOR 22. PRINTING																
All	Large	0	0.000000	43%	22%	3	80.00%	4	20.00%	78	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	10.00%	4	90.00%	312	-	-	4	-	\$32.54	\$ -
SECTOR 24. CHROMIUM CATALYST USERS																
General Industry	Large	0	0.000000	43%	22%	3	80.00%	4	20.00%	193	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	80.00%	4	20.00%	0	-	-	3	-	\$32.54	\$ -
Chromium Service Companies	Large	6	0.000000	43%	22%	3	80.00%	4	20.00%	25	31	31	3	101	\$32.54	\$ 3,279
	Small	4	0.000000	43%	22%	3	30.00%	4	70.00%	5	4	4	4	13	\$32.54	\$ 433
SECTOR 25. REFRACTORY BRICK PRODUCERS																
All	Large	0	0.000000	43%	22%	3	80.00%	4	20.00%	5	-	-	3	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	10.00%	4	90.00%	0	-	-	4	-	\$32.54	\$ -
SECTOR 26. WOODWORKING																

Table 30

VARIABLES	SIZE	LIVEMPAL	MEDEXAMADDERM	TURNOVER	TURNOVER / 2	COMPARTIME	%BASEMED	COMPFULLTIME	1- %BASEMED	#PLANTS	RESPONDENTS	RESPONSES	HOUR PER RESPONSE (FOR ITEM 12 TABLE)	BURDEN HOURS	NONSUPEWAGE	ITEM 12 COST
General Industry	Large	0	0.000000	43%	22%	3	25.00%	4	75.00%	143	-	-	4	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	0.00%	4	100.00%	76	-	-	4	-	\$32.54	\$ -
Maritime	Large	0	0.000000	43%	22%	3	25.00%	4	75.00%	36	-	-	4	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	0.00%	4	100.00%	32	-	-	4	-	\$32.54	\$ -
Construction	Large	1	0.000000	43%	22%	3	50.00%	4	50.00%	1,232	219	219	4	767	\$32.54	\$ 24,972
	Small	1	0.000000	43%	22%	3	50.00%	4	50.00%	4,932	878	878	4	3,072	\$32.54	\$ 99,956
Government	State	1	0.000000	43%	22%	3	50.00%	4	50.00%	17	2	2	4	8	\$32.54	\$ 275
	Local	1	0.000000	43%	22%	3	50.00%	4	50.00%	62	9	9	4	31	\$32.54	\$ 993
SECTOR 27. SOLID WASTER INCINERATION																
All	Large	0	0.000000	43%	22%	3	50.00%	4	50.00%	39	-	-	4	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	30.00%	4	70.00%	47	-	-	4	-	\$32.54	\$ -
Government	State	1	0.000000	43%	22%	3	50.00%	4	50.00%	0	-	-	4	-	\$32.54	\$ -
	Local	0	0.000000	43%	22%	3	30.00%	4	70.00%	24	-	-	4	-	\$32.54	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS																
All	Large	2	2.000000	43%	22%	3	50.00%	4	50.00%	18	15	15	4	53	\$32.54	\$ 1,718
	Small	0	0.000000	43%	22%	3	30.00%	4	70.00%	0	-	-	4	-	\$32.54	\$ -
SECTOR 31. CONSTRUCTION																
Industrial Rehabilitation & Maintenance	Large	0	0.000000	43%	22%	3	50.00%	4	50.00%	54	-	-	4	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	50.00%	4	50.00%	247	-	-	4	-	\$32.54	\$ -
	State Gov't	0	0.000000	43%	22%	3	50.00%	4	50.00%	16	-	-	4	-	\$32.54	\$ -
	Local Gov't	0	0.000000	43%	22%	3	50.00%	4	50.00%	93	-	-	4	-	\$32.54	\$ -
Hazardous Waste Site Work	Large	0	0.000000	43%	22%	3	50.00%	4	50.00%	43	-	-	4	-	\$32.54	\$ -
	Small	0	0.000000	43%	22%	3	50.00%	4	50.00%	180	-	-	4	-	\$32.54	\$ -
	State Gov't	0	0.000000	43%	22%	3	50.00%	4	50.00%	1	-	-	4	-	\$32.54	\$ -
	Local Gov't	0	0.000000	43%	22%	3	50.00%	4	50.00%	252	-	-	4	-	\$32.54	\$ -
Refractory Brick Restoration	Large	1	0.000000	43%	22%	3	50.00%	4	50.00%	47	11	11	4	39	\$32.54	\$ 1,283
	Small	1	0.000000	43%	22%	3	50.00%	4	50.00%	185	45	45	4	156	\$32.54	\$ 5,073
Average/Total								4		73,274	12,192	12,192	4	48,768	\$32.54	\$ 1,586,911

Table 31

Medical Examination at the Termination of Employment (§§ 1910.1026(k)(2)(vi) and (k)(3)(i)-(k)(3)(iii); 1915.1026(i)(2)(vi) and (i)(3)(i)-(i)(3)(iii); and 1926.1126(i)(2)(vi) and (i)(3)(i)-(i)(3)(iii)) Contract Cost for a PLHCP to Conduct the Medical Examination at the Termination of Employment
 Employees receive a comprehensive medical examination at the termination of employment. For employers who are providing annual medical testing (%BASEMED) the additional cost will be \$227.00 (COMPARTCOST). For employers who are not providing annual medical testing (1-%BASEMED) the cost for a full comprehensive examination will be \$454.00 (COMPFULLCOST). The employee turnover rate is divided by two, because medical examinations must be provided at the termination of employment "... unless the last examination ... was less than six months prior to the date of determination. It is estimated that half of the employee turnover occurs at the beginning of the year and the other half occurs at the end of the year. Therefore, based on this estimation at any time during the year, it has been greater than six months since their last medical examination for half of the employees that are leaving, and therefore, these employees require a medical examination.

$$\text{COST} = (\text{LIMEMPAL} + \text{MEDEXAMADDERM}) * (\text{TURNOVER} / 2) * ((\text{COMPARTCOST} * \% \text{BASEMED}) + (\text{COMPFULLCOST} * (1 - \% \text{BASEMED}))) * \# \text{PLANTS}$$

Variables:

LIMEMPAL = Number of employees requiring a limited medical exam b/c at or > AL after the implementation of engineering c

MEDEXAMADDERM = Number of employees at or above the AL requiring a limited medical exam b/c of dermal "signs and symptoms" after the implementation of engineering controls.

TURNOVER/2 = Represents the frequency of termination exams.

COMPARTCOST = The cost of a comprehensive exam for those employers already providing annual medical testing in the baseline

%BASEMED = Percentage of employers who are providing annual medical examinations

COMPFULLCOST = The cost of a comprehensive exam for those employers who were not providing any annual medical testing in the

1-%BASEMED = Percentage of plants that are not providing annual medical examinations.

#PLANTS = Number of Plants

0										
Variables	Size	LIMEMPAL	MEDEXAMADDERM	TURNOVER	TURNOVER / 2	COMPARTCOST	%BASEMED	COMPFULLCOST	1 - %BASEMED	#PLANTS
SECTOR 1. ELECTROPLATING										
All	Large	3	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	1,752
	Small	0	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	3,297
SECTOR 2A. WELDING										
General Industry	Large	0	0.000000	43%	22%	\$280	5.00%	\$559	95.00%	8,171
	Small	0	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	9,155
Maritime	Large	14	3.014286	43%	22%	\$280	5.00%	\$559	95.00%	197
	Small	1	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	112
Construction	Large	27	3.014286	43%	22%	\$280	5.00%	\$559	95.00%	278
	Small	3	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	2,231
Government	State	0	0.000000	43%	22%	\$280	5.00%	\$559	95.00%	26
	Local	0	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	819
SECTOR 2B. MILD STEEL WELDING										
General Industry	Large	0	0.000000	43%	22%	\$280	5.00%	\$559	95.00%	10,955
	Small	0	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	11,152
Maritime	Large	0	0.000000	43%	22%	\$280	5.00%	\$559	95.00%	425
	Small	0	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	241
Construction	Large	10	0.000000	43%	22%	\$280	5.00%	\$559	95.00%	418
	Small	1	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	3,158
SECTOR 3. PAINTING										
GENERAL INDUSTRY										
AEROSPACE	Large	46	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	50
	Small	0	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	62
	Large	1	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	330

Table 31

Variables	Size	LIMEPAL	MEDEXAMADDERM	TURNOVER	TURNOVER / 2	COMPARTCOST	%BASEMED	COMPFULLCOST	1 - %BASEMED	#PLANTS
Auto Body	Small	0	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	1,454
Coil Coating	Large	2	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	101
	Small	1	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	18
Maritime	Large	2	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	274
	Small	1	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	474
Construction	Large	2	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	789
	Small	0	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	4,197
Government	State	0	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	17
	Local	9	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	945
SECTOR 4. PRODUCERS OF CHROMATES										
ALL	Large	7	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	2
	Small	0	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	0
SECTOR 5. CHROMATE PIGMENT PROCEDURES										
ALL	Large	7	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	2
	Small	1	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	1
SECTOR 6. CCA PRODUCERS										
ALL	Large	2	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	3
	Small	0	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	0
SECTOR 7. CHROMIUM CATALYST PRODUCERS										
ALL	Large	11	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	5
	Small	0	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	0
SECTOR 8. PAINT AND COATING PRODUCERS										
ALL	Large	1	0.003380	43%	22%	\$280	100.00%	\$559	0.00%	78
	Small	0	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	123
SECTOR 9. PRINTING INK PRODUCERS										
ALL	Large	0	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	2
	Small	0	0.000000	43%	22%	\$280	10.00%	\$559	90.00%	7
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS										
ALL	Large	0	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	79
	Small	0	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	39
SECTOR 11. PLATING MIXTURE PRODUCERS										
ALL	Large	3	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	6
	Small	1	0.000000	43%	22%	\$280	30.00%	\$559	70.00%	4
SECTOR 13. CHROMIUM METAL PRODUCERS										
ALL	Large	8	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	1
	Small	0	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	0
SECTOR 14. IRON AND STEEL MILLS										
General Industry	Large	31	0.006751	43%	22%	\$280	50.00%	\$559	50.00%	39
	Small	1	0.000321	43%	22%	\$280	30.00%	\$559	70.00%	12

Table 31

Variables	Size	LIME/PAL	MEDEXAMADDERM	TURN OVER	TURN OVER / 2	COMP PART COST	%BASEMED	COMP FULL COST	1 - %BASEMED	#PLANTS
Carbon Steel	Large	1	0.000161	43%	22%	\$280	50.00%	\$559	50.00%	116
	Small	1	0.000321	43%	22%	\$280	30.00%	\$559	70.00%	37
SECTOR 14.B FORGING INDUSTRY										
Reshaping	Large	0	0.000643	43%	22%	\$280	50.00%	\$559	50.00%	33
	Small	0	0.000161	43%	22%	\$280	30.00%	\$559	70.00%	31
SECTOR 15. IRON AND STEEL FOUNDRIES										
ALL	Large	16	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	152
	Small	4	0.000000	43%	22%	\$280	10.00%	\$559	90.00%	111
SECTOR 17. CHROMIUM DYE PRODUCERS										
ALL	Large	0	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	2
	Small	0	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	1
SECTOR 18. CHROMIUM SULFATE PRODUCERS										
ALL	Large	0	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	0
	Small	1	0.000000	43%	22%	\$280	100.00%	\$559	0.00%	5
SECTOR 19. CHEMICAL DISTRIBUTORS										
ALL	Large	0	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	212
	Small	0	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	1,600
SECTOR 20. TEXTILE DYEING										
ALL	Large	0	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	307
	Small	0	0.000000	43%	22%	\$280	10.00%	\$559	90.00%	623
SECTOR 21. COLORED GLASS PRODUCERS										
General Industry	Large	1	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	8
	Small	0	0.000000	43%	22%	\$280	10.00%	\$559	90.00%	24
Fiber, Flat and Container Glass	Large	12	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	111
	Small	3	0.000000	43%	22%	\$280	10.00%	\$559	90.00%	6
SECTOR 22. PRINTING										
ALL	Large	0	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	78
	Small	0	0.000000	43%	22%	\$280	10.00%	\$559	90.00%	312
SECTOR 24. CHROMIUM CATALYST USERS										
General Industry	Large	0	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	193
	Small	0	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	0
Chromium Service Companies	Large	6	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	25
	Small	4	0.000000	43%	22%	\$280	30.00%	\$559	70.00%	5
SECTOR 25. REFRACTORY BRICK PRODUCERS										
ALL	Large	0	0.000000	43%	22%	\$280	80.00%	\$559	20.00%	5
	Small	0	0.000000	43%	22%	\$280	10.00%	\$559	90.00%	0
SECTOR 26. WOODWORKING										
General Industry	Large	0	0.000000	43%	22%	\$280	25.00%	\$559	75.00%	143
	Small	0	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	76
	Large	0	0.000000	43%	22%	\$280	25.00%	\$559	75.00%	36

Table 31

Variables	Size	LIMEPAL	MEDEXAMADDERM	TURNOVER	TURNOVER / 2	COMPARTCOST	%BASEMED	COMPFULLCOST	1 - %BASEMED	#PLANTS
Maritime	Small	0	0.000000	43%	22%	\$280	0.00%	\$559	100.00%	32
Construction	Large	1	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	1,232
	Small	1	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	4,932
Government	State	1	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	17
	Local	1	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	62
SECTOR 27. SOLID WASTER INCINERATION										
ALL	Large	0	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	39
	Small	0	0.000000	43%	22%	\$280	30.00%	\$559	70.00%	47
Government	State	1	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	0
	Local	0	0.000000	43%	22%	\$280	30.00%	\$559	70.00%	24
SECTOR 30. SUPERALLOY PRODUCERS AND USERS										
ALL	Large	2	2.000000	43%	22%	\$280	50.00%	\$559	50.00%	18
	Small	0	0.000000	43%	22%	\$280	30.00%	\$559	70.00%	0
SECTOR 31. CONSTRUCTION										
Industrial Rehabilitation & Maintenance	Large	0	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	54
	Small	0	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	247
	State Gov't	0	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	16
	Local Gov't	0	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	93
Hazardous Waste Site Work	Large	0	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	43
	Small	0	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	180
	State Gov't	0	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	1
	Local Gov't	0	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	252
Refractory Brick Restoration	Large	1	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	47
	Small	1	0.000000	43%	22%	\$280	50.00%	\$559	50.00%	185
Total										73,274

Table 32

TABLE 32: Information Provided to the PLHCP (§§ 1910.1026(k)(4), 1915.1026(i)(4), and 1926.1126(i)(4)); Clerical Time and Cost to Provide Information to the PLHCP

This table estimates the burden hours and costs for employers to update required information in worker records and provide the information to the PLHCP. OSHA assumes that it will take 5 minutes for a clerical worker to update the worker record and provide this information. The Agency reduced the time for this requirement from 1 hour to 5 minutes because, after the first year of medical surveillance, employers will not need to establish files.

Variables:

BURDEN HOURS = POTEXEMP * MEDRECORD * PLANTS

COST = BURDEN HOURS * CLWAGE

POTEXEMP = Total number of potentially exposed employees at or above the AL and workers with "signs and symptoms" before the implementation of engineering controls.

MEDRECORD = Clerical time per employee, in hours, to maintain detailed medical records and provide to the PLHCP (5 mins)

CLWAGE = Clerical wage. \$/hr.

#PLANTS = Number of plants represented by the model

VARIABLES	SIZE	POTEXEMP	#PLANTS	RESPONDENTS	RESPONSES	MEDRECORD	BURDEN HOURS	CLWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING									
All	Large	5	1,752	8,762	8,762	0.08	730	\$26.65	\$ 19,457
	Small	1	3,297	3,297	3,297	0.08	275	\$26.65	\$ 7,321
SECTOR 2A. WELDING									
General Industry	Large	2	8,171	16,419	16,419	0.08	1,368	\$26.65	\$ 36,461
	Small	0	9,155	0	-	0.08	-	\$26.65	\$ -
Maritime	Large	19	197	3,760	3,760	0.08	313	\$26.65	\$ 8,348
	Small	1	112	112	112	0.08	9	\$26.65	\$ 249
Construction	Large	51	278	14,262	14,262	0.08	1,188	\$26.65	\$ 31,670
	Small	5	2,231	11,206	11,206	0.08	934	\$26.65	\$ 24,884
Government	State	2	26	52	52	0.08	4	\$26.65	\$ 117
	Local	0	819	0	-	0.08	-	\$26.65	\$ -
SECTOR 2B. MILD STEEL WELDING									
General Industry	Large	1	10,955	11,007	11,007	0.08	917	\$26.65	\$ 24,442
	Small	0	11,152	0	-	0.08	-	\$26.65	\$ -
Maritime	Large	0	425	0	-	0.08	-	\$26.65	\$ -
	Small	1	241	242	242	0.08	20	\$26.65	\$ 538
Construction	Large	19	418	7,979	7,979	0.08	665	\$26.65	\$ 17,719
	Small	2	3,158	6,346	6,346	0.08	529	\$26.65	\$ 14,092
SECTOR 3. PAINTING									
GENERAL INDUSTRY									
Aerospace	Large	47	50	2,319	2,319	0.08	193	\$26.65	\$ 5,149
	Small	1	62	57	57	0.08	5	\$26.65	\$ 127
Auto Body	Large	12	330	3,941	3,941	0.08	328	\$26.65	\$ 8,751
	Small	1	1,454	1,335	1,335	0.08	111	\$26.65	\$ 2,964
Coil Coating	Large	2	101	185	185	0.08	15	\$26.65	\$ 411
	Small	1	18	17	17	0.08	1	\$26.65	\$ 37
Maritime	Large	3	274	704	704	0.08	59	\$26.65	\$ 1,563
	Small	1	474	406	406	0.08	34	\$26.65	\$ 901
	Large	2	789	1,771	1,771	0.08	148	\$26.65	\$ 3,932

Table 32

VARIABLES	SIZE	POTEXEMP	#PLANTS	RESPONDENTS	RESPONSES	MEDRECORD	BURDEN HOURS	CLWAGE	ITEM 12 COST
Construction	Small	1	4,197	3,138	3,138	0.08	261	\$26.65	\$ 6,967
Government	State	9	17	157	157	0.08	13	\$26.65	\$ 349
	Local	1	945	621	621	0.08	52	\$26.65	\$ 1,378
SECTOR 4. PRODUCERS OF CHROMATES									
All	Large	7	2	13	13	0.08	1	\$26.65	\$ 29
	Small	0	0	0	-	0.08	-	\$26.65	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES									
All	Large	20	2	33	33	0.08	3	\$26.65	\$ 74
	Small	2	1	2	2	0.08	0.1	\$26.65	\$ 4
SECTOR 6. CCA PRODUCERS									
All	Large	3	3	8	8	0.08	1	\$26.65	\$ 17
	Small	0	0	0	-	0.08	-	\$26.65	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS									
All	Large	24	5	112	112	0.08	9	\$26.65	\$ 248
	Small	0	0	0	-	0.08	-	\$26.65	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS									
All	Large	5	78	391	391	0.08	33	\$26.65	\$ 868
	Small	2	123	246	246	0.08	20	\$26.65	\$ 546
SECTOR 9. PRINTING INK PRODUCERS									
All	Large	0	2	0	-	0.08	-	\$26.65	\$ -
	Small	0	7	0	-	0.08	-	\$26.65	\$ -
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS									
All	Large	0	79	0	-	0.08	-	\$26.65	\$ -
	Small	0	39	0	-	0.08	-	\$26.65	\$ -
SECTOR 11. PLATING MIXTURE PRODUCERS									
All	Large	3	6	18	18	0.08	1	\$26.65	\$ 39
	Small	1	4	4	4	0.08	0.3	\$26.65	\$ 9
SECTOR 13. CHROMIUM METAL PRODUCERS									
All	Large	14	1	15	15	0.08	1	\$26.65	\$ 32
	Small	0	0	0	-	0.08	-	\$26.65	\$ -
SECTOR 14. IRON AND STEEL MILLS									
All	Large	42	39	1,613	1,613	0.08	134	\$26.65	\$ 3,581
	Small	1	12	18	18	0.08	2	\$26.65	\$ 40
Carbon Steel	Large	10	116	1,188	1,188	0.08	99	\$26.65	\$ 2,639
	Small	1	37	53	53	0.08	4	\$26.65	\$ 119
SECTOR 14.B FORGING INDUSTRY									
All	Large	3	33	100	100	0.08	8	\$26.65	\$ 221
	Small	0	31	0	-	0.08	-	\$26.65	\$ -
SECTOR 15. IRON AND STEEL FOUNDRIES									
All	Large	23	152	3,499	3,499	0.08	292	\$26.65	\$ 7,771
	Small	5	111	553	553	0.08	46	\$26.65	\$ 1,229

Table 32

VARIABLES	SIZE	POTEXEMP	#PLANTS	RESPONDENTS	RESPONSES	MEDRECORD	BURDEN HOURS	CLWAGE	ITEM 12 COST
SECTOR 17. CHROMIUM DYE PRODUCERS									
All	Large	0	2	0	-	0.08	-	\$26.65	\$ -
	Small	0	1	0	-	0.08	-	\$26.65	\$ -
SECTOR 18. CHROMIUM SULFATE PRODUCERS									
All	Large	0	0	0	-	0.08	-	\$26.65	\$ -
	Small	3	5	14	14	0.08	1	\$26.65	\$ 31
SECTOR 19. CHEMICAL DISTRIBUTORS									
All	Large	0	212	0	-	0.08	-	\$26.65	\$ -
	Small	0	1,600	0	-	0.08	-	\$26.65	\$ -
SECTOR 20. TEXTILE DYEING									
All	Large	0	307	0	-	0.08	-	\$26.65	\$ -
	Small	0	623	0	-	0.08	-	\$26.65	\$ -
SECTOR 21. COLORED GLASS PRODUCERS									
All	Large	1	8	10	10	0.08	1	\$26.65	\$ 22
	Small	0	24	0	-	0.08	-	\$26.65	\$ -
Fiber, Flat, and Container Glass	Large	14	111	1,572	1,572	0.08	131	\$26.65	\$ 3,491
	Small	3	6	17	17	0.08	1	\$26.65	\$ 37
SECTOR 22. PRINTING									
All	Large	0	78	0	-	0.08	-	\$26.65	\$ -
	Small	0	312	0	-	0.08	-	\$26.65	\$ -
SECTOR 24. CHROMIUM CATALYST USERS									
All	Large	1	193	227	227	0.08	19	\$26.65	\$ 505
	Small	0	0	0	-	0.08	-	\$26.65	\$ -
Chromium Catalyst Companies	Large	12	25	293	293	0.08	24	\$26.65	\$ 651
	Small	6	5	28	28	0.08	2	\$26.65	\$ 62
SECTOR 25. REFRACTORY BRICK PRODUCERS									
All	Large	0	5	0	-	0.08	-	\$26.65	\$ -
	Small	0	0	0	-	0.08	-	\$26.65	\$ -
SECTOR 26. WOODWORKING									
General Industry	Large	1	143	109	109	0.08	9	\$26.65	\$ 243
	Small	0	76	0	-	0.08	-	\$26.65	\$ -
Maritime	Large	0	36	0	-	0.08	-	\$26.65	\$ -
	Small	0	32	0	-	0.08	-	\$26.65	\$ -
Construction	Large	2	1,232	3,059	3,059	0.08	255	\$26.65	\$ 6,794
	Small	1	4,932	4,082	4,082	0.08	340	\$26.65	\$ 9,064
Government	State	1	17	11	11	0.08	1	\$26.65	\$ 25
	Local	1	62	41	41	0.08	3	\$26.65	\$ 90
SECTOR 27. SOLID WASTE INCINERATION									
All	Large	0	39	0	-	0.08	-	\$26.65	\$ -
	Small	0	47	0	-	0.08	-	\$26.65	\$ -
	State	0	0	0	-	0.08	-	\$26.65	\$ -

Table 32

VARIABLES	SIZE	POTEXEMP	#PLANTS	RESPONDENTS	RESPONSES	MEDRECORD	BURDEN HOURS	CLWAGE	ITEM 12 COST
Government	Local	0	24	0	-	0.08	-	\$26.65	\$ -
SECTOR 30. SUPERALLOY PRODUCERS AND USERS									
All	Large	2	18	35	35	0.08	3	\$26.65	\$ 78
	Small	0	0	0	-	0.08	-	\$26.65	\$ -
SECTOR 31. CONSTRUCTION									
Industrial Rehabilitation & Maintenance	Large	0	54	0	-	0.08	-	\$26.65	\$ -
	Small	0	247	0	-	0.08	-	\$26.65	\$ -
	State Gov't	0	16	0	-	0.08	-	\$26.65	\$ -
	Local Gov't	0	93	0	-	0.08	-	\$26.65	\$ -
Hazardous Waste Site Work	Large	0	43	0	-	0.08	-	\$26.65	\$ -
	Small	0	180	0	-	0.08	-	\$26.65	\$ -
	State Gov't	0	1	0	-	0.08	-	\$26.65	\$ -
	Local Gov't	0	252	0	-	0.08	-	\$26.65	\$ -
Refractory Brick Restoration	Large	11	47	524	524	0.08	44	\$26.65	\$ 1,163
	Small	1	185	207	207	0.08	17	\$26.65	\$ 460
Average/Total			73,274	116,188	116,188	0.08	9,682	\$26.65	\$258,025

Table 33

TABLE 33: Clerical Time and Cost to Provide the PLHCP's Written Medical Opinion to Employee and to Establish and Maintain Record for Air Monitoring Data and Medical Surveillance

The Standard requires that employers maintain exposure and medical surveillance records. As part of the medical record, employers must maintain a copy of the PLHCP's written opinion. OSHA assumes that the 5 minutes for recordkeeping includes the time it takes for employers to provide a copy of the PLHCP's written opinion to the employee.

$$\text{BURDEN HOURS} = \text{RECTIME} * \text{EMPEXP} * \text{\#PLANTS}$$

$$\text{COST} = \text{BURDEN HOURS} * \text{CLWAGE}$$

Variables:

RECTIME = Time, 5 mins per record for exposed workers

EMPEXP = Exposed employees to chromium or employees exposed dermally

\#PLANTS = Number of Plants

CLWAGE = Clerical wage Rate

VARIABLES	SIZE	EMPEXP	\#PLANTS	RESPONDENTS	RESPONSES	RECTIME	HOURS	CLWAGE	ITEM 12 COST
SECTOR 1. ELECTROPLATING									
ALL	Large	13	1,752	22,781	22,781	0.083	1,898	\$26.65	\$ 50,588
	Small	3	3,297	9,891	9,891	0.083	824	\$26.65	\$ 21,964
SECTOR 2A. WELDING									
ALL	Large	3	8,672	26,016	26,016	0.083	2,168	\$26.65	\$ 57,772
	Small	3	12,316	36,949	36,949	0.083	3,079	\$26.65	\$ 82,049
SECTOR 2B. MILD STEEL WELDING									
	Large	4	11,798	47,192	47,192	0.083	3,933	\$26.65	\$ 104,794
	Small	1	14,551	14,551	14,551	0.083	1,213	\$26.65	\$ 32,312
SECTOR 3. PAINTING									
ALL	Large	45	1,562	70,280	70,280	0.083	5,857	\$26.65	\$ 156,063
	Small	2	7,152	14,303	14,303	0.083	1,192	\$26.65	\$ 31,762
SECTOR 4. PRODUCERS OF CHROMATES									
ALL	Large	70	2	130	130	0.083	11	\$26.65	\$ 289
	Small	0	0	-	-	0.083	-	\$26.65	\$ -
SECTOR 5. CHROMATE PIGMENT PROCEDURES									
ALL	Large	20	2	33	33	0.083	3	\$26.65	\$ 74
	Small	2	1	2	2	0.083	0.1	\$26.65	\$ 4
SECTOR 6. CCA PRODUCERS									
ALL	Large	8	3	21	21	0.083	2	\$26.65	\$ 46
	Small	0	0	-	-	0.083	-	\$26.65	\$ -
SECTOR 7. CHROMIUM CATALYST PRODUCERS									
ALL	Large	59	5	275	275	0.083	23	\$26.65	\$ 610
	Small	0	0	-	-	0.083	-	\$26.65	\$ -
SECTOR 8. PAINT AND COATING PRODUCERS									
ALL	Large	17	78	1,330	1,330	0.083	111	\$26.65	\$ 2,953

Table 33

VARIABLES	SIZE	EMPEXP	#PLANTS	RESPONDENTS	RESPONSES	RECTIME	HOURS	CLWAGE	ITEM 12 COST
	Small	7	123	860	860	0.083	72	\$26.65	\$ 1,911
SECTOR 9. PRINTING INK PRODUCERS									
ALL	Large	15	2	33	33	0.083	3	\$26.65	\$ 74
	Small	15	7	111	111	0.083	9	\$26.65	\$ 246
SECTOR 10. PLASTIC COLORANT PRODUCERS AND USERS									
ALL	Large	5	79	396	396	0.083	33	\$26.65	\$ 879
	Small	1	39	39	39	0.083	3	\$26.65	\$ 86
SECTOR 11. PLATING MIXTURE PRODUCERS									
ALL	Large	17	6	101	101	0.083	8	\$26.65	\$ 223
	Small	4	4	16	16	0.083	1	\$26.65	\$ 35
SECTOR 13. CHROMIUM METAL PRODUCERS									
ALL	Large	49	1	51	51	0.083	4	\$26.65	\$ 113
	Small	0	0	-	-	0.083	-	\$26.65	\$ -
SECTOR 14. IRON AND STEEL MILLS									
ALL	Large	48	2,207	105,944	105,944	0.083	8,829	\$26.65	\$ 235,260
	Small	3	25	75	75	0.083	6	\$26.65	\$ 165
SECTOR 15. IRON AND STEEL FOUNDRIES									
ALL	Large	98	152	14,911	14,911	0.083	1,243	\$26.65	\$ 33,111
	Small	98	111	10,844	10,844	0.083	904	\$26.65	\$ 24,081
SECTOR 17. CHROMIUM DYE PRODUCERS									
ALL	Large	27	2	67	67	0.083	6	\$26.65	\$ 150
	Small	6	1	5	5	0.083	0.4	\$26.65	\$ 11
SECTOR 18. CHROMIUM SULFATE PRODUCERS									
ALL	Large	0	0	-	-	0.083	-	\$26.65	\$ -
	Small	2	5	9	9	0.083	1	\$26.65	\$ 21
SECTOR 19. CHEMICAL DISTRIBUTORS									
ALL	Large	0	212	-	-	0.083	-	\$26.65	\$ -
	Small	0	1,600	-	-	0.083	-	\$26.65	\$ -
SECTOR 20. TEXTILE DYEING									
ALL	Large	52	307	15,962	15,962	0.083	1,330	\$26.65	\$ 35,445
	Small	2	623	1,246	1,246	0.083	104	\$26.65	\$ 2,767
SECTOR 21. COLORED GLASS PRODUCERS									
ALL	Large	6	119	712	712	0.083	59	\$26.65	\$ 1,580
	Small	1	31	31	31	0.083	3	\$26.65	\$ 69
SECTOR 22. PRINTING									
ALL	Large	37	78	2,883	2,883	0.083	240	\$26.65	\$ 6,402

Table 33

VARIABLES	SIZE	EMPEXP	#PLANTS	RESPONDENTS	RESPONSES	RECTIME	HOURS	CLWAGE	ITEM 12 COST
	Small	2	312	623	623	0.083	52	\$26.65	\$ 1,384
SECTOR 24. CHROMIUM CATALYST USERS									
ALL	Large	35	193	6,822	6,822	0.083	568	\$26.65	\$ 15,148
	Small	18	0	-	-	0.083	-	\$26.65	\$ -
Catalyst Service Companies	Large	1	25	29	29	0.083	2	\$26.65	\$ 65
	Small	0	5	-	-	0.083	-	\$26.65	\$ -
SECTOR 25. REFRACTORY BRICK PRODUCERS									
ALL	Large	10	5	52	52	0.083	4	\$26.65	\$ 115
	Small	0	0	-	-	0.083	-	\$26.65	\$ -
SECTOR 26. WOODWORKING									
ALL	Large	0	1,428	-	-	0.083	-	\$26.65	\$ -
	Small	0	5,102	-	-	0.083	-	\$26.65	\$ -
SECTOR 27. SOLID WASTER INCINERATION									
ALL	Large	0	39	-	-	0.083	-	\$26.65	\$ -
	Small	1	71	71	71	0.083	6	\$26.65	\$ 158
SECTOR 30. SUPERALLOY PRODUCERS AND USERS									
ALL	Large	38	18	666	666	0.083	56	\$26.65	\$ 1,480
	Small	0	0	-	-	0.083	-	\$26.65	\$ -
SECTOR 31. CONSTRUCTION									
Industrial Rehabilitation & Maintenance	Large	27	54	1,443	1,443	0.083	120	\$26.65	\$ 3,205
	Small	1	247	276	276	0.083	23	\$26.65	\$ 612
	State Gov't	1	16	17	17	0.083	1	\$26.65	\$ 39
	Local Gov't	1	93	104	104	0.083	9	\$26.65	\$ 230
Hazardous Waste Site Work	Large	16	43	665	665	0.083	55	\$26.65	\$ 1,478
	Small	3	180	603	603	0.083	50	\$26.65	\$ 1,339
	State Gov't	2	1	2	2	0.083	0.2	\$26.65	\$ 4
	Local Gov't	3	252	846	846	0.083	71	\$26.65	\$ 1,879
Refractory Brick Restoration & Maintenance	Large	16	47	733	733	0.083	61	\$26.65	\$ 1,629
	Small	1	185	207	207	0.083	17	\$26.65	\$ 460
Average/Total			75,237	411,209	411,209	0.083	34,267	\$26.65	\$ 913,216