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Appendix 5.9C
Construction HRA
Dispersion Modeling Information

APPENDIX 5.9C

Construction HRA Dispersion Modeling Information

Tables presented in this Appendix are as follows:

Figures presented in this Appendix are as follows:

Alamitos Energy Center
Table 5.9C.1
Construction HRA Source Parameters for AERMOD Input
December 2013

Point Sources

Source ID	Stack Release Type	Easting (X1) (m)	Northing (Y1) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m)	Stack Diameter (m)
CONS001	HORIZONTAL	398200	3737275	1.03	4.60	533	18.0	0.127
CONS002	HORIZONTAL	398225	3737275	1.03	4.60	533	18.0	0.127
CONS003	HORIZONTAL	398250	3737275	1.03	4.60	533	18.0	0.127
CONS004	HORIZONTAL	398250	3737300	1.03	4.60	533	18.0	0.127
CONS005	HORIZONTAL	398250	3737325	1.03	4.60	533	18.0	0.127
CONS006	HORIZONTAL	398275	3737275	0.85	4.60	533	18.0	0.127
CONS007	HORIZONTAL	398275	3737300	0.09	4.60	533	18.0	0.127
CONS008	HORIZONTAL	398275	3737325	0.12	4.60	533	18.0	0.127
CONS009	HORIZONTAL	398175	3736850	2.55	4.60	533	18.0	0.127
CONS010	HORIZONTAL	398175	3736875	2.68	4.60	533	18.0	0.127
CONS011	HORIZONTAL	398175	3736900	2.75	4.60	533	18.0	0.127
CONS012	HORIZONTAL	398175	3736925	3.1	4.60	533	18.0	0.127
CONS013	HORIZONTAL	398175	3736950	3.4	4.60	533	18.0	0.127
CONS014	HORIZONTAL	398175	3736975	3.74	4.60	533	18.0	0.127
CONS015	HORIZONTAL	398175	3737000	3.35	4.60	533	18.0	0.127
CONS016	HORIZONTAL	398175	3737025	2.70	4.60	533	18.0	0.127
CONS017	HORIZONTAL	398200	3736750	2.19	4.60	533	18.0	0.127
CONS018	HORIZONTAL	398200	3736775	2.2	4.60	533	18.0	0.127
CONS019	HORIZONTAL	398200	3736800	2.2	4.60	533	18.0	0.127
CONS020	HORIZONTAL	398200	3736825	2.2	4.60	533	18.0	0.127
CONS021	HORIZONTAL	398200	3736850	2.17	4.60	533	18.0	0.127
CONS022	HORIZONTAL	398200	3736875	2.17	4.60	533	18.0	0.127
CONS023	HORIZONTAL	398200	3736900	2.21	4.60	533	18.0	0.127
CONS024	HORIZONTAL	398200	3736925	2.27	4.60	533	18.0	0.127
CONS025	HORIZONTAL	398200	3736950	3.14	4.60	533	18.0	0.127
CONS026	HORIZONTAL	398200	3736975	3.78	4.60	533	18.0	0.127
CONS027	HORIZONTAL	398200	3737000	3.06	4.60	533	18.0	0.127
CONS028	HORIZONTAL	398200	3737025	2.52	4.60	533	18.0	0.127
CONS029	HORIZONTAL	398200	3737050	1.94	4.60	533	18.0	0.127
CONS030	HORIZONTAL	398200	3737075	1.59	4.60	533	18.0	0.127
CONS031	HORIZONTAL	398200	3737100	1.34	4.60	533	18.0	0.127
CONS032	HORIZONTAL	398200	3737125	1.33	4.60	533	18.0	0.127
CONS033	HORIZONTAL	398200	3737150	1.34	4.60	533	18.0	0.127
CONS034	HORIZONTAL	398200	3737175	1.29	4.60	533	18.0	0.127
CONS035	HORIZONTAL	398225	3736750	1.76	4.60	533	18.0	0.127
CONS036	HORIZONTAL	398225	3736775	1.77	4.60	533	18.0	0.127
CONS037	HORIZONTAL	398225	3736800	1.77	4.60	533	18.0	0.127
CONS038	HORIZONTAL	398225	3736825	1.77	4.60	533	18.0	0.127
CONS039	HORIZONTAL	398225	3736850	1.77	4.60	533	18.0	0.127
CONS040	HORIZONTAL	398225	3736875	1.77	4.60	533	18.0	0.127
CONS041	HORIZONTAL	398225	3736900	1.76	4.60	533	18.0	0.127
CONS042	HORIZONTAL	398225	3736925	1.92	4.60	533	18.0	0.127
CONS043	HORIZONTAL	398225	3736950	3.4	4.60	533	18.0	0.127
CONS044	HORIZONTAL	398225	3736975	3.02	4.60	533	18.0	0.127
CONS045	HORIZONTAL	398225	3737000	2.62	4.60	533	18.0	0.127
CONS046	HORIZONTAL	398225	3737025	2.08	4.60	533	18.0	0.127
CONS047	HORIZONTAL	398225	3737050	1.56	4.60	533	18.0	0.127
CONS048	HORIZONTAL	398225	3737075	1.33	4.60	533	18.0	0.127
CONS049	HORIZONTAL	398225	3737100	1.33	4.60	533	18.0	0.127
CONS050	HORIZONTAL	398225	3737125	1.17	4.60	533	18.0	0.127
CONS051	HORIZONTAL	398225	3737150	1.04	4.60	533	18.0	0.127
CONS052	HORIZONTAL	398225	3737175	1.03	4.60	533	18.0	0.127
CONS053	HORIZONTAL	398250	3736750	1.25	4.60	533	18.0	0.127

Alamitos Energy Center
Table 5.9C.1
Construction HRA Source Parameters for AERMOD Input
December 2013

Point Sources

Source ID	Stack Release Type	Easting (X1) (m)	Northing (Y1) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m)	Stack Diameter (m)
CONS054	HORIZONTAL	398250	3736775	1.36	4.60	533	18.0	0.127
CONS055	HORIZONTAL	398250	3736800	1.39	4.60	533	18.0	0.127
CONS056	HORIZONTAL	398250	3736825	1.39	4.60	533	18.0	0.127
CONS057	HORIZONTAL	398250	3736850	1.39	4.60	533	18.0	0.127
CONS058	HORIZONTAL	398250	3736875	1.39	4.60	533	18.0	0.127
CONS059	HORIZONTAL	398250	3736900	1.47	4.60	533	18.0	0.127
CONS060	HORIZONTAL	398250	3736925	1.89	4.60	533	18.0	0.127
CONS061	HORIZONTAL	398250	3736950	3.5	4.60	533	18.0	0.127
CONS062	HORIZONTAL	398250	3736975	2.55	4.60	533	18.0	0.127
CONS063	HORIZONTAL	398250	3737000	1.70	4.60	533	18.0	0.127
CONS064	HORIZONTAL	398250	3737025	1.40	4.60	533	18.0	0.127
CONS065	HORIZONTAL	398250	3737050	1.20	4.60	533	18.0	0.127
CONS066	HORIZONTAL	398250	3737075	1.06	4.60	533	18.0	0.127
CONS067	HORIZONTAL	398250	3737100	1.03	4.60	533	18.0	0.127
CONS068	HORIZONTAL	398250	3737125	1.03	4.60	533	18.0	0.127
CONS069	HORIZONTAL	398250	3737150	1.03	4.60	533	18.0	0.127
CONS070	HORIZONTAL	398250	3737175	1.03	4.60	533	18.0	0.127
CONS071	HORIZONTAL	398275	3736750	1.02	4.60	533	18.0	0.127
CONS072	HORIZONTAL	398275	3736775	1.02	4.60	533	18.0	0.127
CONS073	HORIZONTAL	398275	3736800	1.02	4.60	533	18.0	0.127
CONS074	HORIZONTAL	398275	3736825	1.02	4.60	533	18.0	0.127
CONS075	HORIZONTAL	398275	3736850	1.02	4.60	533	18.0	0.127
CONS076	HORIZONTAL	398275	3736875	1.02	4.60	533	18.0	0.127
CONS077	HORIZONTAL	398275	3736900	1.08	4.60	533	18.0	0.127
CONS078	HORIZONTAL	398275	3736925	1.70	4.60	533	18.0	0.127
CONS079	HORIZONTAL	398275	3736950	3.2	4.60	533	18.0	0.127
CONS080	HORIZONTAL	398275	3736975	1.65	4.60	533	18.0	0.127
CONS081	HORIZONTAL	398275	3737000	1.16	4.60	533	18.0	0.127
CONS082	HORIZONTAL	398275	3737025	1.04	4.60	533	18.0	0.127
CONS083	HORIZONTAL	398275	3737050	1.03	4.60	533	18.0	0.127
CONS084	HORIZONTAL	398275	3737075	1.01	4.60	533	18.0	0.127
CONS085	HORIZONTAL	398275	3737100	0.77	4.60	533	18.0	0.127
CONS086	HORIZONTAL	398275	3737125	0.79	4.60	533	18.0	0.127
CONS087	HORIZONTAL	398275	3737150	0.81	4.60	533	18.0	0.127
CONS088	HORIZONTAL	398275	3737175	0.83	4.60	533	18.0	0.127
CONS089	HORIZONTAL	398125	3736575	0.00	4.60	533	18.0	0.127
CONS090	HORIZONTAL	398125	3736600	1.70	4.60	533	18.0	0.127
CONS091	HORIZONTAL	398125	3736625	1.65	4.60	533	18.0	0.127
CONS092	HORIZONTAL	398125	3736650	1.64	4.60	533	18.0	0.127
CONS093	HORIZONTAL	398125	3736675	1.98	4.60	533	18.0	0.127
CONS094	HORIZONTAL	398150	3736525	2.25	4.60	533	18.0	0.127
CONS095	HORIZONTAL	398150	3736575	0.60	4.60	533	18.0	0.127
CONS096	HORIZONTAL	398150	3736600	1.36	4.60	533	18.0	0.127
CONS097	HORIZONTAL	398150	3736625	2.29	4.60	533	18.0	0.127
CONS098	HORIZONTAL	398150	3736650	2.27	4.60	533	18.0	0.127
CONS099	HORIZONTAL	398150	3736675	2.26	4.60	533	18.0	0.127
CONS100	HORIZONTAL	398175	3736525	2.28	4.60	533	18.0	0.127
CONS101	HORIZONTAL	398175	3736575	0.12	4.60	533	18.0	0.127
CONS102	HORIZONTAL	398175	3736600	1.66	4.60	533	18.0	0.127
CONS103	HORIZONTAL	398175	3736625	2.24	4.60	533	18.0	0.127
CONS104	HORIZONTAL	398175	3736650	2.25	4.60	533	18.0	0.127
CONS105	HORIZONTAL	398175	3736675	2.25	4.60	533	18.0	0.127
CONS106	HORIZONTAL	398200	3736525	3.2	4.60	533	18.0	0.127

Alamitos Energy Center
Table 5.9C.1
Construction HRA Source Parameters for AERMOD Input
December 2013

Point Sources

Source ID	Stack Release Type	Easting (X1) (m)	Northing (Y1) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m)	Stack Diameter (m)
CONS107	HORIZONTAL	398200	3736575	2.26	4.60	533	18.0	0.127
CONS108	HORIZONTAL	398200	3736600	2.31	4.60	533	18.0	0.127
CONS109	HORIZONTAL	398200	3736625	2.30	4.60	533	18.0	0.127
CONS110	HORIZONTAL	398200	3736650	2.25	4.60	533	18.0	0.127
CONS111	HORIZONTAL	398200	3736675	2.24	4.60	533	18.0	0.127
CONS112	HORIZONTAL	398225	3736525	3.7	4.60	533	18.0	0.127
CONS113	HORIZONTAL	398225	3736550	3.7	4.60	533	18.0	0.127
CONS114	HORIZONTAL	398225	3736575	3.7	4.60	533	18.0	0.127
CONS115	HORIZONTAL	398225	3736600	3.2	4.60	533	18.0	0.127
CONS116	HORIZONTAL	398225	3736625	2.32	4.60	533	18.0	0.127
CONS117	HORIZONTAL	398225	3736650	2.24	4.60	533	18.0	0.127
CONS118	HORIZONTAL	398225	3736675	2.29	4.60	533	18.0	0.127
CONS119	HORIZONTAL	398250	3736525	3.8	4.60	533	18.0	0.127
CONS120	HORIZONTAL	398250	3736550	3.8	4.60	533	18.0	0.127
CONS121	HORIZONTAL	398250	3736575	3.8	4.60	533	18.0	0.127
CONS122	HORIZONTAL	398250	3736600	3.3	4.60	533	18.0	0.127
CONS123	HORIZONTAL	398250	3736625	2.51	4.60	533	18.0	0.127
CONS124	HORIZONTAL	398250	3736650	2.19	4.60	533	18.0	0.127
CONS125	HORIZONTAL	398250	3736675	1.02	4.60	533	18.0	0.127
CONS126	HORIZONTAL	397950	3737100	3.06	4.6	533	18	0.127
CONS127	HORIZONTAL	397950	3737125	2.62	4.6	533	18	0.127
CONS128	HORIZONTAL	397950	3737150	2.27	4.6	533	18	0.127
CONS129	HORIZONTAL	397950	3737175	2.25	4.6	533	18	0.127
CONS130	HORIZONTAL	397950	3737200	2.25	4.6	533	18	0.127
CONS131	HORIZONTAL	397975	3737100	3.18	4.6	533	18	0.127
CONS132	HORIZONTAL	397975	3737125	2.94	4.6	533	18	0.127
CONS133	HORIZONTAL	397975	3737150	2.35	4.6	533	18	0.127
CONS134	HORIZONTAL	397975	3737175	2.25	4.6	533	18	0.127
CONS135	HORIZONTAL	397975	3737200	2.02	4.6	533	18	0.127
CONS136	HORIZONTAL	398000	3737100	3.16	4.6	533	18	0.127
CONS137	HORIZONTAL	398000	3737125	3.12	4.6	533	18	0.127
CONS138	HORIZONTAL	398000	3737150	2.71	4.6	533	18	0.127
CONS139	HORIZONTAL	398000	3737175	2.54	4.6	533	18	0.127
CONS140	HORIZONTAL	398000	3737200	2.01	4.6	533	18	0.127
CONS141	HORIZONTAL	398025	3737100	3	4.6	533	18	0.127
CONS142	HORIZONTAL	398025	3737125	2.71	4.6	533	18	0.127
CONS143	HORIZONTAL	398025	3737150	2.68	4.6	533	18	0.127
CONS144	HORIZONTAL	398025	3737175	2.56	4.6	533	18	0.127
CONS145	HORIZONTAL	398025	3737200	2.27	4.6	533	18	0.127
CONS146	HORIZONTAL	398050	3737075	3.09	4.6	533	18	0.127
CONS147	HORIZONTAL	398050	3737100	2.86	4.6	533	18	0.127
CONS148	HORIZONTAL	398050	3737125	2.77	4.6	533	18	0.127
CONS149	HORIZONTAL	398050	3737150	2.56	4.6	533	18	0.127
CONS150	HORIZONTAL	398050	3737175	2.3	4.6	533	18	0.127
CONS151	HORIZONTAL	398050	3737200	2.08	4.6	533	18	0.127
CONS152	HORIZONTAL	398075	3737000	3.62	4.6	533	18	0.127
CONS153	HORIZONTAL	398075	3737025	3.48	4.6	533	18	0.127
CONS154	HORIZONTAL	398075	3737050	3.37	4.6	533	18	0.127
CONS155	HORIZONTAL	398075	3737075	3.12	4.6	533	18	0.127
CONS156	HORIZONTAL	398075	3737100	2.79	4.6	533	18	0.127
CONS157	HORIZONTAL	398075	3737125	2.55	4.6	533	18	0.127
CONS158	HORIZONTAL	398075	3737150	2.35	4.6	533	18	0.127
CONS159	HORIZONTAL	398075	3737175	2.18	4.6	533	18	0.127

Alamitos Energy Center
Table 5.9C.1
Construction HRA Source Parameters for AERMOD Input
December 2013

Point Sources

Source ID	Stack Release Type	Easting (X1) (m)	Northing (Y1) (m)	Base Elevation (m)	Stack Height (m)	Temperature (K)	Exit Velocity (m)	Stack Diameter (m)
CONS160	HORIZONTAL	398075	3737200	1.94	4.6	533	18	0.127
CONS161	HORIZONTAL	398100	3737000	3.62	4.6	533	18	0.127
CONS162	HORIZONTAL	398100	3737025	3.4	4.6	533	18	0.127
CONS163	HORIZONTAL	398100	3737050	3.16	4.6	533	18	0.127
CONS164	HORIZONTAL	398100	3737075	2.85	4.6	533	18	0.127
CONS165	HORIZONTAL	398100	3737100	2.58	4.6	533	18	0.127
CONS166	HORIZONTAL	398100	3737125	2.34	4.6	533	18	0.127
CONS167	HORIZONTAL	398100	3737150	1.97	4.6	533	18	0.127
CONS168	HORIZONTAL	398100	3737175	1.94	4.6	533	18	0.127
CONS169	HORIZONTAL	398100	3737200	1.68	4.6	533	18	0.127
CONS170	HORIZONTAL	398125	3737050	2.93	4.6	533	18	0.127
CONS171	HORIZONTAL	398125	3737075	2.59	4.6	533	18	0.127
CONS172	HORIZONTAL	398125	3737100	2.33	4.6	533	18	0.127
CONS173	HORIZONTAL	398125	3737125	1.97	4.6	533	18	0.127
CONS174	HORIZONTAL	398125	3737150	1.86	4.6	533	18	0.127
CONS175	HORIZONTAL	398125	3737175	1.67	4.6	533	18	0.127
CONS176	HORIZONTAL	398125	3737200	1.64	4.6	533	18	0.127
CONS177	HORIZONTAL	398150	3737050	2.57	4.6	533	18	0.127
CONS178	HORIZONTAL	398150	3737075	2.26	4.6	533	18	0.127
CONS179	HORIZONTAL	398150	3737100	1.95	4.6	533	18	0.127
CONS180	HORIZONTAL	398150	3737125	1.73	4.6	533	18	0.127
CONS181	HORIZONTAL	398150	3737150	1.64	4.6	533	18	0.127
CONS182	HORIZONTAL	398150	3737175	1.59	4.6	533	18	0.127
CONS183	HORIZONTAL	398150	3737200	1.48	4.6	533	18	0.127
CONS184	HORIZONTAL	398175	3737050	2.28	4.6	533	18	0.127
CONS185	HORIZONTAL	398175	3737075	1.91	4.6	533	18	0.127
CONS186	HORIZONTAL	398175	3737100	1.63	4.6	533	18	0.127
CONS187	HORIZONTAL	398175	3737125	1.52	4.6	533	18	0.127
CONS188	HORIZONTAL	398175	3737150	1.41	4.6	533	18	0.127
CONS189	HORIZONTAL	398175	3737175	1.33	4.6	533	18	0.127
CONS190	HORIZONTAL	398175	3737200	1.33	4.6	533	18	0.127

Alamitos Energy Center
Table 5.9C.2
Construction HRA Emission Parameters for AERMOD Input
December 2013

Point Sources

Source Group ID	Number of Sources	Total DPM Emissions (tons)	Total Annualized DPM Emissions (tpy)	DPM Emissions per Source (tpy)
Warehouse Demolition	8	0.21	0.018	0.0023
Peaker Demo/Blocks 1 & 2 Cons	10	0.45	0.039	0.0039
Blocks 1 & 2 Construction	70	1.35	0.12	0.0017
Units 5 & 6 Demo/Block 3 Cons	37	1.21	0.10	0.0028
Units 1 & 2 Demolition	20	0.24	0.021	0.0010
Units 3 & 4 Demo/Block 4 Cons	45	0.63	0.054	0.0012

Annual average emissions were calculated based on a 139-month construction schedule.

Alamitos Energy Center
Figure 5.9C.1
December 2013
AERMOD Construction HRA Model Setup

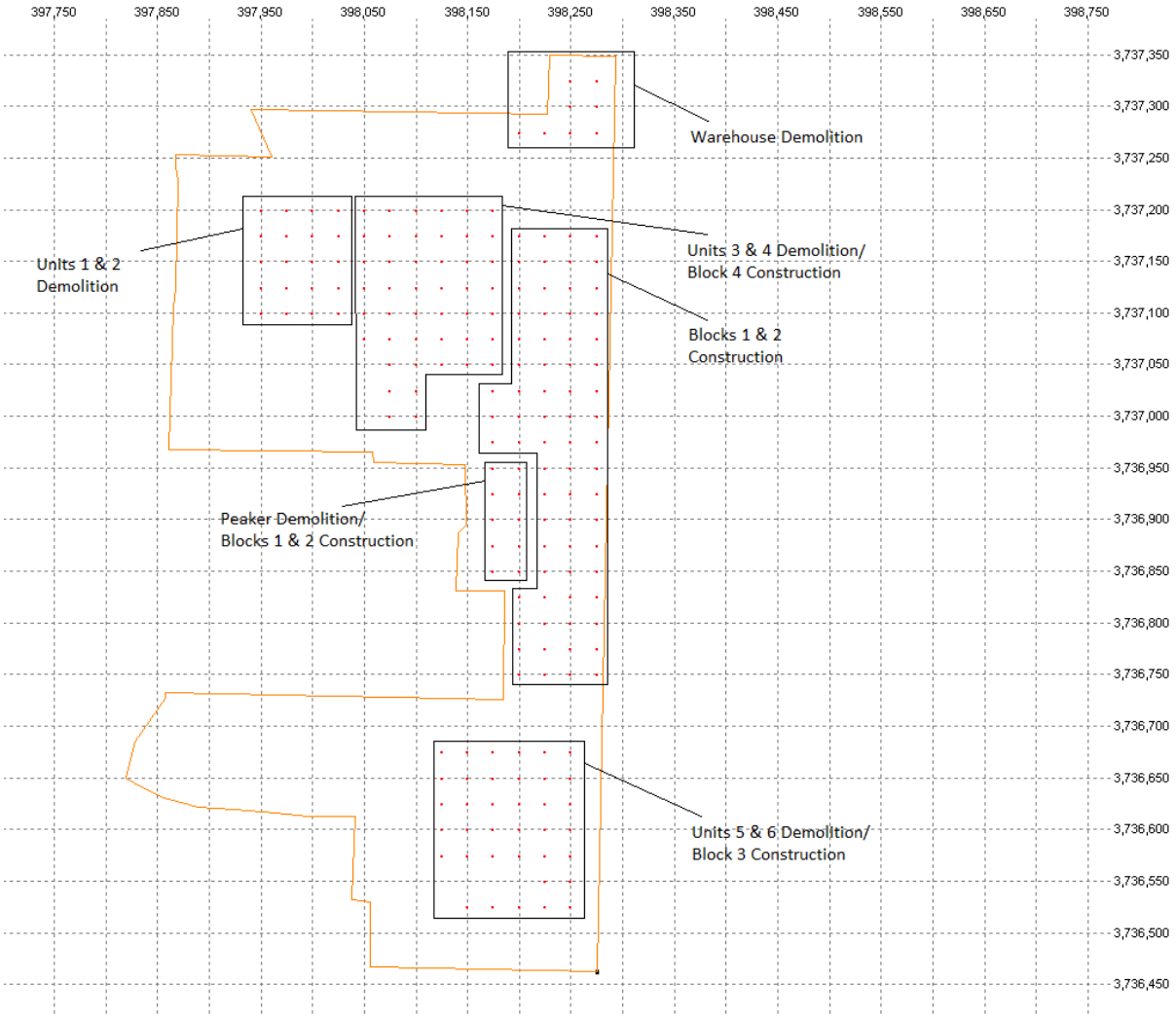

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Figure 5.9C.2
December 2013
Construction HRA Receptor Grid