Attachment A

Port of Los Angeles TraPac Federal Action General Conformity Calculation Methodology and Results

CDM

Memorandum

To: *John Pehrson*

From: *Katie Travis*

Date: *3/12/09*

Subject: *Port of Los Angeles TraPac Federal Action General Conformity Calculation Methodology*

The Federal action associated the Port of Los Angeles (POLA) Berths 136-147 (TraPac) Container Terminal Project requires a general conformity determination for submittal to the U.S. Environmental Protection Agency (USEPA) in order to comply with the requirements of the general conformity regulations and to obtain a permit from the U.S. Army Corps of Engineers (USACE). This memo documents the methods and results used to calculate pollutant emissions from the Federal action for use in this general conformity determination. The determination will be published with an Addendum to the Final EIS that clarifies the Federal action and updates the construction emissions associated with the Federal action.

- Analysis began with information presented in the Berths 136-137 Container Terminal Draft and Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR).
- Information in the Final EIS/EIR was updated by POLA based on updated construction scope and project schedule information.

General Conformity Process

The first step in the general conformity process is to determine if emissions of the pollutants of concern are above the de minimis emission rates defined in the general conformity regulations. This step is referred to as the Applicability Analysis. The pollutants of concern in the South Coast Air Basin (SCAB) are ozone (and its precursors), NO_2 (and its precursor), CO, PM_{10} and $PM_{2.5}$ (and its precursors). The precursors of ozone include NOx and ROG; the precursor of NO_2 is NOx; and the precursors of $PM_{2.5}$ include NOx, SOx, ROG, and ammonia, along with directly emitted $PM_{2.5}$. Due to the severity of the ozone nonattainment designation, the de minimis emission rates for NOx and ROG as ozone precursors (10 tpy) are much more stringent than the de minimis emission rates for NOx and ROG as PM2.5 precursors (100 tpy) or NO_2 precursors (100 tpy NOx). Therefore, the de minimis emission rates for NOx and ROG will be 10 tpy of each as ozone precursors.

Revisions to Final EIR/EIS Project Scope and Activities

Project Scope

The project activity names, durations, and types were updated for this conformity determination by POLA, and these updates are incorporated in the construction schedule in **Exhibit A**. This table shows the original activity names and the corresponding names in the new schedule. The construction is performed over a period of eight years beginning in 2008, with no activity occurring in 2011 and 2012.

Project Activities

Exhibit B.1 shows the original equipment list from the Final EIS/EIR, with marked revisions and **Exhibit B.2** shows these revisions incorporated into a final equipment list. Major revisions were made to *Replace Existing Wharf.*

Calculation Method

The equipment list from the Final EIS/EIR included the following information for each piece of equipment:

- Equipment by activity
- HP rating
- Load factor (LF)
- Number Active (No. Units) *
- Hours/Day*
- Work Days
- Hourly HP-Hours
- Daily HP-Hours*
- Total HP-Hours*

**For haul trucks, material trucks, and concrete trucks, different information was presented in the table. (Number Active = miles/roundtrip, Hours/Day = daily truck trips, Daily Hp-Hrs = daily miles, and Total Hp-Hrs = total miles)*

Hourly, daily, and total HP-hours are calculated from HP rating, LF, No. Units, Hours/Day, and Work Days. Therefore, although HP-hours were originally given in the Final EIS/EIR, when the other pieces of information changed, these HP-hours had to be recalculated.

Mitigated emission factors (EF) for off-road equipment in g/hp-hr, on-road equipment in g/mile, and boats in g/hp-hr can be found in the Final EIS/EIR in Table D1.1.73 - *Mitigated Air Emission Factors for the Berths 136-147 Terminal Project Alternatives Construction Activities*. From this information, the following calculations can be made to reach total emissions for each pollutant caused by the Federal action.

1. Calculate hourly HP-hrs for each piece of equipment.

   $$hourlyHP-hrs = NoUnits \times HP \times LF$$

2. Calculate emission rates for each pollutant in lbs/hr and lbs/day.

   $$emissions(lbs/hr) = hourlyHP-hrs \times EF$$

   $$emissions(lbs/day) = emissions(lbs/hr) * hours/day$$

3. On-road trucks do not have specified HP ratings. Therefore they require a different calculation method to reach emissions in lbs/day.

   $$emissions(lbs/day) = dailymiles * EF$$

4. Calculate days of operation for each piece of equipment.
   a. This was done by finding the ratio between the scheduled days for each construction activity in the original EIS/EIR and the new schedule in **Exhibit A**, and multiplying the days of operation for each piece of equipment by this ratio.
5. Calculate total project emission rates for each pollutant in tons.

   $$emissions(tons) = emissions(lbs/day) * days/2000$$

Resulting Total and Yearly Emissions Caused by the Federal Action

The total emission rates caused by the Federal action are summarized in **Table 1** below. The step-by-step calculation spreadsheet tables are presented in **Exhibit C**. Total emissions for each pollutant caused by the Federal action are compared to the general conformity de minimis emission rates to determine if total Federal action emissions are significant. The total Federal action emissions for NO_x exceeded this threshold. Because the de minimis emission rates are in tons of pollutant per year (tpy), annual NO_x emissions were calculated for each year of the Federal action according to the project schedule in **Exhibit A**. Emissions for each year were then compared to the de minimis emission rates. **Table 2** shows that the de minimis emission rates are exceeded in 2009 and 2015, with the peak year of construction emissions occurring in 2009. Finally, **Table 3** presents the emissions sorted by the equipment categories found in the USEPA-approved SIP, and the CARB-approved 2007 Air Quality Management Plan.

Exhibits

Exhibit A: Federal Action Construction Schedule
Exhibit B.1: Original Equipment List for the Federal Action with Markup
Exhibit B.2: Equipment List for the Federal Action
Exhibit C.1: Hourly Federal Action Construction Emissions (Based on CEQA Mitigation)
Exhibit C.2: Daily Federal Action Construction Emissions (Based on CEQA Mitigation)
Exhibit C.3: Total Federal Action Construction Emissions (Based on CEQA Mitigation)
Exhibit C.4: Yearly Federal Action NOx Construction Emissions (Based on CEQA Mitigation)

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Table 1: Federal Action Construction Total Criteria Pollutant Emissions (tons)

Construction Phase & Activity (New Schedule / EIS) [b.]	ROG	CO	NOx	SOx	PM10	PM2.5
B145-147 Phase 1						
Wharf Demolition / Wharf Demolition	0.1	0.5	2.5	0.0	0.1	0.1
Remove 2 Existing Cranes at Berth 145 / Remove 2 Existing Cranes at Berth 144	0.0	0.0	0.0	0.0	0.0	0.0
Pile Driving - Row A/retrofit / Piledriving - Waterside Piles	0.0	0.0	0.3	0.0	0.0	0.0
Sheet Pile Wall / Piledriving - sheet piles	0.0	0.1	0.9	0.0	0.0	0.0
Electric Dredging / Dredge and disposal	0.2	0.7	4.8	0.0	0.2	0.2
Rock / Rip-Rap Placement	0.5	1.7	10.6	0.0	0.5	0.5
Pile Driving - Including Landside / Piledriving - Landside	0.1	0.4	1.9	0.0	0.1	0.1
Wharf Deck / Replace Existing Wharf	0.2	1.1	3.3	0.0	0.1	0.1
B145-147 Phase 2						
Wharf Demolition / Wharf Demolition	0.1	0.2	1.0	0.0	0.0	0.0
Waterside Crane Girder[c.] / Upgrade Existing Wharf	0.0	0.2	0.7	0.0	0.0	0.0
Pile Driving/Landside / Piledriving - Landside	0.0	0.1	0.5	0.0	0.0	0.0
Install 3 Cranes at Berth 145 / Install 3 Cranes at Berth 144	0.0	0.1	1.2	0.7	0.1	0.1
B136-139						
Wharf Demolition / Wharf Demolition	0.1	0.5	2.5	0.0	0.1	0.1
Sheet Pile Wall / Piledriving - Sheet piles	0.1	0.2	1.1	0.0	0.0	0.0
Electric Dredging / Dredge and disposal	0.2	0.6	4.5	0.0	0.2	0.2
Rock / Rip-Rap Placement	0.5	1.7	10.6	0.0	0.5	0.5
Pile Driving - Including Landside / Piledriving - Landside	0.1	0.4	1.9	0.0	0.1	0.1
Wharf Deck / Replace Existing Wharf	0.2	1.1	3.3	0.0	0.1	0.1
PROJECT CUMULATIVE POLLUTANT EMISSIONS (tons)[a.]	**2.6**	**9.8**	**51.7**	**0.7**	**2.2**	**2.1**
General Conformity de minimis Threshold (tpy)[d.]	**10**	**100**	**10**	**100**	**70**	**100**
				(as PM2.5)		
Were the General Conformity de minimis thresholds exceeded?	**No**	**No**	**Yes[e.]**	**No**	**No**	**No**

a. Emissions shown are for entire construction duration, not peak annual.

b. The New Schedule name refers to the construction activity name provided by LAHD for the updated schedule of Federal action activities. The EIS name refers to the construction activity name used in the Draft and Final EIS/EIR (USACE/LAHD 2007a, b).

c. The crane girder is the part of the wharf that supports the crane.

d. The de minimis rates are meant to be compared to peak annual emissions. If total project emissions exceed the de minimis emission rates, then annual emissions will be determined.

e. Federal action NOx emissions exceeded the threshold; peak annual NO_x emissions will be calculated (see Table 2).

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Table 2: Federal Action Construction NOx Emissions (tons/year)

Construction Phase & Activity (New Schedule / EIS)[a.,b.]	2008	2009	2010	2013	2014	2015	2016
B145-147 Phase 1							
Wharf Demolition / Wharf Demolition	0.5	2.0	-	-	-	-	-
Remove 2 Existing Cranes at Berth 145 / Remove 2 Existing Cranes at Berth 144	-	0.0	-	-	-	-	-
Pile Driving - Row A/retrofit / Piledriving - Waterside Piles	-	0.3	-	-	-	-	-
Sheet Pile Wall / Piledriving - sheet piles	-	0.9	-	-	-	-	-
Electric Dredging / Dredge and disposal	-	4.1	0.7	-	-	-	-
Rock / Rip-Rap Placement	-	10.6	-	-	-	-	-
Pile Driving - Including Landside / Piledriving - Landside	-	1.5	0.4	-	-	-	-
Wharf Deck / Replace Existing Wharf	-	1.4	2.0	-	-	-	-
B145-147 Phase 2							
Wharf Demolition / Wharf Demolition	-	-	1.0	-	-	-	-
Waterside Crane Girder / Upgrade Existing Wharf	-	-	0.7	-	-	-	-
Pile Driving/Landside / Piledriving - Landside	-	-	0.5	-	-	-	-
Install 3 Cranes at Berth 145 / Install 3 Cranes at Berth 144	-	-	1.2	-	-	-	-
B136-139							
Wharf Demolition / Wharf Demolition	-	-	-	1.5	1.0	-	-
Sheet Pile Wall / Piledriving - Sheet piles	-	-	-	-	1.1	-	-
Electric Dredging / Dredge and disposal	-	-	-	-	3.0	1.5	-
Rock / Rip-Rap Placement	-	-	-	-	-	10.6	-
Pile Driving - Including Landside / Piledriving - Landside	-	-	-	-	-	1.9	-
Wharf Deck / Replace Existing Wharf	-	-	-	-	-	1.1	2.2
ANNUAL NOx EMISSIONS (tpy)	**0.5**	**20.9**	**6.4**	**1.5**	**5.1**	**15.1**	**2.2**
Was the General Conformity de minimis emission rate (10 tpy) exceeded?	**No**	**Yes**	**No**	**No**	**No**	**Yes**	**No**

a. The New Schedule name refers to the construction activity name provided by LAHD for the updated schedule of Federal action activities. The EIS name refers to the construction activity name used in the Draft and Final EIS/EIR (USACE/LAHD 2007a,b).
b. No construction occurs in 2011 or 2012.
Values may not add to exact totals due to rounding.

Table 3: Federal Action Construction Emissions by Source Category in SIP or 2007 AQMP (tons/year)

Source Category	2008	2009	2010	2011	2012	2013	2014	2015	2016
Heavy-Duty Diesel Trucks (SIP) or Heavy-Heavy Duty Diesel Trucks (2007 AQMP)	0.0	0.1	0.3	-	-	0.0	0.1	0.1	0.1
Mobile Equipment (SIP) or Off-Road Equipment (2007 AQMP)	0.4	9.3	4.2	-	-	1.2	2.5	5.9	2.1
Commercial Boats (SIP) or Ships and Commercial Boats (2007 AQMP)	0.1	11.5	1.9	-	-	0.3	2.6	9.1	0.0
ANNUAL NOx EMISSIONS (tpy)[a.]	**0.5**	**20.9**	**6.4**	**-**	**-**	**1.5**	**5.1**	**15.1**	**2.2**

a. No construction occurs in 2011 or 2012.
Values may not add to exact totals due to rounding.

Exhibit A: Federal Action Construction Schedule

Activity		Duration (days)	Start (mm-yy)	End (mm-yy)
EIR Definition	*POLA Revised Definition*			
B145-147 Construction - Phase 1 (Not related to EIR Phase 1)				
Wharf Demolition 1	Wharf Demolition	150	Dec-08	Apr-09
Remove 2 Existing Cranes at Berth 144	Remove 2 Existing Cranes at Berth 145	4	Jan-09	Jan-09
Piledriving - Waterside Piles	Pile Driving - Row A/retrofit	21	Jan-09	Feb-09
Piledriving - Sheet Piles 1	Sheet Pile Wall	150	Feb-09	Jul-09
Dredge and Disposal 1	Elec Dredging	180	Jul-09	Jan-10
Rip-Rap Placement 1	Rock	120	Aug-09	Dec-09
Pile Driving Landside 1	Pile Driving (incl landside)	120	Sep-09	Jan-10
Replace Existing Wharf 1	Wharf Deck	180	Oct-09	Apr-10
B145-147 Construction - Phase 2 (Not related to EIR Phase 2)				
Wharf Demolition 2	Wharf Demolition	60	Jun-10	Aug-10
Upgrade Existing Wharf	Waterside Crane Girder	60	Aug-10	Oct-10
Pile Driving Landside 2	Pile Driving/landside	30	Oct-10	Nov-10
Install 3 Cranes at Berth 144	Install 3 Cranes at Berth 145	4	Dec-10	Dec-10
B136-139 Construction				
Wharf Demolition 3	Wharf Demolition	150	Oct-13	Feb-14
Piledriving - Sheet Piles 2	Sheet Pile Wall	180	Mar-14	Aug-14
Dredge and Disposal 2	Elec Dredging	180	Sep-14	Mar-15
Rip-Rap Placement 2	Rock	120	Mar-15	Jul-15
Pile Driving Landside 3	Pile Driving (incl landside)	120	Jul-15	Oct-15
Replace Existing Wharf 2	Wharf Deck	180	Nov-15	May-16

Exhibit B.1: Original Equipment List for Federal Action with Markup

Work days based on revised schedule, except as noted below.

Table D1.1.1. Emission Source Data for Wharf Improvements at Berths 144-147 - Berths 136-1[illegible] Project Phase 1 (2007-2010) (Pg 1 of 3).

Construction Activity/Equipment Type	Hp Rating	Ave. Daily Load Factor	Number Active	Hourly Hp-Hrs	Hours/ Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
Wharf Demolition								
Air Compressor	50	0.60	2	30	8	240	10	2,400
Crane - 220-Ton Manitowoc 888	330	0.50	1	165	8	1,320	38	50,160
Derrick Barge	195	0.50	1	98	8	780	28	21,840
Excavator - Cat 345B	290	0.50	1	145	8	1,160	10	11,600
Forklift	105	0.50	1	53	6	315	10	3,150
Generator	45	0.75	1	34	8	270	10	2,700
Haul Truck - Demolished Materials (1) (2)	NA	NA	6	NA	8	48	9	443
Loader - Cat 966E	220	0.50	1	110	8	880	38	33,440
Tugboat	1,200	0.25	1	300	2	2,400	28	67,200
Vibratory Hammer	45	0.60	1	27	4	216	28	6,048
Remove 2 Existing Cranes at Berth ~~144~~								
Crane - 50 ton	330	0.30	2	198	8	1,584	4	6,336
Winch	305	0.50	1	153	4	610	4	2,440
Tugboat	1,200	0.25	1	300	8	2,400	2	4,800
Tugboat	1,200	0.68	1	816	1	816	1	816
Piledriving - Sheet Piles								
Derrick Barge Crane Hoist	564	0.25	1	141	4	564	87	49,068
Generator - Pile Hammer	190	0.60	1	114	8	912	87	79,344
Tugboat	1,200	0.25	1	300	1	300	87	26,100
~~Cargo Ship - Transit - Sheetpile Delivery (3)~~	~~NA~~	~~NA~~	~~1~~	~~NA~~	~~NA~~	~~NA~~	~~2~~	~~NA~~
~~Tugboat - Cargo Vessel Assist~~	~~4,106~~	~~0.31~~	~~1~~	~~1,273~~	~~1~~	~~1,273~~	~~2~~	~~2,546~~
~~Cargo Ship - Hotelling (3)~~	~~NA~~	~~NA~~	~~1~~	~~NA~~	~~24~~	~~NA~~	~~1~~	~~NA~~
Rip-Rap Placement (4)								
Barge - Generator	90	0.60	1	54	10	540	40.5	21,870
Barge - Generator	229	0.60	1	137	10	1,374	40.5	55,647
Barge - Deck Winch	120	0.50	1	60	10	600	40.5	24,300
Barge - Main Hoist	335	0.50	1	168	10	1,675	40.5	67,838
Tracked Loader - Cat 973	210	0.50	1	105	10	1,050	40.5	42,525
Tugboat - Generator	89	0.43	2	77	18	1,378	40.5	55,798
Tugboat - Main Engines (5)	850	0.68	2	2,176	7	26,112	40.5	1,057,536
Dredge and Disposal (6)								
~~Derrick Barge - Crane~~ Electric clamshell bucket	564	0.50	1	282	24	6,768	88.3	597,840
~~Derrick Barge - Deck Winch~~ Electric	238	0.50	2	238	6	1,428	88.3	126,140
~~Derrick Barge - Generator~~	432	0.60	1	259	24	6,221	88.3	549,504
Derrick Barge - Generator	135	0.60	1	81	6	486	88.3	42,930
Haul Trucks - Berth 205 ~~to Anch. Rd.~~ (1) (7)	NA	NA	0.5	NA	200	200	32.5 days	17,700
Loader - 962G ~~- Anchorage Rd.~~	200	0.50	1	100	16	1,600	88.3	141,333
Tug Boat - Transport Barge to Berth 205 (8)	1,350	0.68	2	1,836	0.8	1,469	88.3	129,744

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Replace with haul trucks: 8 daily trips, 4 miles per roundtrip.

Notes: (1) Equipment usage obtained from West Basin TIP FEIR Appendix E Table E.2-11 (LAHD 1997), but work days multiplied by 739/2000, as this ratio is the proposed/West Basin TIP wharf demolition lenghts.

(2) Number Active = miles/roundtrip, Hours/Day = daily truck trips, Daily Hp-Hrs = daily miles, and Total Hp-Hrs = total miles.

(3) See Table C1-XX for a summary of the associated activity data. Arrival/departure would not occur on the same day.

(4) Equipment usage obtained from West Basin TIP FEIR 2nd Addendum Appendix Table AQ-1 (LAHD 2002), but work days multiplied by 739/1200, as this ratio is the proposed/West Basin TIP 2nd Addendum new wharf construction lenghts.

(5) Hours/Day = round trip duration between Berth 144 and Catalina Island (60 nautical miles [nm]) @ 5 knots (kts). Barge capacity = 2000 tons.

(6) Equipment usage obtained from West Basin TIP FEIR 2nd Addendum Appendix Table AQ-1 (LAHD 2002) and based upon a daily dredging rate of 3,000 cubic yards (cy).

(7) Assumes a truck capacity of 20 cy and a water-bulked daily disposal volume of 3,600 cy. Total days based on 130,000 cy going to land disposal.

(8) Daily/total dredging volumes = 3,000/265,000 cy. With a water bulking factor of 1.2, daily/total dispoal volumes = 3,600/318,000 cy. Use of a 1,800 cy barge will require two round trips/day. Roundtrip barging activity = 2 nm @ 5 kts.

New Tugboat – Transport Barge to ocean disposal site LA-2 (9a).
(9a) Two round trips/day with 1,800 cy barges; round trip distance = 2 x 8.4 nm = 16.8 nm @ 5 kts.
Total days = 130,000 cy / (2 x 1,800 cy) = 36 days.

Exhibit B.1: Original Equipment List for Federal Action with Markup (continued)

Work days based on revised schedule, except as noted below.

Table D1.1.2. Emission Source Data for Wharf Improvements at Berths 144-147 - Berths 136-147 Project Phase 1 (2007-2010) (Pg 2 of 3).

Construction Activity/Equipment Type	Hp Rating	Ave. Daily Load Factor	Number Active	Hourly Hp-Hrs	Hours/ Day	Daily Hp-Hrs	Work Days	Total Hp-Hrs
Piledriving - Waterside Piles								
Derrick Barge Crane Hoist	564	0.25	1	141	4	564	33	18,612
Generator - Pile Hammer	190	0.60	1	114	8	912	33	30,096
Haul Trucks - Pile Deliveries (1)	NA	NA	4	NA	8	2,080	11	22,880
Jet Pump	290	0.60	1	174	8	1,392	33	45,936
Tugboat	1,200	0.25	1	300	1	300	33	9,900
Piledriving - Landside Piles								
Crane - 220-Ton Manitowoc 888	330	0.50	1	165	8	1,320	54	71,280
Forklift	105	0.50	1	53	8	420	54	22,680
Generator - Pile Hammer	190	0.60	1	114	8	912	54	49,248
Jet Pump	290	0.60	1	174	8	1,392	54	75,168
Haul Trucks - Pile Deliveries (1)	NA	NA	4	NA	8	2,164	17	36,790
Replace Existing Wharf (9)								
Air Compressor - 185 CFM	70	0.60	2	42	8	336	160	53,760
Air Compressor - 750 CFM	300	0.60	1	180	8	1,440	160	230,400
~~Air Compressor - 825 CFM~~	~~335~~	~~0.60~~	~~1~~	~~201~~	~~8~~	~~1,608~~	~~160~~	~~257,280~~
~~Air Compressor - 900 CFM~~	~~350~~	~~0.60~~	~~1~~	~~210~~	~~8~~	~~1,680~~	~~160~~	~~268,800~~
~~Bulldozer - D6~~	~~165~~	~~0.50~~	~~1~~	~~83~~	~~8~~	~~660~~	~~13~~	~~8,580~~
~~Bulldozer - D8~~	~~305~~	~~0.50~~	~~1~~	~~153~~	~~8~~	~~1,220~~	~~6~~	~~7,320~~
Concrete Boom Pump	57	0.50	1	29	2	228	15	1,368
Concrete Trucks (2)	NA	NA	15	NA	182	2,725	6	16,350
Crane - 220-Ton Manitowoc 888	330	0.50	1	165	8	1,320	80	105,600
~~Crane - 275-Ton Manitowoc 999~~	~~431~~	~~0.50~~	~~6~~	~~1,293~~	~~8~~	~~10,344~~	~~80~~	~~827,520~~
Crane - Manitowoc 4000	350	0.50	1	175	8	1,400	53	74,200
Crew Boat	240	0.25	1	60	4	240	3	720
~~Excavator - Cat 345B~~	~~290~~	~~0.50~~	~~1~~	~~145~~	~~8~~	~~1,160~~	~~80~~	~~92,800~~
~~Excavator w/ Ram -Komatso PC 220 LC5~~	~~157~~	~~0.60~~	~~1~~	~~94~~	~~8~~	~~754~~	~~53~~	~~39,941~~
~~Flat Bed~~	~~180~~	~~0.20~~	~~1~~	~~36~~	~~4~~	~~144~~	~~27~~	~~3,888~~
Forklift - Cat 200	125	0.50	3	188	6	1,125	160	180,000
Generator	45	0.75	1	34	8	270	13	3,510
Haul Trucks - Material Deliveries (1)	NA	NA	15	NA	5	75	120	9,000
Loader - Cat 966E	220	0.50	1	110	6	660	9	5,940

Notes: (9) Equipment usage based upon replacement of ~~739 feet of wharf at Berth 144~~ 705 feet of wharf at Berth 146.

Exhibit B.1: Original Equipment List for Federal Action with Markup (continued)

Table D1.1.3. Emission Source Data for Wharf Improvements at Berths 144-147 - Berths 136-147 Project Phase 1 (2007-2010) (Pg 3 of 3).

Work days based on revised schedule, except as noted below.

Construction Activity/Equipment Type	*Hp Rating*	*Ave. Daily Load Factor*	*Number Active*	*Hourly Hp-Hrs*	*Hours/ Day*	*Daily Hp-Hrs*	*Work Days*	*Total Hp-Hrs*
Upgrade Existing Wharf (10)								
Crane - 220-Ton Manitowoc 888	330	0.50	1	165	8	1,320	46	60,720
Compressor	50	0.60	1	30	8	240	4	960
Concrete Boom Pump	57	0.50	1	29	2	228	4	912
Concrete Trucks (2)	NA	NA	15	NA	143	2,138	4	8,550
Excavator w/ Ram -Komatso PC 220 LC5	157	0.60	1	94	8	754	30	22,608
Forklift - Cat 200	125	0.50	1	63	4	250	46	11,500
Generator	45	0.75	1	34	8	270	8	2,160
Loader - Cat 966E	220	0.50	1	110	8	880	5	4,400
Material Truck	NA	NA	15	NA	4	60	46	2,760
Install 3 Cranes at Berth ~~144~~ 145								
Crane - 50 ton	330	0.30	2	198	8	1,584	4	6,336
Winch	305	0.50	1	153	4	610	3	1,830
Cargo Ship - Transit - Crane Delivery (3)	NA	NA	1	NA	NA	NA	2	NA
Tugboat - Cargo Vessel Assist	4,106	0.31	1	1,273	1	1,273	2	2,546
Cargo Ship - Hotelling (3)	NA	NA	1	NA	24	NA	4	NA

(10) Equipment usage based upon upgrades to 1,109 feet of wharf at Berths 145-147.

Exhibit B.2: Equipment List for Federal Action

Construction Activity/Equipment Type	HP Rating	Load Factor	No. Active	Hourly HP-Hrs	Hrs/ Day	Daily HP-Hrs	Total HP-Hrs
Wharf Demolition							
AirCompressor	50	0.60	2	60	8	480	4,800
Crane-250-TonManitowoc888	330	0.50	1	165	8	1,320	50,160
DerrickBarge	195	0.50	1	98	8	780	21,840
Excavator-Cat345B	290	0.50	1	145	8	1,160	11,600
Forklift	105	0.50	1	53	6	315	3,150
Generator	45	0.75	1	34	8	270	2,700
HaulTruck-DemolishedMaterials	NA	NA	6	NA	8	48	443
Loader-Cat966E	220	0.50	1	110	8	880	33,440
Tugboat	1,200	0.25	1	300	2	600	16,800
VibratoryHammer	45	0.60	1	27	4	108	3,024
Remove 2 Existing Cranes at Berth 145							
Crane-50ton	330	0.30	2	198.00	8	1584.00	6336.00
Winch	305	0.50	1	153.00	4	610.00	2440.00
Tugboat1	1200	0.25	1	300	8	2400	4800
Tugboat2	1200	0.68	1	816.00	1	816.00	816.00
Piledriving - Sheet Piles							
DerrickBargeCraneHoist	564	0.25	1	141	4	564	49,068
Generator-PileHammer	190	0.6	1	114	4	456	39,672
Tugboat	1,200	0.25	1	300	1	300	26,100
HaulTrucks-PileDeliveries	NA	NA	4	NA	8	32	928
Rip-Rap Placement							
Barge-Generator1	90	0.60	1	54	10	540	21,870
Barge-Generator2	229	0.60	1	137	10	1,374	55,647
Barge-DeckWinch	120	0.50	1	60	10	600	24,300
Barge-MainHoist	335	0.50	1	168	10	1,675	67,838
TrackedLoader-Cat973	210	0.50	1	105	10	1,050	42,525
Tugboat-Generator	89	0.43	2	77	18	1,378	55,798
Tugboat-MainEngines	850	0.68	2	1,156	7	8,092	327,726
Dredge and Disposal							
ElectricClamshellBucket	564	0.50	1	282	24	6,768	597,840
DerrickBarge-Electric	432	0.60	1	259	24	6,221	549,504
DerrickBarge-Generator 2	135	0.60	1	81	6	486	42,930
HaulTrucks	NA	NA	0.5	NA	200	100	3,300
Loader-962G	200	0.50	1	100	16	1,600	141,333
TugBoat-TransportBargetoBerth205	1,350	0.68	2	1,836	0.8	1,469	52,877
TugBoat-TransportBargetoOceanSite	1,350	0.68	2	1,836	3.36	6,169	222,083
Piledriving - Waterside Piles							
DerrickBarge-CraneHoist	564	0.25	1	141	4	564	18,612
Generator-PileHammer	190	0.60	1	114	8	912	30,096
HaulTrucks-PileDeliveries	NA	NA	4	NA	8	32	352
JetPump	290	0.60	1	174	8	1,392	45,936
Tugboat	1,200	0.25	1	300	1	300	9,900
Piledriving - LandsidePiles							
Crane-250-TonManitowoc888	330	0.50	1	165	8	1,320	71,280
Forklift	105	0.50	1	53	8	420	22,680
Generator-PileHammer	190	0.60	1	114	8	912	49,248
JetPump	290	0.60	1	174	8	1,392	75,168
HaulTrucks-PileDeliveries	NA	NA	4	NA	8	32	544
Replace Existing Wharf							
AirCompressor-185CFM	70	0.60	2	84	8	672	107,520
AirCompressor-750CFM	300	0.60	1	180	8	1,440	230,400
ConcreteBoomPump	57	0.50	1	29	8	228	1,368
Concrete Trucks	NA	NA	15	NA	182	2,730	16,380
Crane-250-TonManitowoc888	330	0.50	1	165	8	1,320	105,600
Crane-Manitowoc5300	350	0.50	1	175	8	1,400	74,200
Crew Boat	240	0.25	1	60	4	240	720
Forklift-Cat200	125	0.50	3	188	6	1,125	180,000
Generator	45	0.75	1	34	8	270	3,510
HaulTrucks-MaterialDeliveries	NA	NA	15	NA	5	75	9,000

Exhibit B.2: Equipment List for Federal Action

Construction Activity/Equipment Type	HP Rating	Load Factor	No. Active	Hourly HP-Hrs	Hrs/ Day	Daily HP-Hrs	Total HP-Hrs
Loader-Cat966E	220	0.50	1	110	6	660	5,940
Upgrade Existing Wharf							
Crane-220-TonManitowoc888	330	0.50	1	165	8	1,320	60,720
Compressor	50	0.60	1	30	8	240	960
ConcreteBoomPump	57	0.50	1	29	2	57	228
Concrete Trucks	NA	NA	15	NA	143	2138	8,550
Excavator/Ram-KomatsoPC220LC5	157	0.60	1	94	8	754	22,608
Forklift-Cat200	125	0.50	1	63	4	250	11,500
Generator	45	0.75	1	34	8	270	2,160
Loader-Cat966E	220	0.50	1	110	8	880	4,400
MaterialTruck	NA	NA	15	NA	4	60	2,760
Install 3 Cranes at Berth 145							
Crane-50ton	330	0.30	2	198	8	1,584	6,336
Winch	305	0.50	1	153	4	610	1,830
CargoShip-Transit-CraneDelivery	NA	NA	1	NA	NA	NA	NA
Tugboat-CargoVesselAssist	4,106	0.31	1	1273	1	1273	2,546
CargoShip-Hotelling	NA	NA	1	NA	24	NA	NA

**Equipment parameters obtained from Berths 136-137 Container Terminal Draft Environmental Impact Statement (EIS)/ Environmental Impact Report (EIR), except as noted in Exhibit B1*

Exhibit C.1: Hourly Federal Action Construction Emissions (Based on CEQA Mitigation)

			Equipment Emissions (lbs/hr)					
Construction Activity/Equipment Type	**No. Units**	**HP**	**ROG**	**CO**	**NOx**	**SOx**	**PM10**	**PM2.5**
Wharf Demolition								
AirCompressor	2	50	0.07	0.31	0.60	0.00	0.05	0.05
Crane-250-TonManitowoc888	1	330	0.09	0.33	1.80	0.00	0.04	0.04
DerrickBarge	1	195	0.05	0.20	1.07	0.00	0.03	0.02
Excavator-Cat345B	1	290	0.08	0.29	1.58	0.00	0.04	0.04
Forklift	1	105	0.07	0.37	0.65	0.00	0.05	0.04
Generator	1	45	0.04	0.17	0.34	0.00	0.03	0.03
HaulTruck-DemolishedMaterials	6	NA						
Loader-Cat966E	1	220	0.06	0.22	1.21	0.00	0.03	0.03
Tugboat	1	1200	0.24	0.54	6.51	0.01	0.34	0.32
VibratoryHammer	1	45	0.03	0.14	0.27	0.00	0.02	0.02
Remove 2 Existing Cranes at Berth 145								
Crane-50ton	2	330	0.10	0.40	2.16	0.00	0.05	0.05
Winch	1	305	0.08	0.31	1.67	0.00	0.04	0.04
Tugboat1	1	1200	0.24	0.54	6.51	0.01	0.34	0.32
Tugboat2	1	1200	0.67	1.48	17.72	0.02	0.92	0.86
Piledriving - Sheet Piles								
DerrickBargeCraneHoist	1	564	0.07	0.29	1.54	0.00	0.04	0.03
Generator-PileHammer	1	190	0.06	0.23	1.26	0.00	0.03	0.03
Tugboat	1	1200	0.24	0.54	6.51	0.01	0.34	0.32
HaulTrucks-PileDeliveries	4	NA						
Rip-Rap Placement								
Barge-Generator1	1	90	0.07	0.38	0.67	0.00	0.05	0.04
Barge-Generator2	1	229	0.07	0.28	1.51	0.00	0.04	0.03
Barge-DeckWinch	1	120	0.08	0.43	0.75	0.00	0.05	0.05
Barge-MainHoist	1	335	0.09	0.34	1.83	0.00	0.04	0.04
TrackedLoader-Cat973	1	210	0.06	0.21	1.16	0.00	0.03	0.03
Tugboat-Generator	2	89	0.10	0.55	0.95	0.00	0.07	0.06
Tugboat-MainEngines	2	850	0.94	2.09	25.10	0.03	1.30	1.22
Dredge and Disposal								
ElectricClamshellBucket	1	564						
DerrickBarge-Electric	1	432						
DerrickBarge-Generator 2	1	135	0.08	0.48	0.94	0.00	0.04	0.04
HaulTrucks	0.5	NA						
Loader-962G	1	200	0.05	0.20	1.10	0.00	0.03	0.02
TugBoat-TransportBargetoBerth205	2	1350	1.50	3.32	39.87	0.04	2.06	1.94
TugBoat-TransportBargetoOceanSite	2	1350	1.50	3.32	39.87	0.04	2.06	1.94
Piledriving - Waterside Piles								
DerrickBarge-CraneHoist	1	564	0.07	0.29	1.54	0.00	0.04	0.03
Generator-PileHammer	1	190	0.06	0.23	1.26	0.00	0.03	0.03
HaulTrucks-PileDeliveries	4	NA						
JetPump	1	290	0.09	0.35	1.90	0.00	0.05	0.04
Tugboat	1	1200	0.24	0.54	6.51	0.01	0.34	0.32
Piledriving - LandsidePiles								
Crane-250-TonManitowoc888	1	330	0.09	0.33	1.80	0.00	0.04	0.04
Forklift	1	105	0.07	0.37	0.65	0.00	0.05	0.04
Generator-PileHammer	1	190	0.06	0.23	1.26	0.00	0.03	0.03
JetPump	1	290	0.09	0.35	1.90	0.00	0.05	0.04
HaulTrucks-PileDeliveries	4	NA						
Replace Existing Wharf								
AirCompressor-185CFM	2	70	0.11	0.60	1.04	0.00	0.07	0.07
AirCompressor-750CFM	1	300	0.10	0.37	1.96	0.00	0.05	0.04
ConcreteBoomPump	1	57	0.04	0.20	0.35	0.00	0.02	0.02
Concrete Trucks	15	NA						
Crane-250-TonManitowoc888	1	330	0.09	0.33	1.80	0.00	0.04	0.04
Crane-Manitowoc5300	1	350	0.09	0.35	1.91	0.00	0.05	0.04
Crew Boat	1	240	0.03	0.12	0.66	0.00	0.02	0.01
Forklift-Cat200	3	125	0.17	1.12	2.17	0.00	0.10	0.09
Generator	1	45	0.04	0.17	0.34	0.00	0.03	0.03
HaulTrucks-MaterialDeliveries	15	NA						
Loader-Cat966E	1	220	0.06	0.22	1.21	0.00	0.03	0.03

Exhibit C.1: Hourly Federal Action Construction Emissions (Based on CEQA Mitigation)

			Equipment Emissions (lbs/hr)					
Construction Activity/Equipment Type	**No. Units**	**HP**	**ROG**	**CO**	**NOx**	**SOx**	**PM10**	**PM2.5**
Upgrade Existing Wharf								
Crane-220-TonManitowoc888	1	330	0.09	0.33	1.80	0.00	0.04	0.04
Compressor	1	50	0.04	0.15	0.30	0.00	0.03	0.02
ConcreteBoomPump	1	57	0.04	0.20	0.35	0.00	0.02	0.02
Concrete Trucks	15	NA						
Excavator/Ram-KomatsoPC220LC5	1	157	0.09	0.56	1.09	0.00	0.05	0.05
Forklift-Cat200	1	125	0.06	0.37	0.72	0.00	0.03	0.03
Generator	1	45	0.04	0.17	0.34	0.00	0.03	0.03
Loader-Cat966E	1	220	0.06	0.22	1.21	0.00	0.03	0.03
MaterialTruck	15	NA						
Install 3 Cranes at Berth 145								
Crane-50ton	2	330	0.10	0.40	2.16	0.00	0.05	0.05
Winch	1	305	0.08	0.31	1.67	0.00	0.04	0.04
CargoShip-Transit-CraneDelivery	1	NA						
Tugboat-CargoVesselAssist	1	4106	1.04	2.30	27.64	0.03	1.43	1.35
CargoShip-Hotelling	1	NA						

**Material Trucks and Haul Trucks do not require a lbs/hr calculation*

***CargoShip emissions taken from orginal POLA Berths 136-137 Container Terminal Draft Environmental Impact Statement (EIS)/ Environmental Impact Report (EIR)*

Exhibit C.2: Daily Federal Action Construction Emissions (Based on CEQA Mitigation)

	Daily Emissions (lbs/day)					
Construction Activity/Equipment Type	**ROG**	**CO**	**NOx**	**SOx**	**PM10**	**PM2.5**
B145-147						
Phase 1						
Wharf Demolition						
AirCompressor	0.6	2.5	4.8	0.0	0.4	0.4
Crane-220-TonManitowoc888	0.7	2.7	14.4	0.0	0.3	0.3
DerrickBarge	0.4	1.6	8.6	0.0	0.2	0.2
Excavator-Cat345B	0.6	2.4	12.7	0.0	0.3	0.3
Forklift	0.4	2.2	3.9	0.0	0.3	0.3
Generator	0.3	1.4	2.7	0.0	0.2	0.2
HaulTruck-DemolishedMaterials	0.1	0.3	1.3	0.0	0.0	0.0
Loader-Cat966E	0.5	1.8	9.7	0.0	0.2	0.2
Tugboat	0.5	1.1	13.0	0.0	0.7	0.6
VibratoryHammer	0.1	0.6	1.1	0.0	0.1	0.1
Remove 2 Existing Cranes at Berth 145						
Crane-50ton	0.1	0.4	2.2	0.0	0.1	0.0
Winch	0.1	0.3	1.7	0.0	0.0	0.0
Tugboat1	0.2	0.5	6.5	0.0	0.3	0.3
Tugboat2	0.7	1.5	17.7	0.0	0.9	0.9
Pile Driving - Row A/retrofit (101)						
DerrickBarge-CraneHoist	0.3	1.1	6.2	0.0	0.1	0.1
Generator-PileHammer	0.5	1.8	10.1	0.0	0.2	0.2
HaulTrucks-PileDeliveries	0.1	0.2	0.9	0.0	0.0	0.0
JetPump	0.7	2.8	15.2	0.0	0.4	0.3
Tugboat	0.2	0.5	6.5	0.0	0.3	0.3
Sheet Pile Wall						
DerrickBargeCraneHoist	0.3	1.1	6.2	0.0	0.1	0.1
Generator-PileHammer	0.2	0.9	5.0	0.0	0.1	0.1
Tugboat	0.2	0.5	6.5	0.0	0.3	0.3
HaulTrucks-PileDeliveries	0.1	0.2	0.9	0.0	0.0	0.0
Electric Dredging						
ElectricClamshellBucket	-	-	-	-	-	-
DerrickBarge-Electric	-	-	-	-	-	-
DerrickBarge-Generator	0.5	2.9	5.6	0.0	0.3	0.2
HaulTrucks	0.2	0.6	2.8	0.0	0.1	0.1
Loader-962G	0.8	3.2	17.6	0.0	0.4	0.4
TugBoat-TransportBargetoBerth205	1.2	2.7	31.9	0.0	1.7	1.6
TugBoat-TransportBargetoOceanSite	5.0	11.2	134.0	0.1	6.9	6.5
Rock						
Barge-Generator1	0.7	3.8	6.7	0.0	0.5	0.4
Barge-Generator2	0.7	2.8	15.1	0.0	0.4	0.3
Barge-DeckWinch	0.8	4.3	7.5	0.0	0.5	0.5
Barge-MainHoist	0.9	3.4	18.3	0.0	0.4	0.4
TrackedLoader-Cat973	0.6	2.1	11.6	0.0	0.3	0.3
Tugboat-Generator	1.8	9.8	17.1	0.0	1.2	1.1
Tugboat-MainEngines	6.6	14.6	175.7	0.2	9.1	8.6
Pile Driving - Including Landside						
Crane-220-TonManitowoc888	0.7	2.7	14.4	0.0	0.3	0.3
Forklift	0.5	3.0	5.2	0.0	0.4	0.3
Generator-PileHammer	0.5	1.8	10.1	0.0	0.2	0.2
JetPump	0.7	2.8	15.2	0.0	0.4	0.3
HaulTrucks-PileDeliveries	0.1	0.2	0.9	0.0	0.0	0.0

Exhibit C.2: Daily Federal Action Construction Emissions (Based on CEQA Mitigation)

	Daily Emissions (lbs/day)					
Construction Activity/Equipment Type	**ROG**	**CO**	**NOx**	**SOx**	**PM10**	**PM2.5**
Wharf Deck						
AirCompressor-185CFM	0.9	4.8	8.4	0.0	0.6	0.5
AirCompressor-750CFM	0.8	2.9	15.7	0.0	0.4	0.3
ConcreteBoomPump	0.3	1.6	2.8	0.0	0.2	0.2
Concrete Trucks	0.5	1.6	7.2	0.0	0.3	0.2
Crane-220-TonManitowoc888	0.7	2.7	14.4	0.0	0.3	0.3
Crane-Manitowoc4000	0.7	2.8	15.3	0.0	0.4	0.3
Crew Boat	0.1	0.5	2.6	0.0	0.1	0.1
Forklift-Cat200	1.0	6.7	13.0	0.0	0.6	0.5
Generator	0.3	1.4	2.7	0.0	0.2	0.2
HaulTrucks-MaterialDeliveries	0.1	0.5	2.1	0.0	0.1	0.1
Loader-Cat966E	0.3	1.3	7.3	0.0	0.2	0.2
Phase 2						
Wharf Demolition						
AirCompressor	0.6	2.5	4.8	0.0	0.4	0.4
Crane-220-TonManitowoc888	0.7	2.7	14.4	0.0	0.3	0.3
DerrickBarge	0.4	1.6	8.6	0.0	0.2	0.2
Excavator-Cat345B	0.6	2.4	12.7	0.0	0.3	0.3
Forklift	0.4	2.2	3.9	0.0	0.3	0.3
Generator	0.3	1.4	2.7	0.0	0.2	0.2
HaulTruck-DemolishedMaterials	0.1	0.3	1.3	0.0	0.0	0.0
Loader-Cat966E	0.5	1.8	9.7	0.0	0.2	0.2
Tugboat	0.5	1.1	13.0	0.0	0.7	0.6
VibratoryHammer	0.1	0.6	1.1	0.0	0.1	0.1
Waterside Crane Girder						
Crane-220-TonManitowoc888	0.7	2.7	14.4	0.0	0.3	0.3
Compressor	0.3	1.2	2.4	0.0	0.2	0.2
ConcreteBoomPump	0.1	0.4	0.7	0.0	0.0	0.0
Concrete Trucks	4.0	13.3	59.0	0.1	2.2	2.0
Excavator/Ram-KomatsoPC220LC5	0.7	4.5	8.7	0.0	0.4	0.4
Forklift-Cat200	0.2	1.5	2.9	0.0	0.1	0.1
Generator	0.3	1.4	2.7	0.0	0.2	0.2
Loader-Cat966E	0.5	1.8	9.7	0.0	0.2	0.2
MaterialTruck	0.1	0.4	1.7	0.0	0.1	0.1
Pile Driving/Landside						
Crane-220-TonManitowoc888	0.7	2.7	14.4	0.0	0.3	0.3
Forklift	0.5	3.0	5.2	0.0	0.4	0.3
Generator-PileHammer	0.5	1.8	10.1	0.0	0.2	0.2
JetPump	0.7	2.8	15.2	0.0	0.4	0.3
HaulTrucks-PileDeliveries	0.1	0.2	0.9	0.0	0.0	0.0
Install 3 Cranes at Berth 145						
Crane-50ton	0.8	3.2	17.3	0.0	0.4	0.4
Winch	0.3	1.2	6.7	0.0	0.2	0.1
CargoShip-Transit-CraneDelivery	28.0	62.4	751.2	408.7	60.8	57.0
Tugboat-CargoVesselAssist	1.0	2.3	27.6	0.0	1.4	1.3
CargoShip-Hotelling	5.7	19.1	200.3	131.1	11.4	10.6

Exhibit C.2: Daily Federal Action Construction Emissions (Based on CEQA Mitigation)

	Daily Emissions (lbs/day)					
Construction Activity/Equipment Type	**ROG**	**CO**	**NOx**	**SOx**	**PM10**	**PM2.5**
B136-139						
Wharf Demolition						
AirCompressor	0.6	2.5	4.8	0.0	0.4	0.4
Crane-220-TonManitowoc888	0.7	2.7	14.4	0.0	0.3	0.3
DerrickBarge	0.4	1.6	8.6	0.0	0.2	0.2
Excavator-Cat345B	0.6	2.4	12.7	0.0	0.3	0.3
Forklift	0.4	2.2	3.9	0.0	0.3	0.3
Generator	0.3	1.4	2.7	0.0	0.2	0.2
HaulTruck-DemolishedMaterials	0.1	0.3	1.3	0.0	0.0	0.0
Loader-Cat966E	0.5	1.8	9.7	0.0	0.2	0.2
Tugboat	0.5	1.1	13.0	0.0	0.7	0.6
VibratoryHammer	0.1	0.6	1.1	0.0	0.1	0.1
Sheet Pile Wall						
DerrickBargeCraneHoist	0.3	1.1	6.2	0.0	0.1	0.1
Generator-PileHammer	0.2	0.9	5.0	0.0	0.1	0.1
Tugboat	0.2	0.5	6.5	0.0	0.3	0.3
HaulTrucks-PileDeliveries	0.1	0.2	0.9	0.0	0.0	0.0
Electric Dredging						
ElectricClamshellBucket	-	-	-	-	-	-
DerrickBarge-Electric	-	-	-	-	-	-
DerrickBarge-Generator	0.5	2.9	5.6	0.0	0.3	0.2
HaulTrucks	0.2	0.6	2.8	0.0	0.1	0.1
Loader-962G	0.8	3.2	17.6	0.0	0.4	0.4
TugBoat-TransportBargetoBerth205	1.2	2.7	31.9	0.0	1.7	1.6
TugBoat-TransportBargetoOceanSite	5.0	11.2	134.0	0.1	6.9	6.5
Rock						
Barge-Generator1	0.7	3.8	6.7	0.0	0.5	0.4
Barge-Generator2	0.7	2.8	15.1	0.0	0.4	0.3
Barge-DeckWinch	0.8	4.3	7.5	0.0	0.5	0.5
Barge-MainHoist	0.9	3.4	18.3	0.0	0.4	0.4
TrackedLoader-Cat973	0.6	2.1	11.6	0.0	0.3	0.3
Tugboat-Generator	1.8	9.8	17.1	0.0	1.2	1.1
Tugboat-MainEngines	6.6	14.6	175.7	0.2	9.1	8.6
Pile Driving - Including Landside						
Crane-220-TonManitowoc888	0.7	2.7	14.4	0.0	0.3	0.3
Forklift	0.5	3.0	5.2	0.0	0.4	0.3
Generator-PileHammer	0.5	1.8	10.1	0.0	0.2	0.2
JetPump	0.7	2.8	15.2	0.0	0.4	0.3
HaulTrucks-PileDeliveries	0.1	0.2	0.9	0.0	0.0	0.0
Wharf Deck						
AirCompressor-185CFM	0.9	4.8	8.4	0.0	0.6	0.5
AirCompressor-750CFM	0.8	2.9	15.7	0.0	0.4	0.3
ConcreteBoomPump	0.3	1.6	2.8	0.0	0.2	0.2
Concrete Trucks	0.5	1.6	7.2	0.0	0.3	0.2
Crane-220-TonManitowoc888	0.7	2.7	14.4	0.0	0.3	0.3
Crane-Manitowoc4000	0.7	2.8	15.3	0.0	0.4	0.3
Crew Boat	0.1	0.5	2.6	0.0	0.1	0.1
Forklift-Cat200	1.0	6.7	13.0	0.0	0.6	0.5
Generator	0.3	1.4	2.7	0.0	0.2	0.2
HaulTrucks-MaterialDeliveries	0.1	0.5	2.1	0.0	0.1	0.1
Loader-Cat966E	0.3	1.3	7.3	0.0	0.2	0.2

Holidays are assumed to be 5 days per year
Electric dredging runs on a 6 day/week schedule, all other activities are 5 days/week

Exhibit C.3: Total Federal Action Construction Emissions (Based on CEQA Mitigation)

Construction Activity/Equipment Type	Days		Project Total Emissions (tons) ROG	CO	NOx	SOx	PM10	PM2.5
B145-147	*Revised*							
Phase 1								
Wharf Demolition	105							
AirCompressor	28		0.008	0.035	0.068	0.000	0.006	0.005
Crane-220-TonManitowoc888	105		0.037	0.141	0.756	0.001	0.018	0.017
DerrickBarge	77		0.016	0.061	0.331	0.000	0.008	0.007
Excavator-Cat345B	28		0.009	0.033	0.177	0.000	0.004	0.004
Forklift	28		0.006	0.031	0.055	0.000	0.004	0.004
Generator	28		0.005	0.020	0.038	0.000	0.003	0.003
HaulTruck-DemolishedMaterials	26		0.001	0.004	0.017	0.000	0.001	0.001
Loader-Cat966E	105		0.024	0.094	0.509	0.001	0.012	0.011
Tugboat	77		0.019	0.042	0.502	0.001	0.026	0.024
VibratoryHammer	77		0.005	0.021	0.042	0.000	0.003	0.003
Remove 2 Existing Cranes at Berth 145	4							
Crane-50ton	4		0.000	0.001	0.004	0.000	0.000	0.000
Winch	4		0.000	0.001	0.003	0.000	0.000	0.000
Tugboat1	2		0.000	0.001	0.007	0.000	0.000	0.000
Tugboat2	1		0.000	0.001	0.009	0.000	0.000	0.000
Pile Driving - Row A/retrofit (101)	15							
DerrickBarge-CraneHoist	15		0.002	0.009	0.046	0.000	0.001	0.001
Generator-PileHammer	15		0.004	0.014	0.075	0.000	0.002	0.002
HaulTrucks-PileDeliveries	5		0.000	0.000	0.002	0.000	0.000	0.000
JetPump	15		0.006	0.021	0.114	0.000	0.003	0.003
Tugboat	15		0.002	0.004	0.049	0.000	0.003	0.002
Sheet Pile Wall	105							
DerrickBargeCraneHoist	105		0.016	0.060	0.323	0.000	0.008	0.007
Generator-PileHammer	105		0.013	0.049	0.264	0.000	0.006	0.006
Tugboat	105		0.013	0.028	0.342	0.000	0.018	0.017
HaulTrucks-PileDeliveries	35		0.001	0.003	0.015	0.000	0.001	0.001
Electric Dredging	152							
ElectricClamshellBucket	152		-	-	-	-	-	-
DerrickBarge-Electric	152		-	-	-	-	-	-
DerrickBarge-Generator	152		0.034	0.220	0.428	0.000	0.020	0.018
HaulTrucks	33		0.003	0.010	0.046	0.000	0.002	0.002
Loader-962G	152		0.064	0.247	1.340	0.002	0.032	0.029
TugBoat-TransportBargetoBerth205	36		0.022	0.048	0.574	0.001	0.030	0.028
TugBoat-TransportBargetoOceanSite	36		0.091	0.201	2.411	0.002	0.125	0.118
Rock	84							
Barge-Generator1	84		0.029	0.162	0.282	0.000	0.020	0.018
Barge-Generator2	84		0.031	0.117	0.636	0.001	0.015	0.014
Barge-DeckWinch	84		0.032	0.179	0.313	0.000	0.022	0.020
Barge-MainHoist	84		0.037	0.143	0.768	0.001	0.019	0.017
TrackedLoader-Cat973	84		0.023	0.089	0.486	0.001	0.012	0.011
Tugboat-Generator	84		0.074	0.412	0.719	0.001	0.050	0.046
Tugboat-MainEngines	84		0.277	0.614	7.380	0.007	0.382	0.360
Pile Driving - Including Landside	84							
Crane-220-TonManitowoc888	84		0.029	0.112	0.605	0.001	0.015	0.013
Forklift	84		0.023	0.126	0.219	0.000	0.015	0.014
Generator-PileHammer	84		0.020	0.078	0.422	0.001	0.010	0.009
JetPump	84		0.031	0.119	0.638	0.001	0.015	0.014
HaulTrucks-PileDeliveries	26		0.001	0.003	0.011	0.000	0.000	0.000

Exhibit C.3: Total Federal Action Construction Emissions (Based on CEQA Mitigation)

Construction Activity/Equipment Type	Days	Project Total Emissions (tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
Wharf Deck	126						
AirCompressor-185CFM	126	0.054	0.301	0.526	0.001	0.036	0.034
AirCompressor-750CFM	126	0.048	0.184	0.990	0.001	0.024	0.022
ConcreteBoomPump	15	0.002	0.012	0.021	0.000	0.001	0.001
Concrete Trucks	15	0.004	0.012	0.054	0.000	0.002	0.002
Crane-220-TonManitowoc888	63	0.022	0.084	0.454	0.000	0.011	0.010
Crane-Manitowoc4000	42	0.016	0.060	0.321	0.000	0.008	0.007
Crew Boat	2	0.000	0.000	0.003	0.000	0.000	0.000
Forklift-Cat200	126	0.066	0.422	0.822	0.001	0.038	0.034
Generator	10	0.002	0.007	0.014	0.000	0.001	0.001
HaulTrucks-MaterialDeliveries	95	0.007	0.022	0.098	0.000	0.004	0.003
Loader-Cat966E	7	0.001	0.005	0.025	0.000	0.001	0.001
Phase 2							
Wharf Demolition	42						
AirCompressor	11	0.003	0.014	0.027	0.000	0.002	0.002
Crane-220-TonManitowoc888	42	0.015	0.056	0.303	0.000	0.007	0.007
DerrickBarge	31	0.006	0.025	0.133	0.000	0.003	0.003
Excavator-Cat345B	11	0.003	0.013	0.070	0.000	0.002	0.002
Forklift	11	0.002	0.012	0.022	0.000	0.001	0.001
Generator	11	0.002	0.008	0.015	0.000	0.001	0.001
HaulTruck-DemolishedMaterials	10	0.000	0.001	0.007	0.000	0.000	0.000
Loader-Cat966E	42	0.010	0.037	0.204	0.000	0.005	0.004
Tugboat	31	0.008	0.017	0.202	0.000	0.010	0.010
VibratoryHammer	31	0.002	0.009	0.017	0.000	0.001	0.001
Waterside Crane Girder	42						
Crane-220-TonManitowoc888	42	0.015	0.056	0.303	0.000	0.007	0.007
Compressor	4	0.001	0.002	0.005	0.000	0.000	0.000
ConcreteBoomPump	4	0.000	0.001	0.001	0.000	0.000	0.000
Concrete Trucks	4	0.008	0.027	0.118	0.000	0.004	0.004
Excavator/Ram-KomatsoPC220LC5	27	0.009	0.061	0.118	0.000	0.005	0.005
Forklift-Cat200	42	0.005	0.031	0.061	0.000	0.003	0.003
Generator	7	0.001	0.005	0.010	0.000	0.001	0.001
Loader-Cat966E	5	0.001	0.004	0.024	0.000	0.001	0.001
MaterialTruck	42	0.002	0.008	0.035	0.000	0.001	0.001
Pile Driving/Landside	21						
Crane-220-TonManitowoc888	21	0.007	0.028	0.151	0.000	0.004	0.003
Forklift	21	0.006	0.031	0.055	0.000	0.004	0.004
Generator-PileHammer	21	0.005	0.019	0.106	0.000	0.003	0.002
JetPump	21	0.008	0.030	0.160	0.000	0.004	0.004
HaulTrucks-PileDeliveries	7	0.000	0.001	0.003	0.000	0.000	0.000
Install 3 Cranes at Berth 145	4						
Crane-50ton	4	0.002	0.006	0.035	0.000	0.001	0.001
Winch	3	0.000	0.002	0.010	0.000	0.000	0.000
CargoShip-Transit-CraneDelivery	2	0.028	0.062	0.751	0.409	0.061	0.057
Tugboat-CargoVesselAssist	2	0.001	0.002	0.028	0.000	0.001	0.001
CargoShip-Hotelling	4	0.011	0.038	0.401	0.262	0.023	0.021

Exhibit C.3: Total Federal Action Construction Emissions (Based on CEQA Mitigation)

Construction Activity/Equipment Type	Days	Project Total Emissions (tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
B136-139							
Wharf Demolition	105						
AirCompressor	28	0.008	0.035	0.068	0.000	0.006	0.005
Crane-220-TonManitowoc888	105	0.037	0.141	0.756	0.001	0.018	0.017
DerrickBarge	77	0.016	0.061	0.331	0.000	0.008	0.007
Excavator-Cat345B	28	0.009	0.033	0.177	0.000	0.004	0.004
Forklift	28	0.006	0.031	0.055	0.000	0.004	0.004
Generator	28	0.005	0.020	0.038	0.000	0.003	0.003
HaulTruck-DemolishedMaterials	26	0.001	0.004	0.017	0.000	0.001	0.001
Loader-Cat966E	105	0.024	0.094	0.509	0.001	0.012	0.011
Tugboat	77	0.019	0.042	0.502	0.001	0.026	0.024
VibratoryHammer	77	0.005	0.021	0.042	0.000	0.003	0.003
Sheet Pile Wall	126						
DerrickBargeCraneHoist	126	0.019	0.072	0.388	0.000	0.009	0.009
Generator-PileHammer	126	0.015	0.058	0.317	0.000	0.008	0.007
Tugboat	126	0.015	0.034	0.410	0.000	0.021	0.020
HaulTrucks-PileDeliveries	42	0.001	0.004	0.019	0.000	0.001	0.001
Electric Dredging	126						
ElectricClamshellBucket	126	-	-	-	-	-	-
DerrickBarge-Electric	126	-	-	-	-	-	-
DerrickBarge-Generator	126	0.028	0.182	0.355	0.000	0.016	0.015
HaulTrucks	33	0.003	0.010	0.046	0.000	0.002	0.002
Loader-962G	126	0.053	0.204	1.111	0.001	0.027	0.024
TugBoat-TransportBargetoBerth205	36	0.022	0.048	0.574	0.001	0.030	0.028
TugBoat-TransportBargetoOceanSite	36	0.091	0.201	2.411	0.002	0.125	0.118
Rock	84						
Barge-Generator1	84	0.029	0.162	0.282	0.000	0.020	0.018
Barge-Generator2	84	0.031	0.117	0.636	0.001	0.015	0.014
Barge-DeckWinch	84	0.032	0.179	0.313	0.000	0.022	0.020
Barge-MainHoist	84	0.037	0.143	0.768	0.001	0.019	0.017
TrackedLoader-Cat973	84	0.023	0.089	0.486	0.001	0.012	0.011
Tugboat-Generator	84	0.074	0.412	0.719	0.001	0.050	0.046
Tugboat-MainEngines	84	0.277	0.614	7.380	0.007	0.382	0.360
Pile Driving - Including Landside	84						
Crane-220-TonManitowoc888	84	0.029	0.112	0.605	0.001	0.015	0.013
Forklift	84	0.023	0.126	0.219	0.000	0.015	0.014
Generator-PileHammer	84	0.020	0.078	0.422	0.001	0.010	0.009
JetPump	84	0.031	0.119	0.638	0.001	0.015	0.014
HaulTrucks-PileDeliveries	26	0.001	0.003	0.011	0.000	0.000	0.000
Wharf Deck	126						
AirCompressor-185CFM	126	0.054	0.301	0.526	0.001	0.036	0.034
AirCompressor-750CFM	126	0.048	0.184	0.990	0.001	0.024	0.022
ConcreteBoomPump	15	0.002	0.012	0.021	0.000	0.001	0.001
Concrete Trucks	15	0.004	0.012	0.054	0.000	0.002	0.002
Crane-220-TonManitowoc888	63	0.022	0.084	0.454	0.000	0.011	0.010
Crane-Manitowoc4000	42	0.016	0.060	0.321	0.000	0.008	0.007
Crew Boat	2	0.000	0.000	0.003	0.000	0.000	0.000
Forklift-Cat200	126	0.066	0.422	0.822	0.001	0.038	0.034
Generator	10	0.002	0.007	0.014	0.000	0.001	0.001
HaulTrucks-MaterialDeliveries	95	0.007	0.022	0.098	0.000	0.004	0.003
Loader-Cat966E	7	0.001	0.005	0.025	0.000	0.001	0.001
Total Project Emissions (tons)		**2.60**	**9.83**	**51.66**	**0.72**	**2.22**	**2.06**

Exhibit C.4: Yearly Federal Action NOx Construction Emissions (Based on CEQA Mitigation)

	Yearly NOx Emissions (tons/year) by Activity & Equipment								
Construction Activity/Equipment Type	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
B145-147									
Phase 1									
Wharf Demolition	**(tons/year)**								
AirCompressor	0.014	0.054							
Crane-220-TonManitowoc888	0.151	0.605							
DerrickBarge	0.066	0.265							
Excavator-Cat345B	0.035	0.142							
Forklift	0.011	0.044							
Generator	0.008	0.030							
HaulTruck-DemolishedMaterials	0.003	0.014							
Loader-Cat966E	0.102	0.407							
Tugboat	0.100	0.401							
VibratoryHammer	0.008	0.033							
Remove 2 Existing Cranes at Berth 145									
Crane-50ton		0.004							
Winch		0.003							
Tugboat1		0.006							
Tugboat2		0.008							
Pile Driving - Row A/retrofit (101)									
DerrickBarge-CraneHoist		0.047							
Generator-PileHammer		0.077							
HaulTrucks-PileDeliveries		0.002							
JetPump		0.116							
Tugboat		0.050							
Sheet Pile Wall									
DerrickBargeCraneHoist		0.323							
Generator-PileHammer		0.264							
Tugboat		0.342							
HaulTrucks-PileDeliveries		0.015							
Electric Dredging									
ElectricClamshellBucket		-	-						
DerrickBarge-Electric		-	-						
DerrickBarge-Generator		0.370	0.059						
HaulTrucks		0.039	0.006						
Loader-962G		1.157	0.185						
TugBoat-TransportBargetoBerth205		0.495	0.079						
TugBoat-TransportBargetoOceanSite		2.081	0.334						
Rock									
Barge-Generator1		0.282							
Barge-Generator2		0.636							
Barge-DeckWinch		0.313							
Barge-MainHoist		0.768							
TrackedLoader-Cat973		0.486							
Tugboat-Generator		0.719							
Tugboat-MainEngines		7.380							
Pile Driving - Including Landside									
Crane-220-TonManitowoc888		0.482	0.130						
Forklift		0.175	0.047						
Generator-PileHammer		0.336	0.090						
JetPump		0.508	0.137						
HaulTrucks-PileDeliveries		0.009	0.002						

Exhibit C.4: Yearly Federal Action NOx Construction Emissions (Based on CEQA Mitigation)

	Yearly NOx Emissions (tons/year) by Activity & Equipment								
Construction Activity/Equipment Type	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Wharf Deck									
AirCompressor-185CFM		0.221	0.309						
AirCompressor-750CFM		0.416	0.581						
ConcreteBoomPump		0.009	0.012						
Concrete Trucks		0.023	0.032						
Crane-220-TonManitowoc888		0.191	0.266						
Crane-Manitowoc4000		0.135	0.188						
Crew Boat		0.001	0.002						
Forklift-Cat200		0.345	0.482						
Generator		0.006	0.008						
HaulTrucks-MaterialDeliveries		0.041	0.058						
Loader-Cat966E		0.011	0.015						
Phase 2									
Wharf Demolition									
AirCompressor			0.027						
Crane-220-TonManitowoc888			0.303						
DerrickBarge			0.133						
Excavator-Cat345B			0.070						
Forklift			0.022						
Generator			0.015						
HaulTruck-DemolishedMaterials			0.007						
Loader-Cat966E			0.204						
Tugboat			0.202						
VibratoryHammer			0.017						
Waterside Crane Girder									
Crane-220-TonManitowoc888			0.303						
Compressor			0.005						
ConcreteBoomPump			0.001						
Concrete Trucks			0.118						
Excavator/Ram-KomatsoPC220LC5			0.118						
Forklift-Cat200			0.061						
Generator			0.010						
Loader-Cat966E			0.024						
MaterialTruck			0.035						
Pile Driving/Landside									
Crane-220-TonManitowoc888			0.151						
Forklift			0.055						
Generator-PileHammer			0.106						
JetPump			0.160						
HaulTrucks-PileDeliveries			0.003						
Install 3 Cranes at Berth 145									
Crane-50ton			0.035						
Winch			0.010						
CargoShip-Transit-CraneDelivery			0.751						
Tugboat-CargoVesselAssist			0.028						
CargoShip-Hotelling			0.401						

Exhibit C.4: Yearly Federal Action NOx Construction Emissions (Based on CEQA Mitigation)

	Yearly NOx Emissions (tons/year) by Activity & Equipment								
Construction Activity/Equipment Type	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
B136-139									
Wharf Demolition									
AirCompressor						0.041	0.027		
Crane-220-TonManitowoc888						0.453	0.302		
DerrickBarge						0.198	0.132		
Excavator-Cat345B						0.106	0.071		
Forklift						0.033	0.022		
Generator						0.023	0.015		
HaulTruck-DemolishedMaterials						0.010	0.007		
Loader-Cat966E						0.305	0.204		
Tugboat						0.301	0.200		
VibratoryHammer						0.025	0.017		
Sheet Pile Wall									
DerrickBargeCraneHoist							0.387		
Generator-PileHammer							0.316		
Tugboat							0.410		
HaulTrucks-PileDeliveries							0.019		
Electric Dredging									
ElectricClamshellBucket							-	-	
DerrickBarge-Electric							-	-	
DerrickBarge-Generator							0.237	0.118	
HaulTrucks							0.030	0.015	
Loader-962G							0.740	0.370	
TugBoat-TransportBargetoBerth205							0.382	0.191	
TugBoat-TransportBargetoOceanSite							1.606	0.803	
Rock									
Barge-Generator1								0.282	
Barge-Generator2								0.636	
Barge-DeckWinch								0.313	
Barge-MainHoist								0.767	
TrackedLoader-Cat973								0.486	
Tugboat-Generator								0.719	
Tugboat-MainEngines								7.374	
Pile Driving - Including Landside									
Crane-220-TonManitowoc888								0.605	
Forklift								0.219	
Generator-PileHammer								0.422	
JetPump								0.637	
HaulTrucks-PileDeliveries								0.011	
Wharf Deck									
AirCompressor-185CFM								0.175	0.351
AirCompressor-750CFM								0.330	0.659
ConcreteBoomPump								0.007	0.014
Concrete Trucks								0.018	0.036
Crane-220-TonManitowoc888								0.151	0.302
Crane-Manitowoc4000								0.107	0.214
Crew Boat								0.001	0.002
Forklift-Cat200								0.274	0.547
Generator								0.005	0.009
HaulTrucks-MaterialDeliveries								0.033	0.065
Loader-Cat966E								0.008	0.017
Yearly NOx Emissions (tpy)	**0.50**	**20.89**	**6.39**	**-**	**-**	**1.50**	**5.13**	**15.08**	**2.22**

Attachment B

Southern California Association of Governments Correspondence

SOUTHERN CALIFORNIA

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July 24, 2007

Commander
U.S. Army Corp of Engineers
Los Angeles District,
c/o Dr. Spencer D. Macneil
P. O. Box 53271
Los Angeles, CA 90053-2325

Dr. Ralph Appy
Director of Environmental Management Div.
425 S. Palos Verdes Street
San Pedro, CA 90731

RE: SCAG Clearinghouse No. I 20070405 Berths 136-147 Container Terminal

Dear Dr. Macneil and Dr. Appy:

Thank you for submitting the **Berths 136-147 Container Terminal** for review and comment. As areawide clearinghouse for regionally significant projects, SCAG reviews the consistency of local plans, projects and programs with regional plans. This activity is based on SCAG's responsibilities as a regional planning organization pursuant to state and federal laws and regulations. Guidance provided by these reviews is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of regional goals and policies.

SCAG-1

We have reviewed the **Berths 136-147 Container Terminal**, and have determined that the proposed Project is not regionally significant per SCAG Intergovernmental Review (IGR) Criteria and California Environmental Quality Act (CEQA) Guidelines (Section 15206). Therefore, the proposed Project does not warrant comments at this time. Should there be a change in the scope of the proposed Project, we would appreciate the opportunity to review and comment at that time.

A description of the proposed Project was published in SCAG's **July 1-15, 2007** Intergovernmental Review Clearinghouse Report for public review and comment.

The project title and SCAG Clearinghouse number should be used in all correspondence with SCAG concerning this Project. Correspondence should be sent to the attention of the Clearinghouse Coordinator. If you have any questions, please contact me at (213) 236-1856. Thank you.

SCAG-2

Sincerely,

SHERYLL DEL ROSARIO
Associate Planner
Intergovernmental Review

Doc #138239

ADP NO. 070321-052

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November 5, 2007

Dr. Spencer D. MacNeil, Senior Project Manager
U.S. Army Corps of Engineers, Los Angeles District
P.O. Box 532711
Los Angeles, CA 90053-2325

EIS for Berths 136-147 [TraPac] Container Terminal Project

Dear Dr. MacNeil,

The following is intended to confirm the use of port transportation data in regional transportation and air quality management plans.

The Ports of Los Angeles/Long Beach (POLA/POLB) submit transportation data to the Southern California Association of Governments (SCAG) to account for current and projected port activity. In particular, the POLA/POLB cargo growth is accounted for in the Regional Transportation Plan (RTP) via traffic (truck and auto) volumes provided to SCAG.

The port activity data have been provided to the South Coast Air Quality Management District and incorporated into the recently approved 2007 South Coast Air Quality Management Plan (AQMP), and will also be included in the upcoming 2008 RTP. The Ports' data have been previously incorporated into the 1994, 1998, 2001, and 2004 RTPs and into the corresponding AQMPs.

If you have any questions in regard to this information, please feel free to contact me at (213) 236-1884.

Sincerely,

Jonathan Nadler
Program Manager, Air Quality & Conformity

c: Deng Bang Lee, SCAG
Janna Sidley, POLA
Kerry Cartwright, POLA

Attachment C

USACE Guidance Concerning Implementation of EPA's Clean Air Act General Conformity Rule

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:

20 APR 1994

CECC-E

MEMORANDUM FOR ALL MAJOR SUBORDINATE COMMANDERS, AND DISTRICT COMMANDERS

SUBJECT: EPA's Clean Air Act (CAA) General Conformity Rule

1. In the Federal Register of November 30, 1993, the U.S. Environmental Protection Agency (EPA) published its final General Conformity Rule to implement Section 176(c) of the Clean Air Act (CAA) for geographic areas designated as "nonattainment" and "maintenance" areas under the CAA. EPA's final rule addresses how Federal agencies are to demonstrate that activities in which they engage conform with applicable, Federally-approved CAA state implementation plans. Because these agency conformity determinations can sometimes take considerable time and cost thousands of dollars to produce, and because failure to produce and sign an adequate conformity determination where one is required can create a serious legal vulnerability for a Corps project or permit, the Corps must ensure full and careful compliance with the new EPA Final Rule.

2. The enclosed guidance document has been prepared to assist Corps Divisions and Districts in understanding and complying with the subject rule. This guidance document is introductory in nature, and cannot be considered a substitute for careful reading of and compliance with the rule itself. (See 58 Fed.Reg. 63214 et seq.)

3. One of the primary subjects discussed in the enclosed guidance document is how the General Conformity Rule relates to the Corps regulatory program under Sections 9 and 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Ocean Dumping Act. As soon as practicable I intend to promulgate another guidance document providing more detailed instructions on how Corps personnel should deal with CAA conformity considerations regarding Corps Civil Works projects during the planning process, including preparation of CAA conformity determinations where that is necessary.

4. Although the attached document is rather "legalistic" in nature, it should be broadly distributed within the Corps family (e.g., counsel, regulatory, planning, operations, etc.). This guidance also contains important policy considerations, and thus has been fully coordinated with the Office of the Assistant Secretary of the Army (Civil Works) and with the Director of Civil Works.

5. My points of contact for this guidance are Lance Wood and Bill Sapp, CECC-E; their telephone number is (202) 272-0035.

FOR THE COMMANDER:

Lester Edelman

Encl

LESTER EDELMAN
Chief Counsel

CECC-E

EPA'S FINAL CLEAN AIR ACT GENERAL CONFORMITY RULE

I. INTRODUCTION.

In the Federal Register of November 30, 1993, the U.S. Environmental Protection Agency (EPA) published its final General Conformity Rule[1] to implement section 176(c) of the Clean Air Act (CAA)[2] for geographic areas designated as "nonattainment" and "maintenance" areas under the CAA. EPA's final rule addresses how Federal agencies are to demonstrate that activities in which they engage conform with applicable, Federally approved CAA state implementation plans.[3] Because these agency conformity determinations can sometimes take considerable time and cost thousands of dollars to produce[4], and because failure to produce and sign an adequate conformity determination where one is required can create a serious legal vulnerability for a Corps project or permit, the Corps must ensure full and careful compliance with the new EPA final rule.

EPA's final rule was promulgated to implement CAA section 176(c), which was added to the Clean Air Act in 1977[5] to require that Federal agencies assure that activities they engage in are in conformance with Federally-approved CAA state implementation plans.[6] This requirement is clearly triggered whenever a Federal

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[1] 58 Fed. Reg. 63214 (November 30, 1993).

[2] Clean Air Act § 176(c), 42 U.S.C. § 7506 (1993).

[3] 58 Fed. Reg. 63214 (November 30, 1993). Section 110 of the Clean Air Act requires that all states and the District of Columbia develop state implementation plans for EPA approval that provide detailed accounts of how the state will attain the National Ambient Air Quality Standards throughout the state. 42 U.S.C. § 7410 (1993).

[4] The EPA estimated in its proposed rule that a conformity determination would cost approximately $5,000, whereas an extensive conformity determination would cost $50,000. 58 Fed. Reg. 13848 (March 15, 1993). Department of Defense estimates double the figures supplied by the EPA.

[5] Pub. L. 95-95, § 176(c) (1977).

[6] Section 176(c)(1) provides in relevant part that:

> No department, agency, or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve,

(continued...)

agency engages in a Federal project, but it is also triggered whenever a Federal agency permits, licenses, funds, or approves a non-Federal undertaking. The Corps' Clean Water Act (CWA) section 404 permits, Rivers and Harbors Act of 1899 Section 10 permits, and Ocean Dumping Act Section 103 permits fall under this latter category.

II. APPLICABILITY.

A. EXEMPTIONS AND PRESUMPTIONS. As you study the final rule and its preamble, the first general subject to consider is the "applicability" of the rule. The new rule applies generally to Federal actions except for those covered by EPA's transportation conformity rule[7], actions with associated emissions below the de minimis levels specified at 40 CFR 91.853, certain classes of actions designated at 40 CFR 91.853 as exempted or presumed to conform, and actions that the new rule "grandfathers" at 40 CFR 91.850. A number of Corps activities may fit within the long list of "exempted" or "presumed to conform" activities. For example, note the specific exemption provided for maintenance dredging and debris disposal actions.

B. GRANDFATHER CLAUSE. As you consider the "grandfather provision", remember that it describes the specific circumstances where a Federal action need not comply with the new general conformity rule, but the Corps might nevertheless have to create and sign a CAA conformity determination to show compliance with the statutory mandate of CAA Section 176(c). However, that conformity determination would not have to comply with the specific procedural requirements of the new EPA regulation. Also note that the second basis provided in the rule for grandfathering, i.e., the three-part requirement of 40 CFR 93.150(c)(2), requires that an environmental analysis had to be commenced prior to January 31, 1994, or that a contract to develop a specific environmental analysis was awarded prior to January 31, 1994. The reference in that section to the date of December 30, 1993, was an error. The EPA has since corrected that date to January 31, 1994, by publishing the correction in the Federal Register, i.e., January 31, 1994. Moreover, that same section requires that a CAA conformity

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[6](...continued)
any activity which does not conform to an implementation plan after it has been approved or promulgated under section 110. . . . The assurance of conformity to such an implementation plan shall be an affirmative responsibility of the head of such department, agency or instrumentality.

C.A.A. § 176(c)(1), 42 U.S.C. § 7506 (1993).

[7]See 40 CFR Part 51, subpart T.

determination demonstrating compliance with the statutory mandate of CAA Section 176(c) be signed by March 15, 1994.

C. ATTAINMENT VERSUS NON-ATTAINMENT AREAS. Also regarding applicability, note that the new CAA General Conformity Rule applies only to Federal actions in CAA non-attainment areas and in those attainment areas subject to maintenance plans required by CAA Section 175A (i.e., "maintenance areas"; see 58 Fed. Reg. 13841) . EPA has announced its intentions to do another rulemaking at a later date describing how CAA Section 176(c) will be applied to CAA attainment areas, in general.

III. REQUIREMENTS OF THE NEW RULE.

To fully understand the requirements of the rule, you must carefully study both the rule itself and the explanatory guidance provided in the preamble. In the near future, the Office of the Chief Counsel expects to provide additional guidance that will assist Corps personnel who must prepare CAA conformity determinations, especially for Corps planning studies, feasibility reports, and the like. In this guidance, I only wish to emphasize a few important aspects of the rule, to ensure understanding of those matters throughout the Corps, for both our projects and our regulatory responsibilities.

A. CONFORMITY DETERMINATIONS. The basic requirement of the General Conformity Rule is stated at 40 CFR 93.150(b): "A Federal agency must make a determination that a Federal action conforms to the applicable implementation plan in accordance with the requirements of this subpart before the action is taken." (emphasis added). Obviously, to implement that mandate we must turn to the definition of "Federal action" provided at 40 CFR 93.152:

> **Federal action** means any activity engaged in by a[n] ... agency ... of the Federal Government, or any activity that a[n] ... agency ... supports in any way, provides financial assistance for, licenses, permits, or approves.... Where the Federal action is a permit, license, or other approval for some aspect of a non-Federal undertaking, the relevant activity is the part, portion, or phase of the non-Federal undertaking that requires the Federal permit, license, or approval."

B. DIRECT EMISSIONS. Regarding what air emissions must be considered in a CAA conformity determination, the rule defines two classes: direct emissions, and indirect emissions. The definition of "direct emissions" is straightforward: "Direct emissions" means those emissions of a criteria pollutant or its precursors that are caused or initiated by the Federal action and occur at the same time and place as the action." (40 CFR 93.152)

C. INDIRECT EMISSIONS. In contrast, the definition of "indirect emissions" needs careful study: "indirect emissions"

means those emissions of a criteria pollutant or its precursors that: (1) Are caused by the Federal action but may occur later in time and/or may be further removed in distance from the action itself but are still reasonably foreseeable; and (2) The Federal agency can practicably control and will maintain control over due to a continuing program responsibility of the Federal agency." (40 CFR 93.152; emphasis added.) Note that the second, limiting part of that definition is crucial, since the underlined words provide essential restrictions on how far the Corps' responsibilities extend regarding documenting and controlling indirect emissions. Those restrictions from the rule's definition of "indirect emissions" are especially important, given the General Conformity Rule's broad, "but for" definition of the term "caused by": "Caused by, as used in the terms 'direct emissions' and 'indirect emissions,' means emissions that would not otherwise occur in the absence of the Federal action."[8] This definition of the term "caused by" can be characterized as a "but for" approach to the concept of causation, because, standing alone, it would require the Corps to take responsibility for all indirect emissions that would not occur without (i.e., "but for") the Corps permit or project. If the General Conformity Rule did not contain the various limiting provisions discussed herein, that "but for" approach to defining "caused by" would have made the Corps responsible for dealing with potential emissions that might not occur "but for" the Corps project or permit, but which might be substantially removed in time and/or distance from the Corps action; those emissions would be almost impossible for the Corps to predict, document, or control through mitigation measures.

Consequently, it is of considerable importance to the Corps Civil Works program that everyone understand and make proper use of the restrictions noted above in the definition of "indirect emissions" when deciding whether or how we need to prepare a CAA conformity determination. Of course, the Corps must consider the "direct emissions" caused by our proposed project or activity, or by the specific activity requiring a Corps permit. However, the final General Conformity Rule does not require the Corps to document or analyze any "indirect emissions" unless we determine that it would be practicable for the Corps to control them, and that the Corps would maintain control over them due to a continuing Corps program responsibility. As we shall discuss later, we expect that the Corps will not be legally required under the General Conformity Rule to analyze, document, and seek mitigation measures for indirect emissions for many Corps project-related actions, and for the vast majority of actions requiring Corps permit authorization, since often it will not be practicable for the Corps to control such emissions, and frequently the Corps will not have a continuing program responsibility to maintain control over them.

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[8] 40 CFR 913.152 (1994).

The logic behind the limitation on what "indirect emissions" the Corps must analyze, document, and seek mitigation measures to reduce, is explained in the preamble to EPA's rule, as follows:

> The EPA does not believe that it is reasonable to conclude that a Federal agency "supports" an activity by third persons over whom the agency has no practicable control--or "supports" emissions over which the agency has no practicable control, based on the mere fact that, if one inspects the "causal" chain of events, the activity or emissions can be described as being a "reasonably foreseeable" result of the agency's actions.
>
> In fact, achievement of the clean air goals is not primarily the responsibility of the Federal government. Instead, Congress assigned that responsibility to the State and local agencies.... Where the Federal control over the resultant emissions is relatively minor, the problem is likely caused by multiple pollution sources and a solution may be impossible unless it is directed at all the contributing sources. This role is given to the State and local agencies by Congress and should not be interpreted as the Federal agencies' role under section 176(c).[9]

IV. CORPS IMPLEMENTATION OF THE EPA GENERAL CONFORMITY RULE.

A. CORPS PROJECTS VERSUS NON-FEDERAL ACTIVITIES NEEDING CORPS PERMIT AUTHORIZATION.

From a legal point of view, many of the limitations on Corps responsibilities for documenting and mitigating for indirect emissions (as discussed above) apply to both Corps Civil Works projects and to Corps regulatory program actions regulating non-Federal activities. Nevertheless, there are some significant distinctions that must be made, as a practical matter, regarding how often and in what circumstances the Corps will voluntarily choose to go beyond our strict legal obligations under the General Conformity Rule regarding CAA analyses of indirect emissions. As we explain at some length hereinafter, for practical reasons, policy reasons, and legal reasons, we are not required to, and thus we will not, prepare CAA conformity determinations for the vast majority of the approximately 100,000 activities that we must authorize yearly through the Corps regulatory program. We intend to assert and make full use of the various exemptions and limitations written into the General Conformity Rule that apply to our regulatory program, which exemptions and limitations will usually lead us to conclude that the emissions we are responsible for fall below the de mimimis exemption level. Among the many reasons why this approach is necessary and appropriate is the fact

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[9] 58 Fed. Reg. 63220 (November 30, 1993)

that we must provide relatively expeditious decisions for non-Federal activities that require Corps permit authorization, and because all of the non-Federal activities that require Corps permits are fully subject to the CAA authorities of the U.S. EPA and of the state and local governments.

In contrast, some Corps water resource development projects go through lengthy planning processes, with full-scale NEPA Environmental Impact Statements, coordination with numerous state and Federal agencies, etc. Moreover, many of our water resource development projects are subject to litigation brought by project opponents. Consequently, wherever it is practicable and appropriate, the Corps will go beyond our strict legal obligations under the General Conformity Rule, and we will prepare CAA conformity determinations that consider indirect emissions that would follow from our project, even where it is debatable whether we could "practicably" control those indirect emissions, and even where it is debatable whether the Corps has a continuing program responsibility to control those indirect emissions. In other words, we should err on the side of caution in writing CAA conformity determinations for large-scale Corps projects, and in coordinating those determinations with the U.S. EPA and with state and local clean air agencies. However, whenever the Corps does voluntarily choose to go beyond our obligations under the General Conformity Rule while preparing a CAA conformity determination, the fact that we are voluntarily going beyond our understanding of our legal obligations must be clearly stated in our public documentation.

When the Corps prepares a CAA conformity determination for a Corps project in the planning stage, and in that conformity determination we voluntatily address all indirect emissions that would be "caused by" our project, that will provide us the valuable opportunity to demonstrate that any short-term increase in emissions from project construction will be entirely or partially offset by decreases in long-term, "without project condition" emissions, due to increased efficiencies (for example, through more efficient port operations from a port improvement project). Also, when we prepare a CAA conformity determination that deals with all indirect emissions that can reasonably be said to be "caused by" our project, our project can be presented to the state CAA authority and specifically approved as part of the state implementation plan, along with any necessary state revisions to that SIP necessary to accommodate the Federal project and all associated indirect emissions. Development and coordination of our CAA conformity determination should be undertaken as early as possible in the planning stage for a large-scale or litigation-prone Corps project. The resulting documentation will be extremely useful to help defend our project from potential litigation challenging compliance with the CAA. On the other hand, for small-scale Corps projects, covered only by environmental assessments and findings of no significant impact, and where no CAA-related litigation can be anticipated, we can probably rely only on the

exemptions found in the General Conformity Rule, and need not necessarily prepare a full-blown CAA conformity determination voluntarily addressing various indirect emissions. Please feel free to consult the points of contact provided in this guidance if you are in doubt about whether a particular Civil Works activity should be covered by a CAA conformity determination voluntarily covering indirect emissions.

B. THE CORPS REGULATORY PROGRAM.

One crucial aspect of this guidance involves how we expect all Corps offices to implement the CAA General Conformity Rule regarding non-Federal activities requiring authorization under the Corps regulatory program. Of course, if another Federal agency requires a Corps permit for one of its activities or projects, that Federal agency is fully responsible for ensuring compliance with CAA Section 176(c), and the Corps can adopt and rely upon that agency's conformity determination, or upon whatever waiver or presumption under the CAA General Conformity Rule that agency believes will satisfy CAA Section 176(c). However, for non-Federal activities, the Corps must take responsibility for whatever CAA conformity determination may be necessary. Nevertheless, for the reasons explained hereinafter, the new rule and its preamble clearly indicate that the vast majority of activities needing Corps permit authorization will not require a CAA conformity determination, because practically all of those activities will fall below the de minimis threshold levels for emissions specified at 40 CFR 93.153.

C. SCOPE OF ANALYSIS. One feature of EPA's final General Conformity Rule that clearly demonstrates that the Corps will not have to perform many conformity determinations is the rule's definition of the term "Federal action". The final rule's definition clearly distinguishes between large Federal projects, such as a Federally funded and Federally controlled military base, versus non-Federal undertakings that simply require a Federal permit. Oftentimes in the latter case, the Federal agency only has to permit a minor part, portion, or phase of a much larger non-Federal undertaking. To reflect the limited Federal responsibility under the CAA derived from such Federal permits, the EPA definition of "Federal action" indicates that, in complying with section 176(c), Federal regulatory agencies are only responsible for analyzing the emissions resulting from the "part, portion, or phase" of the non-Federal undertaking that they permit. To deal with this important point, the EPA added the following sentence to the final rule's definition of "Federal action":

> Where the Federal action is a permit, license, or other approval for some aspect of a non-Federal undertaking, the relevant activity is the part, portion, or phase of

the non-Federal undertaking that requires the Federal permit, license, or approval.[10]

As you can see, the legal principle behind the quoted sentence is the same principle that supports the "narrow scope of analysis" approach for our NEPA documents reflected at Appendix B of 33 CFR Part 325, paragraph 7.b. and the "permit area" approach used to limit Corps responsibilities in Appendix C, implementing the National Historic Preservation Act.[11] The rule of administrative law and practice created by the sentence just quoted from EPA's definition of "Federal action" is that, for the limited and particular purposes of the CAA Conformity Rule and for every Corps CAA conformity determination for a Corps regulatory action under this rule, the Corps will always use a narrow "scope of analysis" for purposes of CAA Section 176(c), even if we choose to use a broader scope of analysis for purposes of NEPA, the public interest review, or the 404(b)(1) analysis for that same permit case.

This narrow scope of analysis for purposes of the CAA conformity analysis is always appropriate, for several reasons. For example, the Corps regulators have no expertise or authority allowing them to evaluate or control air emissions from the larger, overall projects, such as a shopping center, that may require a Corps permit for one phase or portion of that larger project (e.g., placement of fill material on which part of the shopping center will later be constructed and operated). In contrast, the state and EPA clean air authorities have broad, general authority, expertise, and responsibility to evaluate and control air emissions from the larger, overall projects, such as shopping centers, regardless of whether part of all of such a shopping center happens to be constructed on fill material permitted by the Corps of Engineers.

D. CONFORMITY DETERMINATIONS FOR CORPS PERMITS CASES WILL BE NECESSARY VERY RARELY. The sentence quoted above from EPA's definition of "Federal action" may well be the most important provision of the General Conformity Rule relating to the Corps regulatory program, because this provision, in conjunction with the restrictive language discussed above from the definition of "indirect emissions", means that very rarely will the Corps have to prepare a CAA conformity determination document for a Corps regulatory action. The reasons for this conclusion are reflected in the following case example, provided by EPA in the preamble of the final General Conformity Rule. In this example, the EPA shows the close relationship between the sentence quoted above from the definition of "Federal action" and the restrictive language from the definition of "indirect emissions", as follows:

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[10] 58 Fed. Reg. 63248 (November 30, 1993).

[11]. 55 Fed. Reg. 27000 (June 29, 1990)

> [In the final rule] the definition of "Federal action" is revised by adding the following sentence to the end of the definition in the [proposed rule]: Where the Federal action is a permit, license, or other approval for some aspect of a nonfederal undertaking, the relevant activity is the part, portion, or phase of the nonfederal undertaking that requires the Federal permit, license or approval. The following examples illustrate the meaning of the revised definition.
>
> Assume, for example, that the [Corps] issues a permit and that permitted fill activity represents one phase of a larger nonfederal undertaking; i.e., the construction of an office building by a nonfederal entity. Under the conformity rule, the [Corps] would be responsible for addressing all emissions from that one phase of the overall office development undertaking that the [Corps] permits; i.e., the fill activity at the wetland site. However, the [Corps] is not responsible for evaluating all emissions from later phases of the overall office development (the construction, operation, and use of the office building itself), because later phases generally are not within the [Corps'] continuing program responsibility and generally cannot be practicably controlled by the [Corps].[12]

The conclusion to be drawn regarding the preamble's case example is that the Corps almost certainly would not have to prepare a CAA conformity determination for that permit action described in the preamble, because the direct emissions from the fill activity would be relatively minor, and thus in all probability they would fall below the de minimis levels exempted by 40 CFR 93.153. Moreover, in this example one cannot identify any indirect emissions for which the Corps would be responsible.

E. "PART, PORTION, OR PHASE" OF A LARGER UNDERTAKING. The preamble for the final rule provides several other important explanatory passages that accurately describe the limited nature of the responsibilities the Corps must fulfill as we operate our regulatory program in compliance with EPA's General Conformity Rule. As the EPA states in the preamble, the "inclusive definition" that EPA had published for public comment in the proposed rule to define the term "indirect emissions" would have been overly burdensome and inappropriate for regulatory programs that might have to "document the air quality affects from tens of thousands of public and private business activities each year, even where the associated Federal action in extremely minor."[13] The EPA

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[12] 58 Fed. Reg. 63227 (November 30, 1993).

[13] 58 Fed. Reg. 63219 (November 30, 1993).

goes on to use the Corps in an illustration of this point by explaining that:

> [T]he Army Corps of Engineers estimates that 65,000 of their regulatory actions would have required a conformity review in 1992 under the inclusive definition. The [Corps] permits are often limited to a small portion of a much larger project and, thus, may not be the best mechanism to review the larger project: e.g., one river crossing for a 500 mile gas pipeline or a half-acre wetland fill for a twenty acre shopping mall.[14]

As the EPA explains here, it would be impractical to force a Federal regulatory agency like the Corps to do potentially time-consuming and costly air quality analyses when the activity that agency permits may be a very minor aspect of a much larger non-Federal undertaking, and when that specific activity needing a Corps permit may have little or no effect on air quality.

F. CONTINUING PROGRAM RESPONSIBILITY. The EPA also used the Corps in an illustration to explain the phrase "continuing program responsibility" in the definition of the term "indirect emissions". In their example the EPA explains that only if the Corps were to impose conditions on a permit as part of its responsibilities under its regulatory program and these permit conditions, in and of themselves, would lead to an increase in the air emissions caused by the activity, would the Corps be required to include the air emissions caused by its permit conditions in our CAA conformity analysis.[15] However, the preamble to EPA's rule makes clear that normally the Corps is not responsible for indirect emissions related to activities needing Corps permits:

> j. Exclusive definition [for the term "indirect emissions"]--types of Federal actions not covered. The following types of Federal actions, among others, are not covered by the conformity rule under the exclusive definition approach [i.e., the approach adopted in the final rule]....(3) Certain indirect emissions related to a [Corps of Engineers] permit for the discharge of dredged or fill material. The indirect emissions from development activities related to [Corps] permit actions are not subject to the continuing program responsibility of the [Corps], or cannot be practicably controlled by the [Corps].[16]

The EPA preamble also recognizes that the Corps has an explicit exemption from the conformity rule where:

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[14] 58 Fed. Reg. 63219 (November 30, 1993).

[15] 58 Fed. Reg. 63220 (November 30, 1993).

[16] 58 Fed. Reg. 63224 (November 30, 1993).

> The indirect emissions from development activities related to [Corps] permit actions are not covered where such emissions are not subject to the continuing program responsibility of the [Corps], or cannot be practicably controlled by the [Corps].[17]

The EPA then goes on in the preamble to explain the changes in the definition for the term "indirect emissions" that EPA adopted in its final General Conformity Rule (i.e., the "exclusive" definition). Again it uses the Corps in an illustration. The EPA points out that conformity analyses are not required when Federal actions are incidental to later development by private parties. As the EPA states:

> ...this approach would not require a conformity analysis for certain Federal actions that are necessary for, but incidental to, subsequent development by private parties. For example, the exclusive definition does not generally require that a [Corps] fill permit needed for a relatively minor part, portion, or phase of a twenty acre development on private land would somehow require the [Corps] to evaluate all emissions from the construction, operation, and use of that larger development.[18] (emphasis added)

Here the EPA explains that the "activity" contemplated under section 176(c) in many cases is properly limited to the particular "part, portion, or phase" of a non-Federal action that is actually permitted by the regulatory agency (i.e., the Corps). As the EPA goes on to explain:

> The person's [i.e., permit applicant's] activities that fall outside the Federal agency's continuing program responsibility to control are subject to control by state and local agencies.[19]

As indicated above, generally speaking the Corps does not have a continuing program responsibility to measure, monitor, control, or mitigate for air emissions that may result from the construction or operation of a non-Corps facility (such as a shopping center, factory, or non-Federal port), even though some part, portion, or phase of that facility requires a permit from the Corps. Under the CAA, the state and local clean air authorities have full responsibility and authority to deal with those emissions, and to prevent or condition the construction of the non-Federal facility as necessary to deal with those air emissions. Under the General

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[17] 58 Fed. Reg. 63224 (November 30, 1993).

[18] 58 Fed. Reg. 63222 (November 30, 1993).

[19] 58 Fed. Reg. 63222 (November 30, 1993)

Conformity Rule the Corps (1) must consider direct emissions from only the particular part, portion, or phase of the larger, non-Federal facility that we permit; and (2) we must consider indirect emissions from that same part, portion, or phase, and then only to the extent that we can practicably control them, and have a continuing program responsibility to control them.

G. CORPS DOCUMENTATION OF COMPLIANCE WITH CAA SECTION 176(C)

For any permit case where the Corps reasonably determines that the emissions from the particular "part, portion, or phase" of a larger, non-Federal undertaking, needing a Corps permit, would fall below the de minimis threshold levels of 40 CFR 93.153, the Corps will not have to conduct a technical analysis to document that the emissions from the proposed undertaking would not exceed the de minimis thresholds. This conclusion is supported by the following example taken from EPA's preamble to the General Conformity Rule:

> Example 4: Where a [Corps of Engineers] permit is needed to fill a wetland so that a shopping center can be built on the fill, generally speaking, the [Corps] could not practicably maintain control over and would not have a continuing program responsibility to control indirect emissions from subsequent construction, operation, or use of that shopping center. Therefore, only those emissions from the equipment and motor vehicles used in the filling operation, support equipment, and emissions from movement of the fill material itself would be included in the analysis. If such emissions are below the de minimis levels described below for applicability purposes (section 51.858), no conformity determination ... would be required for the issuance of the ... permit.[20]

The same point is made elsewhere in the preamble to the General Conformity Rule, as follows:

> Most Federal actions result in little or no direct or indirect air emissions. The EPA intends such actions to be exempted under the de minimis levels specified in the rule and, thus, no further analysis by the Federal agency is required to demonstrate that such actions conform.... Further, the EPA believes that Federal actions which are de minimis should not be required by this rule to make an applicability analysis. A different interpretation could result in an extremely wasteful process which generates vast numbers of useless conformity statements. Paragraphs (c)(1) and (2) of Section 51.853 are added to the final rule to provide that de minimis actions are exempt from the requirements of this rule. Therefore, it is

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[20] 58 Fed. Reg. 63223 (November 30, 1993).

not necessary for a Federal agency to document emissions levels for a de minimis action.[21]

Although we expect that the vast majority of activities needing Corps permits will not need CAA conformity determinations for the reasons explained above, nevertheless, for any permit case where litigation can be anticipated if the Corps issues the permit, the permit administrative record should explain our limited CAA responsibilities under the CAA General Conformity Rule, and the basis for our conclusion that the relevant emissions would be de minimis. That explanation often may need to include a discussion of why it would not be "practicable" for the Corps to control certain specified indirect emissions, and why the Corps does not have a continuing program responsibility to control such indirect emissions, and why our CAA responsibilities are limited to the particular "part, portion, or phase" of a larger undertaking requiring Corps permit authorization.

V. CONCLUSION.

Because of the various provisions discussed above, we expect that very few Corps permit actions will require CAA conformity analyses, and that our CAA conformity determinations will normally conclude that the air emissions relevant to our permit action are safely below the final rule's de minimis levels. It seems that the only time that the Corps will have to do a full-scale CAA conformity determination in a permit case is when the emissions associated with the particular activity needing the Corps permit, or the particular activity required by Corps permit conditions (e.g., the placement of the fill, or the construction of the structure in the water, or the actual dredging and disposal operation, or implementation of the required mitigation plan) are so substantial that those emissions would exceed the de minimis thresholds by themselves. This conclusion flows logically from the provisions discussed above from EPA's final rule and preamble, based in part on the principle of limited Corps responsibilities under the CAA.

Nevertheless, the practical necessity that the Corps will use a "narrow scope of analysis" to limit our requirements under the CAA conformity rule must not lead the Corps necessarily to use such a narrow scope of analysis for purposes of the Corps' other responsibilities under other aspects of the public interest review or the 404(b)(1) Guidelines. Because the Corps has ample discretion to adopt and use a broader scope of analysis for purposes of NEPA, the Endangered Species Act, etc., we will not use the CAA conformity determination as an excuse or occasion to reduce our more wide-ranging reviews and responsibilities under those other statutes and regulations.

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[21] 58 Fed. Reg. 63228-63229 (November 30, 1993).

The Corps' very limited expertise, authority, and continuing program responsibilities regarding air emissions fully justifies our using a narrow scope of analysis for purposes of compliance with CAA Section 176(c). In contrast, our broader, traditional responsibility, authority, and expertise to regulate activities affecting aquatic resources will often justify our using a broader scope of analysis to consider effects of a proposed undertaking on aquatic resources, endangered species, etc. Thus, for any particular permit case, the Corps will implement the CAA General Conformity Rule by focusing on only the specific part, portion, or phase of the larger undertaking that requires our permit authorization. Nevertheless, we often will consider all direct and indirect effects of the larger undertaking when evaluating effects on the aquatic environment.

Corps Headquarters points of contact for this guidance are Lance Wood and Bill Sapp of the Office of the Chief Counsel (CECC-E); their telephone number is (202) 272-0035. However, non-counsel Corps employees should only contact them in conjunction with district/division counsel to ensure proper coordination.

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Attachment D

Listing of Changes Made to the Draft General Conformity Determination

D.1 Global Changes

The following changes were made throughout the general conformity determination:

- All headers, as well as the cover page, were revised to indicate that this document is no longer the "draft" but is now the "final" general conformity determination.
- All references to Appendix O and "Addendum to the Final EIS" have been removed from the cover page and all headers and footers.

D.2 Specific Changes

The specific changes noted below indicate text additions with *italic font* and text deletions with ~~strikeout font~~.

- Cover Page, date changed: *March 12, 2009*~~November 2008~~
- Page ii, Added Attachment D to list of attachments:
  Attachment D Listing of Changes to the Draft General Conformity Determination
- Section 1, 2nd paragraph, changed 2nd sentence (Page 1-1):
  This *final*~~draft~~ general conformity determination documents the evaluation of the Federal action with Section 176 (c) requirements of the Clean Air Act.
- Section 1, 2nd paragraph, changed last sentence (Page 1-1):
  Attachment D lists the changes made to the general conformity determination between the Draft issued in November 2008 and the Final issued in March 2009.
- Section 2, 1st paragraph, changed last sentence (Page 2-1):
  This *final*~~draft~~ general conformity determination is related only to those activities included in the USACE's Federal action pertaining to the Project selected by the Los Angeles Harbor Department (LAHD). The Project is more fully described in Section 2.1.
- Section 2.1, Page 2-2, changed first full paragraph:
  As part of the environmental review of the Project, the USACE, in coordination with the City, has prepared this *final*~~draft~~ general conformity determination to demonstrate compliance with the general conformity requirements in support of the USACE's Federal Action associated with the Project.
- Section 2.1, Page 2-4, changed last paragraph:
  All of the mitigation measures that the USACE has relied upon in this *final*~~draft~~ general conformity determination are CEQA-related mitigation measures that

have been expressly adopted by LAHD and the City in approving the overall project and certifying the EIR. As such, those mitigation measures are fully enforceable under Cal. Pub. Res. Code § 21081.6. California regulations also require compliance with mitigation requirements as stated in a mitigation monitoring and reporting program (MMRP); see 14 C.C.R. §§ 15091(d) and 15097(c)(3). The Project MMRP (LAHD 2007), which incorporates all of the mitigation measures that the USACE has relied upon in this *final*~~draft~~ general conformity determination, describes LAHD's lead responsibility for administering the program, the timing of implementation, monitoring frequency, and actions indicating compliance. These provisions ensure that the measures will be properly implemented through incorporating mitigation measures into all construction bid specifications for the Project.

- Section 2.2, Page 2-5, last paragraph, changed and added last sentences:
  …The*~~is~~* draft general conformity determination *was*~~is being~~ published with an Addendum to the Final EIS *(USACE 2008)* that clarifie*d*~~s~~ the Federal Action, and revise*d*~~s~~ the construction emissions associated with the Federal Action. *This final general conformity determination is being published with the USACE Record of Decision (ROD) for the Federal Action.*

- Section 4.5.2, Table 4-2, Page 4-6, changed berth reference in table:
  Remove 2 Existing Cranes at Berth *145*~~144~~/"
  Install 3 Cranes at Berth *145*~~144~~/"

- Section 4.5.2, Table 4-3, Page 4-7, changed berth reference in table:
  Remove 2 Existing Cranes at Berth *145*~~144~~/"
  Install 3 Cranes at Berth *145*~~144~~/"

- Section 5.1.1, Page 5-1, last paragraph, changed 2nd-to-last sentence and added footnote:
  In August 2003, SCAQMD submitted to CARB the final 2003 AQMP (SCAQMD 2003), and this formed the basis of a proposed SIP revision submitted by CARB to EPA on January 9, 2004[2]~~; EPA has not yet acted on that proposed SIP revision~~.
  [2] *On March 10, 2009, EPA issued a final rule that partially approved and partially disapproved the 2003 AQMP. Among the portions that were approved were the Base year emissions inventory and the Baseline inventories. However, the EPA did not approve the attainment budgets for ozone. Therefore, the EPA-approved budgets for attainment demonstrations continue to be those developed for the 1997/1999 AQMP.*

- Sections 7, 7.1, and 7.2, Page 7-1, changed each paragraph:
  Section 7
  To support a decision concerning the Federal Action, the USACE is issuing this *final*~~draft~~ general conformity determination *with the ROD*~~ for public review and comment. The USACE will also make public its final general conformity determination for this action~~.
  7.1 Draft General Conformity Determination

~~At a minimum, t~~*T*he USACE *provided*~~is providing~~ copies of th*e*~~is~~ draft general conformity determination to the appropriate regional offices of EPA, any affected Federal land manager, as well as to CARB, SCAQMD, and SCAG~~, providing opportunity~~ for a 30-day review. The USACE ~~is~~ also plac*ed*~~ing~~ a notice in a daily newspaper of general circulation in the SCAB announcing the availability of th*e*~~is~~ draft general conformity determination and requesting written public comments for a 30-day period.

7.2 Final General Conformity Determination

~~At a minimum, t~~The USACE *is providing*~~will provide~~ copies of th*is*~~e~~ final general conformity determination to the appropriate regional offices of EPA, any affected Federal land manager, as well as to CARB, SCAQMD, and SCAG, within 30 days of its promulgation. The USACE will also place a notice in a daily newspaper of general circulation in the SCAB announcing the availability of its final general conformity determination within 30 days of its promulgation. As part of the general conformity evaluation, the USACE *has*~~will~~ document*ed* its responses to all comments received on the draft general conformity determination and will make both the comments and responses available upon request by any person within 30 days of the promulgation of the final general conformity determination. *The responses to comments are also included in Appendix B of the ROD.*

- Section 8, Page 8-1, first paragraph, changed 3rd sentence and added text:
  The USACE conducted the general conformity evaluation following all regulatory criteria and procedures and in coordination with EPA, *CARB, SCAQMD,* and SCAG. *Specifically, SCAQMD and CARB researched the estimated construction equipment emissions developed for the approved SIP and 2007 AQMP for Los Angeles County. Based on this review, they concluded that the Federal Action emissions can be accommodated in the 1997 SIP and 2007 AQMP budgets. EPA reviewed and agreed with the regulatory analysis. A summary of the regulatory review is included in Attachment E.*

- Section 9, Page 9-2, added reference to EIS Addendum:
  U.S. Army Corps of Engineers (USACE). 2008. The Berth 136-147 [TraPac] Container Terminal Project (Port of Los Angeles): Addendum to the Final Environmental Impact Statement (EIS). November. Web site:
  http://www.portoflosangeles.org/EIR/TraPac/FEIR/FEIR_Addendum.pdf.

- Attachment A, updated memo to change crane removal and replacement from Berth 144 to Berth 145 in Tables 1 and 2, and all Exhibits:
  Remove 2 Existing Cranes at Berth *145*~~144~~/…
  Install 3 Cranes at Berth *145*~~144~~/…

Attachment E

Regulatory Evaluation of Construction Emissions for TraPac General Conformity Determination

Pehrson, John

From: Macneil, Spencer D SPL [Spencer.D.Macneil@usace.army.mil]
Sent: Thursday, March 12, 2009 10:37 AM
To: Pehrson, John
Subject: FW: TRAPAC General Conformity
Attachments: Offroad Construction Equipment 1997 AQMP Estimate (2).pdf

See below for memo - really just a long E-mail.

****

Spencer D. MacNeil, D.Env.
Senior Project Manager
U.S. Army Corps of Engineers, Los Angeles District
Regulatory Division
2151 Alessandro Drive, Suite 110
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(805) 585-2152
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From: Hanf.Lisa@epamail.epa.gov [mailto:Hanf.Lisa@epamail.epa.gov]
Sent: Thursday, March 12, 2009 10:32 AM
To: Sylvia Oey; jcassmassi@aqmd.gov
Cc: RAppy@portla.org; Macneil, Spencer D SPL; LMaun-DeSantis@portla.org; Tax.Wienke@epamail.epa.gov; Amato.Paul@epamail.epa.gov; j sunday
Subject: Fw: TRAPAC General Conformity

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----- Forwarded by Lisa Hanf/R9/USEPA/US on 03/12/2009 10:28 AM -----

From: Lisa Hanf/R9/USEPA/US
To: Sylvia Oey <soey@arb.ca.gov>, Sylvia<Sylvia@ARB" <soey@arb.ca.gov, jcassmassi@aqmd.gov>
Cc: Ralph" <RAppy@portla.org/O=, "Macneil/, Spencer D SPL" <Spencer.D.Macneil@usace.army.mil/O=, LMaun-DeSantis@portla.org, Paul Amato/R9/USEPA/US, JohnJ Kelly/R9/USEPA/US, Wienke Tax/R9/USEPA/US, Tom Coda/RTP/USEPA/US, Allyn Stern/R9/USEPA/US,/
Date: 03/12/2009 10:26 AM
Subject: TRAPAC General Conformity

Thank you for providing the attached information regarding the General Conformity analysis for the TRAPAC project. We are deferring to the analysis prepared by ARB and SCAQMD, and additional information that was provided verbally showing that General Conformity for the TRAPAC project has been met. This response is limited to the TRAPAC project portion of the analysis. The 1997/99 State Implementation Plan (SIP) is the applicable SIP for this conformity analysis.

We would appreciate the opportunity to discuss general conformity analyses for future port projects in advance.

_____

Lisa B. Hanf, Chief
Air Planning Office

U.S. Environmental Protection Agency - Region 9
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"Oey, Sylvia@ARB" <soey@arb.ca.gov>

03/11/09 04:31 PM

To <jcassmassi@aqmd.gov>, Wienke Tax/R9/USEPA/US@EPA, Paul Amato/R9/USEPA/US@EPA, Tom Coda/RTP/USEPA/US@EPA

cc "Karperos, Kurt@ARB" <kkarpero@arb.ca.gov>, "Murchison, Linda@ARB" <lmurchis@arb.ca.gov>, "Benjamin, Michael@ARB" <MBenjami@arb.ca.gov>, "Johnson, Martin@ARB" <mjohnson@arb.ca.gov>, "Sax, Todd@ARB" <tsax@arb.ca.gov>, <bbaird@aqmd.gov>, "Poppic, George@ARB" <gpoppic@arb.ca.gov>, "Withycombe, Earl@ARB" <ewithyco@arb.ca.gov>

Subject Port Project Conformity Analysis

Section 176(c) of the Clean Air Act mandates that all federal actions conform to the applicable SIP. For the South Coast Air Basin, the applicable SIP is the 1997 Air Quality Management Plan adopted by the South Coast Air Quality Management District, as amended in 1999. This State Implementation Plan revision – the "1979/99 SIP" – was approved by U.S. EPA on April 10, 2000.

The U.S. Army Corp. of Engineers (Corp) and the Port of Los Angeles (POLA) are seeking a general conformity ruling on the proposed Berth 136-147 (TRAPAC) Container Terminal Project. The project, as proposed will greatly benefit the future air quality in the South Coast Air Basin through enhance emissions reductions at the Port of Los Angeles. The project however, will generate temporary NOx construction emissions that are estimated to exceed the *diminimus* threshold prescribed by federal conformity regulations. POLA and the Corp based their conformity assessment on the latest 1977/99 and the planning assumptions provided in the 2007 AQMP (submitted to US EPA). The TRAPAC NOx emissions for the total project during the period including 2009 through 2016 are estimated at 51.7 tons and the *diminimus* threshold of 10 TPY are expected to be exceeded twice: 2009 [20.9 TPY] and 2015 [15.1 TPY].

The U.S. Army Corp. of Engineers (Corp) and the Port of Los Angeles (POLA) are seeking a general conformity ruling on the proposed Berth 136-147 (TRAPAC) Container Terminal Project. The project as proposed will greatly benefit the future air quality in the South Coast Air Basin through enhance emissions reductions at the Port of Los Angeles. The project however, will generate temporary NOx construction emissions that are estimated to exceed the *diminimus* threshold prescribed by federal conformity regulations.

The applicable South Coast SIP contemplated growth activities in the South Coast Basin including growth activities at the Ports of Los Angeles and Long Beach. However, in the applicable SIP, the emission inventories contained for off-road mobile equipment are generalized, making it difficult to determine whether the emissions associated with three new projects at the Port of Los Angeles are included in the projections in the applicable SIP. Although the projects will have the long-term impact of reducing port emissions, the impact of the construction emissions on the conformity budget has been questioned.

ARB and SCAQMD staff have determined that the projected construction emission associated with three Port of Los Angeles projects – TRAPAC, Marine Terminal, and China Shipping – will not exceed the conformity budgets in the Applicable SIP for the South Coast. We used three analyses discussed below to reach this conclusion.

1. The Activity Projections Used to Develop the 1997/99 SIP Included Port Growth Projections

As provided by law, the Southern California Association of Governments (SCAG) develops the activity factors (growth rates) that are used to develop the emission inventories used in air quality plans for Los Angeles County and the South Coast Air Basin (California Health and Safety Code sections 40464, 40465). SCAG has affirmed that the POLA construction growth was incorporated in each of the plans, and more specifically in the respective growth rates for construction activity. In addition, SCAG's 2004 Interim Regional Transportation Plan (RTP) growth projections used in the development of the 2007 AQMP and the 2008 RTP directly incorporated the projected transportation related emissions growth from the TRAPAC project in into their regional assessment. While the temporary construction emissions from the project were not included in the 2007 AQMP as a line item, SCAG included the emissions as a component of their county and regional construction growth projections that were used in

the 2007 AQMP. The projected growth rates developed by SCAG for the 1997 and 2007 AQMPs and associated RTPs are not tied to specific construction categories but to the overall projected change in construction activities for county and Basin level. SCAG has affirmed that the POLA construction growth was incorporated in each of the plans, and more specifically the respective growth rates for construction activity.

2. The Construction Activity Projections Used in the 1997/99 SIP Exceed More Recent Projections

District staff compared the projected rate of growth of construction activities in the 1997/99 SIP to the more current estimates in the 2007 AQMP to determine how accurately the 1997/99 SIP projected growth. If the construction growth rates in the applicable SIP is greater than the similar rate developed from the 2007 AQMP, it can be argued the overestimation provides a margin that could be used to accommodate growth not contemplated when the 1997/99 SIP was developed. The 1997/99 SIP uses basin-wide projected construction growth rates of approximately 1.3 percent per year during the 2009 – 2016 period, as compared to the approximately 0.9 percent construction growth rate used for the same period in the 2007 AQMP. When applied to ARB's estimate of 80 tpd 2009-2010 construction emissions in the applicable SIP (see below), this difference, approximately .37 percent per year, provides a cushion of approximately 30 tpd for construction emissions not anticipated in the applicable SIP.

In summary, the 1997/99 SIP clearly estimated a greater rate of construction activity for port construction period than the current 2007 AQMP. While the port projects were not directly itemized, the 1997/99 SIP overestimation of construction activity dwarfs the actual projected construction emissions from these projects.

3. The Port Project Construction Emissions are Within the Estimated Construction Budget for the South Coast Air Basin

Conformity determinations must be based on the applicable SIP. However, the emission inventory used in the applicable SIP (the 1997/1999 AQMP) does not identify construction equipment as a discrete category of non-road sources. In fact, the 1997/99 inventory (which uses a 1993 base year) included all off-road equipment in just five categories, whereas the 2007 South Coast Ozone Plan -- the latest submitted to U.S. EPA as a SIP revision -- includes 1155 categories of off-road equipment, including 146 categories that are considered to be "construction equipment." Applying the most recent planning assumptions to the emissions data in the applicable South Coast SIP provides a way of comparing the anticipated construction emissions from these new projects to the more general off-road sources emission allowances of the applicable SIP. The results show that emissions from the proposed construction activities are well within the growth allowances of the applicable SIP.

The attached table show ARB's estimate of construction emissions in the 1997/99 SIP and the calculations used to derive this estimate. It should be noted that the 2007 SIP's inventory of off-road mobile sources also includes source categories that were not yet contemplated in the inventory used in the 1997/99 SIP. Excluding these new source categories from the 2007 SIP inventory (column A in the table) would have the effect of decreasing the denominator in the equation and increasing estimated construction emission inventory in 1997 AQMP currency (column C).

The following table compares the projected Port of Los Angeles construction emissions to our estimate of construction emissions in the 1997/1999 SIP.

Comparison of POLA Project[1] Construction Emissions to 1997 AQMP Estimated Construction Emissions, NOx tons per day		
	2009	2010
Combined Project Emissions	0.49	0.41
1997 AQMP Construction Emissions[2]	80.6	79.6
Project Fraction of AQMP Forecast	0.61%	0.52%

[1]Project includes TRAPAC, Marine Terminal, and China Shipping combined construction projects

[2]From attached table

Sylvia Oey, Manager
Southern California SIP Section
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Estimation of Emissions from Off-Road Construction Equipment (in 1997 AQMP Currency)

	(A) Total Off-Road Equipment Inventory -- 2007 SIP Currency [1]			(B) Construction Equipment --2007 SIP Currency [2]			(C) Total Off-Road Equipment Inventory -- 1997 AQMP Currency [3]			(D) Estimated Constructiion Equipment -- 1997 AQMP Currency = (B) / (A) * (C)		
Year	**ROG**	**NOX**	**PM10**	**ROG**	**NOX**	**PM10**	**ROG**	**NOX**	**PM10**	**ROG**	**NOX**	**PM10**
1993	123.8	260.4	17.7	23.2	167.0	12.0	42.6	155.4	8.3	8.0	99.7	5.6
2002	99.2	241.8	14.2	22.6	153.3	9.4	43.0	137.0	8.3	9.8	86.9	5.5
2008	80.4	194.2	11.8	17.8	129.5	7.7	45.1	122.2	8.6	10.0	81.5	5.6
2010	72.9	177.5	10.9	16.1	118.5	7.0	45.1	119.2	8.5	10.0	79.6	5.5
2011	69.5	169.1	10.4	15.3	112.5	6.6	45.3	119.5	8.5	9.9	79.5	5.5
2015	58.9	133.3	7.7	12.2	87.3	4.8	46.1	120.6	8.6	9.6	79.0	5.3
2020	52.5	98.2	5.2	9.2	58.1	2.8	47.1	122.1	8.6	8.3	72.2	4.6

Notes:

(1) Data source: CEFS O3SIPv1.06

(2) Construction Equipment as Defined in ARB's Construction Rule EIC List

(3) Data source: Published 1997 AQMP (Appendix III Nov 1996)

Interpolated Values