

Appendix E Exhibit 1

2010NML.001

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: C:\SDRIVE~1\RFBISC~1\EMF\NWECO\2010NML.I01

DATE: 7/13/2009 TIME: 14:49

2010- Normal

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*****
*                                     BUNDLE INFORMATION                                     *
*****
| BNDL # | CIRC # | VOLTAGE (kv) | VOLTAGE ANGLE (DEG) | LOAD (AMPS) | CURRENT ANGLE (DEG) | # OF COND | COORDINATES X (FT) | Y (FT) | PHASE |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 1 | 69.0 | .0 | 15.0 | .0 | 1 | -3.0 | 45.5 | A |
| 2 | 1 | 69.0 | 240.0 | 15.0 | 240.0 | 1 | 3.0 | 50.5 | B |
| 3 | 1 | 69.0 | 120.0 | 15.0 | 120.0 | 1 | 3.0 | 40.5 | C |
*****
*                                     MINIMUM GROUND CLEARANCE = 40.500 FT.                                     *
*****

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*****
*                                     SUBCONDUCTOR INFORMATION - REGULAR BUNDLES                                     *
*****
| BNDL # | DIAMETER (IN) | SPACING (IN) | DC RESIST. (OHMS/MI) | AC RESIST. (OHMS/MI) | AC REACT. (OHMS/MI) |
|-----|-----|-----|-----|-----|-----|
| 1 | .563 | .000 | .42840 | .43400 | .557000 |
| 2 | .563 | .000 | .42840 | .43400 | .557000 |
| 3 | .563 | .000 | .42840 | .43400 | .557000 |
*****

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*****
*                                     *
*                                     *
* MAXIMUM SURFACE GRADIENT (kv/cm) *
*                                     *
*                                     *
*****

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BNDL #	Type	ACrms	PEAK(+)	PEAK(-)
1	AC	9.67	13.68	-13.68
2	AC	9.32	13.18	-13.18
3	AC	9.44	13.35	-13.35

□

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*****
*                                     *
* AC ELECTRIC FIELD PROFILE *
* at 3.28 feet above ground *
*                                     *
*****

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LATERAL DISTANCE (feet)	(meters)	MAXIMUM FIELD (kv/m)	MINOR/MAJOR ELLIPSE AXES (ratio)	VERTICAL (kv/m)	HORIZONTAL (kv/m)	SPACE POTENTIAL (kv)
-300.0	-91.44	.003	.003	.003	.000	.003
-275.0	-83.82	.004	.004	.004	.000	.004

2010NML.001

-250.0	-76.20	.005	.004	.005	.000	.005
-225.0	-68.58	.006	.006	.006	.000	.006
-200.0	-60.96	.007	.007	.007	.000	.007
-175.0	-53.34	.009	.009	.009	.000	.009
-150.0	-45.72	.012	.013	.012	.000	.012
-125.0	-38.10	.016	.019	.016	.001	.016
-100.0	-30.48	.022	.030	.022	.001	.022
-75.0	-22.86	.033	.049	.033	.003	.033
-50.0	-15.24	.054	.085	.054	.006	.054
-25.0	-7.62	.104	.136	.103	.017	.103
.0	.00	.207	.091	.207	.021	.205
25.0	7.62	.150	.084	.149	.020	.148
50.0	15.24	.066	.090	.066	.008	.066
75.0	22.86	.039	.050	.039	.003	.039
100.0	30.48	.026	.026	.026	.001	.026
125.0	38.10	.018	.016	.018	.001	.018
150.0	45.72	.014	.011	.014	.001	.014
175.0	53.34	.010	.008	.010	.000	.010
200.0	60.96	.008	.006	.008	.000	.008
225.0	68.58	.006	.005	.006	.000	.006
250.0	76.20	.005	.004	.005	.000	.005
275.0	83.82	.004	.003	.004	.000	.004
300.0	91.44	.004	.003	.004	.000	.004

AC CURRENTS IN EACH BUNDLE:

BNDL #	----- AC CURRENTS (Amperes) -----			BUNDLE POSITION	
	REAL	IMAGINARY	TOTAL	X-COORD	Y-COORD
1	15.00	.00	15.00	-3.00	45.50
2	-7.50	-12.99	15.00	3.00	50.50
3	-7.50	12.99	15.00	3.00	40.50

*
* MAGNETIC FIELD PROFILE *
* at 3.28 feet above ground *
*

<----- AC MAGNETIC FIELD ----->						
LATERAL DISTANCE (feet)	(meters)	MAJOR AXIS (mG)	MINOR/ MAJOR (RATIO)	VERTICAL COMP (mG)	HORIZONTAL COMP (mG)	RMS RESULTANT (mG)
-300.0	-91.44	.01	.748	.01	.01	.01
-275.0	-83.82	.01	.744	.01	.01	.01
-250.0	-76.20	.01	.742	.01	.01	.02
-225.0	-68.58	.02	.741	.01	.02	.02
-200.0	-60.96	.02	.741	.02	.02	.02
-175.0	-53.34	.03	.742	.02	.02	.03
-150.0	-45.72	.03	.745	.03	.03	.04
-125.0	-38.10	.05	.749	.04	.04	.06
-100.0	-30.48	.07	.756	.06	.06	.09
-75.0	-22.86	.11	.764	.10	.09	.14
-50.0	-15.24	.19	.766	.18	.15	.24
-25.0	-7.62	.34	.733	.34	.25	.42

2010NML.001

.0	.00	.49	.649	.34	.48	.59
25.0	7.62	.38	.603	.33	.31	.45
50.0	15.24	.21	.607	.21	.13	.25
75.0	22.86	.12	.622	.11	.09	.14
100.0	30.48	.08	.635	.07	.06	.09
125.0	38.10	.05	.646	.04	.04	.06
150.0	45.72	.04	.655	.03	.03	.04
175.0	53.34	.03	.662	.02	.02	.03
200.0	60.96	.02	.669	.02	.02	.02
225.0	68.58	.02	.675	.01	.02	.02
250.0	76.20	.01	.681	.01	.01	.02
275.0	83.82	.01	.687	.01	.01	.01
300.0	91.44	.01	.693	.01	.01	.01

 *
 * AUDIBLE NOISE *
 * GENERATED ACOUSTIC POWER *
 * (dB above 1uW/m) *
 *

BNDL #	Type	Summer Fair	L5 RAIN	L50 RAIN
1	AC	*****	-93.50	*****
2	AC	*****	-96.12	*****
3	AC	*****	-95.21	*****

 *
 * AUDIBLE NOISE *
 *
 * Microphone is 5.00 feet above ground *
 * Altitude 0. ft *
 *

<----- HVTRC CALCULATION METHOD ----->

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	L50 FAIR (dB(A))	L5 RAIN (dB(A))	L50 RAIN (dB(A))	Leq(24) (dB(A))	Ldn (dB(A))
-300.0	-91.44	.0	2.8	.0	.0	.0
-275.0	-83.82	.0	3.3	.0	.0	.0
-250.0	-76.20	.0	3.8	.0	.0	.0
-225.0	-68.58	.0	4.4	.0	.0	.0
-200.0	-60.96	.0	5.1	.0	.0	.0
-175.0	-53.34	.0	5.8	.0	.0	.0
-150.0	-45.72	.0	6.6	.0	.0	.0
-125.0	-38.10	.0	7.4	.0	.0	.0
-100.0	-30.48	.0	8.4	.0	.0	.0
-75.0	-22.86	.0	9.6	.0	.0	.0
-50.0	-15.24	.0	10.9	.0	.0	.0
-25.0	-7.62	.0	12.4	.0	.0	.0
.0	.00	.0	13.2	.0	.0	.0
25.0	7.62	.0	12.4	.0	.0	.0
50.0	15.24	.0	11.0	.0	.0	.0
75.0	22.86	.0	9.6	.0	.0	.0
100.0	30.48	.0	8.5	.0	.0	.0
125.0	38.10	.0	7.5	.0	.0	.0
150.0	45.72	.0	6.6	.0	.0	.0

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175.0	53.34	.0	5.8	.0	.0	.0
200.0	60.96	.0	5.1	.0	.0	.0
225.0	68.58	.0	4.5	.0	.0	.0
250.0	76.20	.0	3.9	.0	.0	.0
275.0	83.82	.0	3.3	.0	.0	.0
300.0	91.44	.0	2.8	.0	.0	.0

2010PK.001

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: C:\SDRIVE~1\RFBISC~1\EMF\NWECO\2010PK.I01

DATE: 7/13/2009 TIME: 14:44

2010- Normal Peak

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*****
*                               BUNDLE INFORMATION                               *
*****
| BNDL | CIRC | VOLTAGE | VOLTAGE | LOAD | CURRENT | # | COORDINATES | PHASE |
|  #   |  #   | (KV)    | (DEG)   | (AMPS) | (DEG)   | OF | X | Y |
|      |      |          |          |          |          | COND | (FT) | (FT) |
*****
| 1   | 1   | 69.0    | .0      | 35.0   | .0      | 1 | -3.0 | 45.5 | A
| 2   | 1   | 69.0    | 240.0   | 35.0   | 240.0   | 1 | 3.0  | 50.5 | B
| 3   | 1   | 69.0    | 120.0   | 35.0   | 120.0   | 1 | 3.0  | 40.5 | C
*****
*                               MINIMUM GROUND CLEARANCE = 40.500 FT.                               *
*****

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*****
*                               SUBCONDUCTOR INFORMATION - REGULAR BUNDLES                               *
*****
| BNDL | DIAMETER | SPACING | DC RESIST. | AC RESIST. | AC REACT. |
|  #   | (IN)     | (IN)    | (OHMS/MI) | (OHMS/MI) | (OHMS/MI) |
*****
| 1   | .563     | .000    | .42840    | .43400    | .557000   |
| 2   | .563     | .000    | .42840    | .43400    | .557000   |
| 3   | .563     | .000    | .42840    | .43400    | .557000   |
*****

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*****
*                               *
*                               *
* MAXIMUM SURFACE GRADIENT (kV/cm) *
*                               *
*                               *
*****

```

BNDL #	Type	ACrms	PEAK(+)	PEAK(-)
1	AC	9.67	13.68	-13.68
2	AC	9.32	13.18	-13.18
3	AC	9.44	13.35	-13.35

□

```

*****
*                               *
* AC ELECTRIC FIELD PROFILE *
* at 3.28 feet above ground *
*                               *
*****

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LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	MAXIMUM FIELD (kV/m)	MINOR/MAJOR ELLIPSE AXES (ratio)	VERTICAL (kV/m)	HORIZONTAL (kV/m)	SPACE POTENTIAL (kV)
-300.0	-91.44	.003	.003	.003	.000	.003
-275.0	-83.82	.004	.004	.004	.000	.004

2010PK.001

-250.0	-76.20	.005	.004	.005	.000	.005
-225.0	-68.58	.006	.006	.006	.000	.006
-200.0	-60.96	.007	.007	.007	.000	.007
-175.0	-53.34	.009	.009	.009	.000	.009
-150.0	-45.72	.012	.013	.012	.000	.012
-125.0	-38.10	.016	.019	.016	.001	.016
-100.0	-30.48	.022	.030	.022	.001	.022
-75.0	-22.86	.033	.049	.033	.003	.033
-50.0	-15.24	.054	.085	.054	.006	.054
-25.0	-7.62	.104	.136	.103	.017	.103
.0	.00	.207	.091	.207	.021	.205
25.0	7.62	.150	.084	.149	.020	.148
50.0	15.24	.066	.090	.066	.008	.066
75.0	22.86	.039	.050	.039	.003	.039
100.0	30.48	.026	.026	.026	.001	.026
125.0	38.10	.018	.016	.018	.001	.018
150.0	45.72	.014	.011	.014	.001	.014
175.0	53.34	.010	.008	.010	.000	.010
200.0	60.96	.008	.006	.008	.000	.008
225.0	68.58	.006	.005	.006	.000	.006
250.0	76.20	.005	.004	.005	.000	.005
275.0	83.82	.004	.003	.004	.000	.004
300.0	91.44	.004	.003	.004	.000	.004

AC CURRENTS IN EACH BUNDLE:

BNDL #	----- AC CURRENTS (Amperes) -----			BUNDLE POSITION	
	REAL	IMAGINARY	TOTAL	X-COORD	Y-COORD
1	35.00	.00	35.00	-3.00	45.50
2	-17.50	-30.31	35.00	3.00	50.50
3	-17.50	30.31	35.00	3.00	40.50

*
* MAGNETIC FIELD PROFILE *
* at 3.28 feet above ground *
*

LATERAL DISTANCE		<----- AC MAGNETIC FIELD ----->				
(feet)	(meters)	MAJOR AXIS (mG)	MINOR/ MAJOR (RATIO)	VERTICAL COMP (mG)	HORIZONTAL COMP (mG)	RMS RESULTANT (mG)
-300.0	-91.44	.02	.748	.02	.02	.03
-275.0	-83.82	.02	.744	.02	.02	.03
-250.0	-76.20	.03	.742	.02	.03	.04
-225.0	-68.58	.04	.741	.03	.04	.05
-200.0	-60.96	.05	.741	.04	.04	.06
-175.0	-53.34	.06	.742	.05	.06	.07
-150.0	-45.72	.08	.745	.06	.07	.10
-125.0	-38.10	.11	.749	.09	.10	.14
-100.0	-30.48	.16	.756	.14	.14	.20
-75.0	-22.86	.25	.764	.23	.22	.32
-50.0	-15.24	.44	.766	.42	.35	.55
-25.0	-7.62	.79	.733	.79	.59	.98

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.0	.00	1.15	.649	.80	1.12	1.38
25.0	7.62	.89	.603	.76	.71	1.04
50.0	15.24	.50	.607	.50	.30	.58
75.0	22.86	.28	.622	.27	.20	.34
100.0	30.48	.18	.635	.15	.14	.21
125.0	38.10	.12	.646	.10	.10	.14
150.0	45.72	.08	.655	.07	.08	.10
175.0	53.34	.06	.662	.05	.06	.07
200.0	60.96	.05	.669	.04	.05	.06
225.0	68.58	.04	.675	.03	.04	.05
250.0	76.20	.03	.681	.02	.03	.04
275.0	83.82	.03	.687	.02	.02	.03
300.0	91.44	.02	.693	.02	.02	.03

 *
 * AUDIBLE NOISE *
 * GENERATED ACOUSTIC POWER *
 * (dB above 1uW/m) *
 *

BNDL #	Type	Summer Fair	L5 RAIN	L50 RAIN
1	AC	*****	-93.50	*****
2	AC	*****	-96.12	*****
3	AC	*****	-95.21	*****

 *
 * AUDIBLE NOISE *
 *
 * Microphone is 5.00 feet above ground *
 * Altitude 0. ft *
 *

----- HVTRC CALCULATION METHOD ----->

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	L50 FAIR (dB(A))	L5 RAIN (dB(A))	L50 RAIN (dB(A))	Leq(24) (dB(A))	Ldn (dB(A))
-300.0	-91.44	.0	2.8	.0	.0	.0
-275.0	-83.82	.0	3.3	.0	.0	.0
-250.0	-76.20	.0	3.8	.0	.0	.0
-225.0	-68.58	.0	4.4	.0	.0	.0
-200.0	-60.96	.0	5.1	.0	.0	.0
-175.0	-53.34	.0	5.8	.0	.0	.0
-150.0	-45.72	.0	6.6	.0	.0	.0
-125.0	-38.10	.0	7.4	.0	.0	.0
-100.0	-30.48	.0	8.4	.0	.0	.0
-75.0	-22.86	.0	9.6	.0	.0	.0
-50.0	-15.24	.0	10.9	.0	.0	.0
-25.0	-7.62	.0	12.4	.0	.0	.0
.0	.00	.0	13.2	.0	.0	.0
25.0	7.62	.0	12.4	.0	.0	.0
50.0	15.24	.0	11.0	.0	.0	.0
75.0	22.86	.0	9.6	.0	.0	.0
100.0	30.48	.0	8.5	.0	.0	.0
125.0	38.10	.0	7.5	.0	.0	.0
150.0	45.72	.0	6.6	.0	.0	.0

				2010PK.001		
175.0	53.34	.0	5.8	.0	.0	.0
200.0	60.96	.0	5.1	.0	.0	.0
225.0	68.58	.0	4.5	.0	.0	.0
250.0	76.20	.0	3.9	.0	.0	.0
275.0	83.82	.0	3.3	.0	.0	.0
300.0	91.44	.0	2.8	.0	.0	.0

2020NML.001

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: C:\SDRIVE~1\RFBISC~1\EMF\NWEKO\2020NML.I01

DATE: 7/13/2009 TIME: 14:53

2020- Normal

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*****
*                                     BUNDLE INFORMATION                                     *
*****
| BNDL | CIRC | VOLTAGE | VOLTAGE | LOAD | CURRENT | # | COORDINATES | PHASE |
| #    | #    | (kV)    | (DEG)   | (AMPS) | (DEG)   | OF | (FT) | (FT) |
|-----|-----|-----|-----|-----|-----|---|-----|-----|
| 1    | 1    | 69.0    | .0      | 19.0   | .0      | 1  | -3.0 | 45.5 | A
| 2    | 1    | 69.0    | 240.0   | 19.0   | 240.0   | 1  | 3.0  | 50.5 | B
| 3    | 1    | 69.0    | 120.0   | 19.0   | 120.0   | 1  | 3.0  | 40.5 | C
*****
*                                     MINIMUM GROUND CLEARANCE = 40.500 FT.                                     *
*****

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*****
*                                     SUBCONDUCTOR INFORMATION - REGULAR BUNDLES                                     *
*****
| BNDL | DIAMETER | SPACING | DC RESIST. | AC RESIST. | AC REACT. |
| #    | (IN)     | (IN)    | (OHMS/MI) | (OHMS/MI) | (OHMS/MI) |
|-----|-----|-----|-----|-----|-----|
| 1    | .563    | .000    | .42840    | .43400    | .557000
| 2    | .563    | .000    | .42840    | .43400    | .557000
| 3    | .563    | .000    | .42840    | .43400    | .557000
*****

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*****
*                                     *
*                                     *
* MAXIMUM SURFACE GRADIENT (kV/cm) *
*                                     *
*                                     *
*****

```

BNDL #	Type	ACrms	PEAK(+)	PEAK(-)
1	AC	9.67	13.68	-13.68
2	AC	9.32	13.18	-13.18
3	AC	9.44	13.35	-13.35

□

```

*****
*                                     *
* AC ELECTRIC FIELD PROFILE *
* at 3.28 feet above ground *
*                                     *
*****

```

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	MAXIMUM FIELD (kV/m)	MINOR/MAJOR ELLIPSE AXES (ratio)	VERTICAL (kV/m)	HORIZONTAL (kV/m)	SPACE POTENTIAL (kV)
-300.0	-91.44	.003	.003	.003	.000	.003
-275.0	-83.82	.004	.004	.004	.000	.004

2020NML.001

-250.0	-76.20	.005	.004	.005	.000	.005
-225.0	-68.58	.006	.006	.006	.000	.006
-200.0	-60.96	.007	.007	.007	.000	.007
-175.0	-53.34	.009	.009	.009	.000	.009
-150.0	-45.72	.012	.013	.012	.000	.012
-125.0	-38.10	.016	.019	.016	.001	.016
-100.0	-30.48	.022	.030	.022	.001	.022
-75.0	-22.86	.033	.049	.033	.003	.033
-50.0	-15.24	.054	.085	.054	.006	.054
-25.0	-7.62	.104	.136	.103	.017	.103
.0	.00	.207	.091	.207	.021	.205
25.0	7.62	.150	.084	.149	.020	.148
50.0	15.24	.066	.090	.066	.008	.066
75.0	22.86	.039	.050	.039	.003	.039
100.0	30.48	.026	.026	.026	.001	.026
125.0	38.10	.018	.016	.018	.001	.018
150.0	45.72	.014	.011	.014	.001	.014
175.0	53.34	.010	.008	.010	.000	.010
200.0	60.96	.008	.006	.008	.000	.008
225.0	68.58	.006	.005	.006	.000	.006
250.0	76.20	.005	.004	.005	.000	.005
275.0	83.82	.004	.003	.004	.000	.004
300.0	91.44	.004	.003	.004	.000	.004

AC CURRENTS IN EACH BUNDLE:

BNDL #	----- AC CURRENTS (Amperes) -----			BUNDLE POSITION	
	REAL	IMAGINARY	TOTAL	X-COORD	Y-COORD
1	19.00	.00	19.00	-3.00	45.50
2	-9.50	-16.45	19.00	3.00	50.50
3	-9.50	16.45	19.00	3.00	40.50

*
* MAGNETIC FIELD PROFILE *
* at 3.28 feet above ground *
*

<----- AC MAGNETIC FIELD ----->						
LATERAL DISTANCE (feet) (meters)	MAJOR AXIS (mG)	MINOR/ MAJOR (RATIO)	VERTICAL COMP (mG)	HORIZONTAL COMP (mG)	RMS RESULTANT (mG)	
-300.0	-91.44	.01	.748	.01	.01	.01
-275.0	-83.82	.01	.744	.01	.01	.02
-250.0	-76.20	.02	.742	.01	.02	.02
-225.0	-68.58	.02	.741	.02	.02	.02
-200.0	-60.96	.02	.741	.02	.02	.03
-175.0	-53.34	.03	.742	.03	.03	.04
-150.0	-45.72	.04	.745	.03	.04	.05
-125.0	-38.10	.06	.749	.05	.05	.07
-100.0	-30.48	.09	.756	.08	.08	.11
-75.0	-22.86	.14	.764	.13	.12	.17
-50.0	-15.24	.24	.766	.23	.19	.30
-25.0	-7.62	.43	.733	.43	.32	.53

2020NML.001

.0	.00	.63	.649	.44	.61	.75
25.0	7.62	.48	.603	.41	.39	.57
50.0	15.24	.27	.607	.27	.16	.32
75.0	22.86	.15	.622	.14	.11	.18
100.0	30.48	.10	.635	.08	.08	.11
125.0	38.10	.06	.646	.05	.06	.08
150.0	45.72	.05	.655	.04	.04	.05
175.0	53.34	.03	.662	.03	.03	.04
200.0	60.96	.03	.669	.02	.02	.03
225.0	68.58	.02	.675	.02	.02	.02
250.0	76.20	.02	.681	.01	.02	.02
275.0	83.82	.01	.687	.01	.01	.02
300.0	91.44	.01	.693	.01	.01	.01

 *
 * AUDIBLE NOISE *
 * GENERATED ACOUSTIC POWER *
 * (dB above 1uW/m) *
 *

BNDL #	Type	Summer Fair	L5 RAIN	L50 RAIN
1	AC	*****	-93.50	*****
2	AC	*****	-96.12	*****
3	AC	*****	-95.21	*****

 *
 * AUDIBLE NOISE *
 *
 * Microphone is 5.00 feet above ground *
 * Altitude 0. ft *
 *

<----- HVTRC CALCULATION METHOD ----->

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	L50 FAIR (dB(A))	L5 RAIN (dB(A))	L50 RAIN (dB(A))	Leq(24) (dB(A))	Ldn (dB(A))
-300.0	-91.44	.0	2.8	.0	.0	.0
-275.0	-83.82	.0	3.3	.0	.0	.0
-250.0	-76.20	.0	3.8	.0	.0	.0
-225.0	-68.58	.0	4.4	.0	.0	.0
-200.0	-60.96	.0	5.1	.0	.0	.0
-175.0	-53.34	.0	5.8	.0	.0	.0
-150.0	-45.72	.0	6.6	.0	.0	.0
-125.0	-38.10	.0	7.4	.0	.0	.0
-100.0	-30.48	.0	8.4	.0	.0	.0
-75.0	-22.86	.0	9.6	.0	.0	.0
-50.0	-15.24	.0	10.9	.0	.0	.0
-25.0	-7.62	.0	12.4	.0	.0	.0
.0	.00	.0	13.2	.0	.0	.0
25.0	7.62	.0	12.4	.0	.0	.0
50.0	15.24	.0	11.0	.0	.0	.0
75.0	22.86	.0	9.6	.0	.0	.0
100.0	30.48	.0	8.5	.0	.0	.0
125.0	38.10	.0	7.5	.0	.0	.0
150.0	45.72	.0	6.6	.0	.0	.0

2020NML.001						
175.0	53.34	.0	5.8	.0	.0	.0
200.0	60.96	.0	5.1	.0	.0	.0
225.0	68.58	.0	4.5	.0	.0	.0
250.0	76.20	.0	3.9	.0	.0	.0
275.0	83.82	.0	3.3	.0	.0	.0
300.0	91.44	.0	2.8	.0	.0	.0

2020PK.001

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: C:\SDRIVE~1\RFBISC~1\EMF\NWECO\2020PK.I01

DATE: 7/13/2009 TIME: 14:54

2020- Normal PEAK

```

*****
*                                     BUNDLE INFORMATION                                     *
*****
| BNDL | CIRC | VOLTAGE | VOLTAGE | LOAD | CURRENT | # | COORDINATES | PHASE |
|  #   |  #   | (KV)    | (DEG)   | (AMPS) | (DEG)   | OF | X | Y |
|      |      |          |          |          |          | COND | (FT) | (FT) |
*****
| 1 | 1 | 69.0 | .0 | 45.0 | .0 | 1 | -3.0 | 45.5 | A |
| 2 | 1 | 69.0 | 240.0 | 45.0 | 240.0 | 1 | 3.0 | 50.5 | B |
| 3 | 1 | 69.0 | 120.0 | 45.0 | 120.0 | 1 | 3.0 | 40.5 | C |
*****
*                                     MINIMUM GROUND CLEARANCE = 40.500 FT.                                     *
*****

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```

*****
*                                     SUBCONDUCTOR INFORMATION - REGULAR BUNDLES                                     *
*****
| BNDL | DIAMETER | SPACING | DC RESIST. | AC RESIST. | AC REACT. |
|  #   | (IN)     | (IN)    | (OHMS/MI) | (OHMS/MI) | (OHMS/MI) |
*****
| 1 | .563 | .000 | .42840 | .43400 | .557000 |
| 2 | .563 | .000 | .42840 | .43400 | .557000 |
| 3 | .563 | .000 | .42840 | .43400 | .557000 |
*****

```

```

*****
*
* MAXIMUM SURFACE GRADIENT (kV/cm)
*
*****

```

BNDL #	Type	ACrms	PEAK(+)	PEAK(-)
1	AC	9.67	13.68	-13.68
2	AC	9.32	13.18	-13.18
3	AC	9.44	13.35	-13.35

□

```

*****
*
* AC ELECTRIC FIELD PROFILE
* at 3.28 feet above ground
*
*****

```

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	MAXIMUM FIELD (kV/m)	MINOR/MAJOR ELLIPSE AXES (ratio)	VERTICAL (kV/m)	HORIZONTAL (kV/m)	SPACE POTENTIAL (kV)
-300.0	-91.44	.003	.003	.003	.000	.003
-275.0	-83.82	.004	.004	.004	.000	.004

2020PK.001

-250.0	-76.20	.005	.004	.005	.000	.005
-225.0	-68.58	.006	.006	.006	.000	.006
-200.0	-60.96	.007	.007	.007	.000	.007
-175.0	-53.34	.009	.009	.009	.000	.009
-150.0	-45.72	.012	.013	.012	.000	.012
-125.0	-38.10	.016	.019	.016	.001	.016
-100.0	-30.48	.022	.030	.022	.001	.022
-75.0	-22.86	.033	.049	.033	.003	.033
-50.0	-15.24	.054	.085	.054	.006	.054
-25.0	-7.62	.104	.136	.103	.017	.103
.0	.00	.207	.091	.207	.021	.205
25.0	7.62	.150	.084	.149	.020	.148
50.0	15.24	.066	.090	.066	.008	.066
75.0	22.86	.039	.050	.039	.003	.039
100.0	30.48	.026	.026	.026	.001	.026
125.0	38.10	.018	.016	.018	.001	.018
150.0	45.72	.014	.011	.014	.001	.014
175.0	53.34	.010	.008	.010	.000	.010
200.0	60.96	.008	.006	.008	.000	.008
225.0	68.58	.006	.005	.006	.000	.006
250.0	76.20	.005	.004	.005	.000	.005
275.0	83.82	.004	.003	.004	.000	.004
300.0	91.44	.004	.003	.004	.000	.004

AC CURRENTS IN EACH BUNDLE:

BNDL #	----- AC CURRENTS (Amperes) -----			BUNDLE POSITION	
	REAL	IMAGINARY	TOTAL	X-COORD	Y-COORD
1	45.00	.00	45.00	-3.00	45.50
2	-22.50	-38.97	45.00	3.00	50.50
3	-22.50	38.97	45.00	3.00	40.50

*
* MAGNETIC FIELD PROFILE *
* at 3.28 feet above ground *
*

<----- AC MAGNETIC FIELD ----->						
LATERAL DISTANCE (feet)	(meters)	MAJOR AXIS (mG)	MINOR/ MAJOR (RATIO)	VERTICAL COMP (mG)	HORIZONTAL COMP (mG)	RMS RESULTANT (mG)
-300.0	-91.44	.03	.748	.02	.03	.03
-275.0	-83.82	.03	.744	.02	.03	.04
-250.0	-76.20	.04	.742	.03	.04	.05
-225.0	-68.58	.05	.741	.04	.05	.06
-200.0	-60.96	.06	.741	.05	.06	.07
-175.0	-53.34	.08	.742	.06	.07	.09
-150.0	-45.72	.10	.745	.08	.09	.13
-125.0	-38.10	.14	.749	.12	.13	.17
-100.0	-30.48	.21	.756	.18	.18	.26
-75.0	-22.86	.32	.764	.30	.28	.41
-50.0	-15.24	.56	.766	.54	.45	.71
-25.0	-7.62	1.02	.733	1.01	.76	1.26

2020PK.001

.0	.00	1.48	.649	1.03	1.44	1.77
25.0	7.62	1.15	.603	.98	.92	1.34
50.0	15.24	.64	.607	.64	.39	.75
75.0	22.86	.37	.622	.34	.26	.43
100.0	30.48	.23	.635	.20	.19	.27
125.0	38.10	.15	.646	.12	.13	.18
150.0	45.72	.11	.655	.08	.10	.13
175.0	53.34	.08	.662	.06	.07	.10
200.0	60.96	.06	.669	.05	.06	.07
225.0	68.58	.05	.675	.04	.05	.06
250.0	76.20	.04	.681	.03	.04	.05
275.0	83.82	.03	.687	.02	.03	.04
300.0	91.44	.03	.693	.02	.03	.03

 *
 * AUDIBLE NOISE *
 * GENERATED ACOUSTIC POWER *
 * (dB above 1uW/m) *
 *

BNDL #	Type	Summer Fair	L5 RAIN	L50 RAIN
1	AC	*****	-93.50	*****
2	AC	*****	-96.12	*****
3	AC	*****	-95.21	*****

 *
 * AUDIBLE NOISE *
 *
 * Microphone is 5.00 feet above ground *
 * Altitude 0. ft *
 *

<----- HVTRC CALCULATION METHOD ----->

LATERAL DISTANCE (feet)	(meters)	L50 FAIR (dB(A))	L5 RAIN (dB(A))	L50 RAIN (dB(A))	Leq(24) (dB(A))	Ldn (dB(A))
-300.0	-91.44	.0	2.8	.0	.0	.0
-275.0	-83.82	.0	3.3	.0	.0	.0
-250.0	-76.20	.0	3.8	.0	.0	.0
-225.0	-68.58	.0	4.4	.0	.0	.0
-200.0	-60.96	.0	5.1	.0	.0	.0
-175.0	-53.34	.0	5.8	.0	.0	.0
-150.0	-45.72	.0	6.6	.0	.0	.0
-125.0	-38.10	.0	7.4	.0	.0	.0
-100.0	-30.48	.0	8.4	.0	.0	.0
-75.0	-22.86	.0	9.6	.0	.0	.0
-50.0	-15.24	.0	10.9	.0	.0	.0
-25.0	-7.62	.0	12.4	.0	.0	.0
.0	.00	.0	13.2	.0	.0	.0
25.0	7.62	.0	12.4	.0	.0	.0
50.0	15.24	.0	11.0	.0	.0	.0
75.0	22.86	.0	9.6	.0	.0	.0
100.0	30.48	.0	8.5	.0	.0	.0
125.0	38.10	.0	7.5	.0	.0	.0
150.0	45.72	.0	6.6	.0	.0	.0

2020PK.001						
175.0	53.34	.0	5.8	.0	.0	.0
200.0	60.96	.0	5.1	.0	.0	.0
225.0	68.58	.0	4.5	.0	.0	.0
250.0	76.20	.0	3.9	.0	.0	.0
275.0	83.82	.0	3.3	.0	.0	.0
300.0	91.44	.0	2.8	.0	.0	.0

2010DNML.001

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: C:\SDRIVE~1\RFBISC~1\EMF\NWECO\2010DNML.I01

DATE: 7/13/2009 TIME: 15:50

2010- Normal w/distribution

```
*****
*                                     BUNDLE INFORMATION                                     *
*****
```

BNDL #	CIRC #	VOLTAGE (KV)	VOLTAGE ANGLE (DEG)	LOAD (AMPS)	CURRENT ANGLE (DEG)	# OF COND	COORDINATES X (FT)	COORDINATES Y (FT)	PHASE
1	1	69.0	.0	15.0	.0	1	-3.0	45.5	A
2	1	69.0	240.0	15.0	240.0	1	3.0	50.5	B
3	1	69.0	120.0	15.0	120.0	1	3.0	40.5	C
4	1	12.0	.0	12.0	.0	1	-3.7	32.5	A
5	1	12.0	240.0	12.0	240.0	1	-1.7	32.5	B
6	1	12.0	120.0	12.0	120.0	1	3.7	32.5	C
7	1	.0	.0	.0	.0	1	-1.0	27.5	GND

```
*****
*                                     MINIMUM GROUND CLEARANCE = 27.500 FT.                                     *
*****
```

```
*****
*                                     SUBCONDUCTOR INFORMATION - REGULAR BUNDLES                                     *
*****
```

BNDL #	DIAMETER (IN)	SPACING (IN)	DC RESIST. (OHMS/MI)	AC RESIST. (OHMS/MI)	AC REACT. (OHMS/MI)
1	.563	.000	.42840	.43400	.557000
2	.563	.000	.42840	.43400	.557000
3	.563	.000	.42840	.43400	.557000
4	.563	.000	.42840	.43400	.557000
5	.563	.000	.42840	.43400	.557000
6	.563	.000	.42840	.43400	.557000
7	.563	.000	.42840	.43400	.557000

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*****
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*****
*                                     *
* MAXIMUM SURFACE GRADIENT (KV/CM) *
*                                     *
*****
```

BNDL #	Type	ACrms	PEAK(+)	PEAK(-)
1	AC	9.64	13.63	-13.63
2	AC	9.24	13.06	-13.06
3	AC	9.62	13.61	-13.61
4	AC	1.83	2.59	-2.59
5	AC	2.39	3.38	-3.38
6	AC	.99	1.40	-1.40
7	Ground Wire	.16	.22	-.22

*
 * AC ELECTRIC FIELD PROFILE *
 * at 3.28 feet above ground *
 *

LATERAL DISTANCE (feet) (meters)	MAXIMUM FIELD (kv/m)	MINOR/MAJOR ELLIPSE AXES (ratio)	VERTICAL (kv/m)	HORIZONTAL (kv/m)	SPACE POTENTIAL (kv)	
-300.0	-91.44	.004	.002	.004	.000	.004
-275.0	-83.82	.005	.003	.005	.000	.005
-250.0	-76.20	.006	.004	.006	.000	.006
-225.0	-68.58	.008	.004	.008	.000	.008
-200.0	-60.96	.010	.005	.010	.000	.010
-175.0	-53.34	.012	.007	.012	.000	.012
-150.0	-45.72	.016	.010	.016	.001	.016
-125.0	-38.10	.022	.013	.022	.001	.022
-100.0	-30.48	.032	.019	.032	.002	.032
-75.0	-22.86	.049	.028	.049	.003	.049
-50.0	-15.24	.079	.039	.079	.006	.079
-25.0	-7.62	.104	.064	.104	.007	.103
.0	.00	.072	.309	.070	.028	.069
25.0	7.62	.120	.085	.120	.012	.119
50.0	15.24	.070	.077	.069	.007	.069
75.0	22.86	.045	.040	.045	.003	.045
100.0	30.48	.031	.022	.031	.002	.031
125.0	38.10	.022	.013	.022	.001	.022
150.0	45.72	.016	.009	.016	.001	.016
175.0	53.34	.012	.007	.012	.000	.012
200.0	60.96	.010	.005	.010	.000	.010
225.0	68.58	.008	.004	.008	.000	.008
250.0	76.20	.006	.003	.006	.000	.006
275.0	83.82	.005	.003	.005	.000	.005
300.0	91.44	.005	.002	.005	.000	.005

 AC CURRENTS IN EACH BUNDLE:

BNDL #	----- AC CURRENTS (Amperes) -----			BUNDLE POSITION	
	REAL	IMAGINARY	TOTAL	X-COORD	Y-COORD
1	15.00	.00	15.00	-3.00	45.50
2	-7.50	-12.99	15.00	3.00	50.50
3	-7.50	12.99	15.00	3.00	40.50
4	12.00	.00	12.00	-3.67	32.50
5	-6.00	-10.39	12.00	-1.67	32.50
6	-6.00	10.39	12.00	3.67	32.50
7	.08	-.28	.29	-1.00	27.50

 * MAGNETIC FIELD PROFILE *
 * at 3.28 feet above ground *
 *

2010DNML.001

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	MAJOR AXIS (mG)	MINOR/MAJOR (RATIO)	VERTICAL COMP (mG)	HORIZONTAL COMP (mG)	RMS RESULTANT (mG)
-300.0	-91.44	.02	.336	.01	.01	.02
-275.0	-83.82	.02	.355	.02	.01	.02
-250.0	-76.20	.02	.374	.02	.02	.02
-225.0	-68.58	.03	.393	.02	.02	.03
-200.0	-60.96	.03	.412	.03	.02	.04
-175.0	-53.34	.04	.430	.03	.03	.04
-150.0	-45.72	.05	.448	.04	.04	.06
-125.0	-38.10	.07	.462	.05	.06	.08
-100.0	-30.48	.10	.470	.07	.09	.12
-75.0	-22.86	.16	.466	.09	.15	.18
-50.0	-15.24	.29	.435	.13	.29	.31
-25.0	-7.62	.57	.359	.35	.50	.61
.0	.00	.94	.308	.91	.37	.98
25.0	7.62	.62	.415	.26	.62	.67
50.0	15.24	.29	.539	.25	.23	.33
75.0	22.86	.15	.630	.15	.10	.18
100.0	30.48	.09	.700	.09	.06	.11
125.0	38.10	.06	.760	.06	.04	.07
150.0	45.72	.04	.814	.04	.03	.05
175.0	53.34	.03	.867	.03	.02	.04
200.0	60.96	.02	.918	.02	.02	.03
225.0	68.58	.02	.966	.02	.02	.02
250.0	76.20	.01	.962	.01	.01	.02
275.0	83.82	.01	.916	.01	.01	.01
300.0	91.44	.01	.870	.01	.01	.01

 *
 * AUDIBLE NOISE *
 * GENERATED ACOUSTIC POWER *
 * (dB above 1uw/m) *
 *

BNDL #	Type	Summer Fair	L5 RAIN	L50 RAIN
1	AC	*****	-93.78	*****
2	AC	*****	-96.77	*****
3	AC	*****	-93.89	*****
4	AC	*****	*****	*****
5	AC	*****	*****	*****
6	AC	*****	*****	*****
7	Ground wire	*****	*****	*****

□

 *
 * AUDIBLE NOISE *
 *
 * Microphone is 5.00 feet above ground *
 * Altitude 0. ft *
 *

<----- HVTRC CALCULATION METHOD ----->

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	L50 FAIR (dB(A))	L5 RAIN (dB(A))	L50 RAIN (dB(A))	Leq(24) (dB(A))	Ldn (dB(A))
-------------------------	---------------------------	------------------	-----------------	------------------	-----------------	-------------

2010DNML.O01

-300.0	-91.44	.0	3.0	.0	.0	.0
-275.0	-83.82	.0	3.5	.0	.0	.0
-250.0	-76.20	.0	4.0	.0	.0	.0
-225.0	-68.58	.0	4.6	.0	.0	.0
-200.0	-60.96	.0	5.3	.0	.0	.0
-175.0	-53.34	.0	6.0	.0	.0	.0
-150.0	-45.72	.0	6.8	.0	.0	.0
-125.0	-38.10	.0	7.6	.0	.0	.0
-100.0	-30.48	.0	8.6	.0	.0	.0
-75.0	-22.86	.0	9.8	.0	.0	.0
-50.0	-15.24	.0	11.2	.0	.0	.0
-25.0	-7.62	.0	12.6	.0	.0	.0
.0	.00	.0	13.4	.0	.0	.0
25.0	7.62	.0	12.7	.0	.0	.0
50.0	15.24	.0	11.2	.0	.0	.0
75.0	22.86	.0	9.9	.0	.0	.0
100.0	30.48	.0	8.7	.0	.0	.0
125.0	38.10	.0	7.7	.0	.0	.0
150.0	45.72	.0	6.8	.0	.0	.0
175.0	53.34	.0	6.0	.0	.0	.0
200.0	60.96	.0	5.3	.0	.0	.0
225.0	68.58	.0	4.7	.0	.0	.0
250.0	76.20	.0	4.1	.0	.0	.0
275.0	83.82	.0	3.5	.0	.0	.0
300.0	91.44	.0	3.0	.0	.0	.0

2010DPK.001

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: C:\SDRIVE~1\RFBISC~1\EMF\NWEKO\2010DPK.I01

DATE: 7/13/2009 TIME: 16: 0

2010- Normal Peak w/distributi

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*****
*                                     BUNDLE INFORMATION                                     *
*****
| BNDL # | CIRC # | VOLTAGE (kV) | VOLTAGE ANGLE (DEG) | LOAD (AMPS) | CURRENT ANGLE (DEG) | # OF COND | COORDINATES X (FT) | Y (FT) | PHASE |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 1 | 69.0 | .0 | 35.0 | .0 | 1 | -3.0 | 45.5 | A |
| 2 | 1 | 69.0 | 240.0 | 35.0 | 240.0 | 1 | 3.0 | 50.5 | B |
| 3 | 1 | 69.0 | 120.0 | 35.0 | 120.0 | 1 | 3.0 | 40.5 | C |
| 4 | 1 | 12.0 | .0 | 23.0 | .0 | 1 | -3.7 | 32.5 | A |
| 5 | 1 | 12.0 | 240.0 | 23.0 | 240.0 | 1 | -1.7 | 32.5 | B |
| 6 | 1 | 12.0 | 120.0 | 23.0 | 120.0 | 1 | 3.7 | 32.5 | C |
| 7 | 1 | .0 | .0 | .0 | .0 | 1 | -1.0 | 27.5 | GND |
*****
*                                     MINIMUM GROUND CLEARANCE = 27.500 FT.                                     *
*****

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*****
*                                     SUBCONDUCTOR INFORMATION - REGULAR BUNDLES                                     *
*****
| BNDL # | DIAMETER (IN) | SPACING (IN) | DC RESIST. (OHMS/MI) | AC RESIST. (OHMS/MI) | AC REACT. (OHMS/MI) |
|-----|-----|-----|-----|-----|-----|
| 1 | .563 | .000 | .42840 | .43400 | .557000 |
| 2 | .563 | .000 | .42840 | .43400 | .557000 |
| 3 | .563 | .000 | .42840 | .43400 | .557000 |
| 4 | .563 | .000 | .42840 | .43400 | .557000 |
| 5 | .563 | .000 | .42840 | .43400 | .557000 |
| 6 | .563 | .000 | .42840 | .43400 | .557000 |
| 7 | .563 | .000 | .42840 | .43400 | .557000 |
*****

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*****
*                                     *
*                                     *
* MAXIMUM SURFACE GRADIENT (kV/cm) *
*                                     *
*****

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BNDL #	Type	ACrms	PEAK(+)	PEAK(-)
1	AC	9.64	13.63	-13.63
2	AC	9.24	13.06	-13.06
3	AC	9.62	13.61	-13.61
4	AC	1.83	2.59	-2.59
5	AC	2.39	3.38	-3.38
6	AC	.99	1.40	-1.40
7	Ground wire	.16	.22	-.22

□

*
* AC ELECTRIC FIELD PROFILE *
* at 3.28 feet above ground *
*

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	MAXIMUM FIELD (kv/m)	MINOR/MAJOR ELLIPSE AXES (ratio)	VERTICAL (kv/m)	HORIZONTAL (kv/m)	SPACE POTENTIAL (kv)
-300.0	-91.44	.004	.002	.004	.000	.004
-275.0	-83.82	.005	.003	.005	.000	.005
-250.0	-76.20	.006	.004	.006	.000	.006
-225.0	-68.58	.008	.004	.008	.000	.008
-200.0	-60.96	.010	.005	.010	.000	.010
-175.0	-53.34	.012	.007	.012	.000	.012
-150.0	-45.72	.016	.010	.016	.001	.016
-125.0	-38.10	.022	.013	.022	.001	.022
-100.0	-30.48	.032	.019	.032	.002	.032
-75.0	-22.86	.049	.028	.049	.003	.049
-50.0	-15.24	.079	.039	.079	.006	.079
-25.0	-7.62	.104	.064	.104	.007	.103
.0	.00	.072	.309	.070	.028	.069
25.0	7.62	.120	.085	.120	.012	.119
50.0	15.24	.070	.077	.069	.007	.069
75.0	22.86	.045	.040	.045	.003	.045
100.0	30.48	.031	.022	.031	.002	.031
125.0	38.10	.022	.013	.022	.001	.022
150.0	45.72	.016	.009	.016	.001	.016
175.0	53.34	.012	.007	.012	.000	.012
200.0	60.96	.010	.005	.010	.000	.010
225.0	68.58	.008	.004	.008	.000	.008
250.0	76.20	.006	.003	.006	.000	.006
275.0	83.82	.005	.003	.005	.000	.005
300.0	91.44	.005	.002	.005	.000	.005

AC CURRENTS IN EACH BUNDLE:

BNDL #	----- AC CURRENTS (Amperes) -----			BUNDLE POSITION	
	REAL	IMAGINARY	TOTAL	X-COORD	Y-COORD
1	35.00	.00	35.00	-3.00	45.50
2	-17.50	-30.31	35.00	3.00	50.50
3	-17.50	30.31	35.00	3.00	40.50
4	23.00	.00	23.00	-3.67	32.50
5	-11.50	-19.92	23.00	-1.67	32.50
6	-11.50	19.92	23.00	3.67	32.50
7	.23	-.74	.77	-1.00	27.50

*
* MAGNETIC FIELD PROFILE *
* at 3.28 feet above ground *
*

2010DPK.001

LATERAL DISTANCE (feet) (meters)	MAJOR AXIS (mG)	MINOR/MAJOR (RATIO)	VERTICAL COMP (mG)	HORIZONTAL COMP (mG)	RMS RESULTANT (mG)
-300.0	-91.44	.04	.325	.03	.04
-275.0	-83.82	.04	.346	.04	.05
-250.0	-76.20	.05	.368	.04	.06
-225.0	-68.58	.06	.391	.05	.07
-200.0	-60.96	.07	.414	.06	.08
-175.0	-53.34	.09	.437	.07	.10
-150.0	-45.72	.12	.460	.09	.13
-125.0	-38.10	.16	.480	.12	.18
-100.0	-30.48	.23	.495	.15	.26
-75.0	-22.86	.36	.497	.21	.40
-50.0	-15.24	.62	.473	.30	.69
-25.0	-7.62	1.21	.402	.77	1.31
.0	.00	1.95	.352	1.87	2.06
25.0	7.62	1.30	.464	.62	1.43
50.0	15.24	.62	.599	.54	.72
75.0	22.86	.32	.703	.31	.39
100.0	30.48	.18	.788	.18	.23
125.0	38.10	.12	.863	.12	.15
150.0	45.72	.08	.929	.08	.11
175.0	53.34	.06	.953	.06	.08
200.0	60.96	.05	.904	.04	.06
225.0	68.58	.04	.846	.03	.05
250.0	76.20	.03	.792	.03	.04
275.0	83.82	.03	.742	.02	.03
300.0	91.44	.02	.696	.02	.03

 *
 * AUDIBLE NOISE *
 * GENERATED ACOUSTIC POWER *
 * (dB above 1uw/m) *
 *

BNDL #	Type	Summer Fair	L5 RAIN	L50 RAIN
1	AC	*****	-93.78	*****
2	AC	*****	-96.77	*****
3	AC	*****	-93.89	*****
4	AC	*****	*****	*****
5	AC	*****	*****	*****
6	AC	*****	*****	*****
7	Ground Wire	*****	*****	*****

 *
 * AUDIBLE NOISE *
 *
 * Microphone is 5.00 feet above ground *
 * Altitude 0. ft *
 *

<----- HVTRC CALCULATION METHOD ----->

LATERAL DISTANCE (feet) (meters)	L50 FAIR (dB(A))	L5 RAIN (dB(A))	L50 RAIN (dB(A))	Leq(24) (dB(A))	Ldn (dB(A))
-------------------------------------	---------------------	--------------------	---------------------	--------------------	----------------

2010DPK.001

-300.0	-91.44	.0	3.0	.0	.0	.0
-275.0	-83.82	.0	3.5	.0	.0	.0
-250.0	-76.20	.0	4.0	.0	.0	.0
-225.0	-68.58	.0	4.6	.0	.0	.0
-200.0	-60.96	.0	5.3	.0	.0	.0
-175.0	-53.34	.0	6.0	.0	.0	.0
-150.0	-45.72	.0	6.8	.0	.0	.0
-125.0	-38.10	.0	7.6	.0	.0	.0
-100.0	-30.48	.0	8.6	.0	.0	.0
-75.0	-22.86	.0	9.8	.0	.0	.0
-50.0	-15.24	.0	11.2	.0	.0	.0
-25.0	-7.62	.0	12.6	.0	.0	.0
.0	.00	.0	13.4	.0	.0	.0
25.0	7.62	.0	12.7	.0	.0	.0
50.0	15.24	.0	11.2	.0	.0	.0
75.0	22.86	.0	9.9	.0	.0	.0
100.0	30.48	.0	8.7	.0	.0	.0
125.0	38.10	.0	7.7	.0	.0	.0
150.0	45.72	.0	6.8	.0	.0	.0
175.0	53.34	.0	6.0	.0	.0	.0
200.0	60.96	.0	5.3	.0	.0	.0
225.0	68.58	.0	4.7	.0	.0	.0
250.0	76.20	.0	4.1	.0	.0	.0
275.0	83.82	.0	3.5	.0	.0	.0
300.0	91.44	.0	3.0	.0	.0	.0

2020DNML.001

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: C:\SDRIVE~1\RFBISC~1\EMF\NWECO\2020DNML.I01

DATE: 7/13/2009 TIME: 16: 8

2020- Normal w/distribution

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*****
*                               BUNDLE INFORMATION                               *
*****
```

BNDL #	CIRC #	VOLTAGE		LOAD (AMPS)	CURRENT		# OF COND	COORDINATES		PHASE
		(kv)	ANGLE (DEG)		ANGLE (DEG)			X (FT)	Y (FT)	
1	1	69.0	.0	19.0	.0	1	-3.0	45.5	A	
2	1	69.0	240.0	19.0	240.0	1	3.0	50.5	B	
3	1	69.0	120.0	19.0	120.0	1	3.0	40.5	C	
4	1	12.0	.0	15.0	.0	1	-3.7	32.5	A	
5	1	12.0	240.0	15.0	240.0	1	-1.7	32.5	B	
6	1	12.0	120.0	15.0	120.0	1	3.7	32.5	C	
7	1	.0	.0	.0	.0	1	-1.0	27.5	GND	

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*****
*                               MINIMUM GROUND CLEARANCE = 27.500 FT.                               *
*****
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*****
*                               SUBCONDUCTOR INFORMATION - REGULAR BUNDLES                               *
*****
```

BNDL #	DIAMETER (IN)	SPACING (IN)	DC RESIST. (OHMS/MI)	AC RESIST. (OHMS/MI)	AC REACT. (OHMS/MI)
1	.563	.000	.42840	.43400	.557000
2	.563	.000	.42840	.43400	.557000
3	.563	.000	.42840	.43400	.557000
4	.563	.000	.42840	.43400	.557000
5	.563	.000	.42840	.43400	.557000
6	.563	.000	.42840	.43400	.557000
7	.563	.000	.42840	.43400	.557000

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*****
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*****
*                               *
*          MAXIMUM SURFACE GRADIENT (kv/cm)          *
*                               *
*****
```

BNDL #	Type	ACrms	PEAK(+)	PEAK(-)
1	AC	9.64	13.63	-13.63
2	AC	9.24	13.06	-13.06
3	AC	9.62	13.61	-13.61
4	AC	1.83	2.59	-2.59
5	AC	2.39	3.38	-3.38
6	AC	.99	1.40	-1.40
7	Ground wire	.16	.22	-.22

2020DNML.001

*
* AC ELECTRIC FIELD PROFILE *
* at 3.28 feet above ground *
*

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	MAXIMUM FIELD (kv/m)	MINOR/MAJOR ELLIPSE AXES (ratio)	VERTICAL (kv/m)	HORIZONTAL (kv/m)	SPACE POTENTIAL (kv)
-300.0	-91.44	.004	.002	.004	.000	.004
-275.0	-83.82	.005	.003	.005	.000	.005
-250.0	-76.20	.006	.004	.006	.000	.006
-225.0	-68.58	.008	.004	.008	.000	.008
-200.0	-60.96	.010	.005	.010	.000	.010
-175.0	-53.34	.012	.007	.012	.000	.012
-150.0	-45.72	.016	.010	.016	.001	.016
-125.0	-38.10	.022	.013	.022	.001	.022
-100.0	-30.48	.032	.019	.032	.002	.032
-75.0	-22.86	.049	.028	.049	.003	.049
-50.0	-15.24	.079	.039	.079	.006	.079
-25.0	-7.62	.104	.064	.104	.007	.103
.0	.00	.072	.309	.070	.028	.069
25.0	7.62	.120	.085	.120	.012	.119
50.0	15.24	.070	.077	.069	.007	.069
75.0	22.86	.045	.040	.045	.003	.045
100.0	30.48	.031	.022	.031	.002	.031
125.0	38.10	.022	.013	.022	.001	.022
150.0	45.72	.016	.009	.016	.001	.016
175.0	53.34	.012	.007	.012	.000	.012
200.0	60.96	.010	.005	.010	.000	.010
225.0	68.58	.008	.004	.008	.000	.008
250.0	76.20	.006	.003	.006	.000	.006
275.0	83.82	.005	.003	.005	.000	.005
300.0	91.44	.005	.002	.005	.000	.005

AC CURRENTS IN EACH BUNDLE:

BNDL #	----- AC CURRENTS (Amperes) -----			BUNDLE POSITION	
	REAL	IMAGINARY	TOTAL	X-COORD	Y-COORD
1	19.00	.00	19.00	-3.00	45.50
2	-9.50	-16.45	19.00	3.00	50.50
3	-9.50	16.45	19.00	3.00	40.50
4	15.00	.00	15.00	-3.67	32.50
5	-7.50	-12.99	15.00	-1.67	32.50
6	-7.50	12.99	15.00	3.67	32.50
7	.10	-.35	.37	-1.00	27.50

*
* MAGNETIC FIELD PROFILE *
* at 3.28 feet above ground *
*

<----- AC MAGNETIC FIELD ----->

2020DNML.001

LATERAL DISTANCE (feet) (meters)		MAJOR AXIS (mG)	MINOR/MAJOR (RATIO)	VERTICAL COMP (mG)	HORIZONTAL COMP (mG)	RMS RESULTANT (mG)
-300.0	-91.44	.02	.335	.02	.01	.02
-275.0	-83.82	.02	.354	.02	.02	.03
-250.0	-76.20	.03	.373	.02	.02	.03
-225.0	-68.58	.03	.393	.03	.02	.04
-200.0	-60.96	.04	.412	.03	.03	.04
-175.0	-53.34	.05	.431	.04	.04	.06
-150.0	-45.72	.07	.449	.05	.05	.07
-125.0	-38.10	.09	.463	.07	.08	.10
-100.0	-30.48	.13	.472	.09	.12	.15
-75.0	-22.86	.21	.468	.12	.19	.23
-50.0	-15.24	.36	.437	.16	.36	.40
-25.0	-7.62	.72	.362	.44	.63	.77
.0	.00	1.18	.311	1.14	.47	1.23
25.0	7.62	.78	.418	.34	.78	.85
50.0	15.24	.37	.543	.31	.28	.42
75.0	22.86	.19	.635	.19	.13	.23
100.0	30.48	.11	.706	.11	.08	.14
125.0	38.10	.07	.767	.07	.05	.09
150.0	45.72	.05	.823	.05	.04	.06
175.0	53.34	.03	.877	.03	.03	.05
200.0	60.96	.03	.930	.03	.02	.04
225.0	68.58	.02	.978	.02	.02	.03
250.0	76.20	.02	.953	.02	.02	.02
275.0	83.82	.01	.904	.01	.01	.02
300.0	91.44	.01	.858	.01	.01	.02

 *
 * AUDIBLE NOISE *
 * GENERATED ACOUSTIC POWER *
 * (dB above 1uW/m) *
 *

BNDL #	Type	Summer Fair	L5 RAIN	L50 RAIN
1	AC	*****	-93.78	*****
2	AC	*****	-96.77	*****
3	AC	*****	-93.89	*****
4	AC	*****	*****	*****
5	AC	*****	*****	*****
6	AC	*****	*****	*****
7	Ground Wire	*****	*****	*****

 *
 * AUDIBLE NOISE *
 *
 * Microphone is 5.00 feet above ground *
 * Altitude 0. ft *
 *

<----- HVTRC CALCULATION METHOD ----->

LATERAL DISTANCE (feet) (meters)	L50 FAIR (dB(A))	L5 RAIN (dB(A))	L50 RAIN (dB(A))	Leq(24) (dB(A))	Ldn (dB(A))
-------------------------------------	---------------------	--------------------	---------------------	--------------------	----------------

2020DNML.O01

-300.0	-91.44	.0	3.0	.0	.0	.0
-275.0	-83.82	.0	3.5	.0	.0	.0
-250.0	-76.20	.0	4.0	.0	.0	.0
-225.0	-68.58	.0	4.6	.0	.0	.0
-200.0	-60.96	.0	5.3	.0	.0	.0
-175.0	-53.34	.0	6.0	.0	.0	.0
-150.0	-45.72	.0	6.8	.0	.0	.0
-125.0	-38.10	.0	7.6	.0	.0	.0
-100.0	-30.48	.0	8.6	.0	.0	.0
-75.0	-22.86	.0	9.8	.0	.0	.0
-50.0	-15.24	.0	11.2	.0	.0	.0
-25.0	-7.62	.0	12.6	.0	.0	.0
.0	.00	.0	13.4	.0	.0	.0
25.0	7.62	.0	12.7	.0	.0	.0
50.0	15.24	.0	11.2	.0	.0	.0
75.0	22.86	.0	9.9	.0	.0	.0
100.0	30.48	.0	8.7	.0	.0	.0
125.0	38.10	.0	7.7	.0	.0	.0
150.0	45.72	.0	6.8	.0	.0	.0
175.0	53.34	.0	6.0	.0	.0	.0
200.0	60.96	.0	5.3	.0	.0	.0
225.0	68.58	.0	4.7	.0	.0	.0
250.0	76.20	.0	4.1	.0	.0	.0
275.0	83.82	.0	3.5	.0	.0	.0
300.0	91.44	.0	3.0	.0	.0	.0

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: C:\SDRIVE~1\RFBISC~1\EMF\NWECO\2020DPK.I01

DATE: 7/13/2009 TIME: 16: 8

2020- Normal Peak w/distributi

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*****
*                               BUNDLE INFORMATION                               *
*****
```

BNDL #	CIRC #	VOLTAGE (kv)	VOLTAGE ANGLE (DEG)	LOAD (AMPS)	CURRENT ANGLE (DEG)	# OF COND	COORDINATES X (FT)	COORDINATES Y (FT)	PHASE
1	1	69.0	.0	45.0	.0	1	-3.0	45.5	A
2	1	69.0	240.0	45.0	240.0	1	3.0	50.5	B
3	1	69.0	120.0	45.0	120.0	1	3.0	40.5	C
4	1	12.0	.0	29.0	.0	1	-3.7	32.5	A
5	1	12.0	240.0	29.0	240.0	1	-1.7	32.5	B
6	1	12.0	120.0	29.0	120.0	1	3.7	32.5	C
7	1	.0	.0	.0	.0	1	-1.0	27.5	GND

```
*****
*                               MINIMUM GROUND CLEARANCE = 27.500 FT.                               *
*****
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```
*****
*                               SUBCONDUCTOR INFORMATION - REGULAR BUNDLES                               *
*****
```

BNDL #	DIAMETER (IN)	SPACING (IN)	DC RESIST. (OHMS/MI)	AC RESIST. (OHMS/MI)	AC REACT. (OHMS/MI)
1	.563	.000	.42840	.43400	.557000
2	.563	.000	.42840	.43400	.557000
3	.563	.000	.42840	.43400	.557000
4	.563	.000	.42840	.43400	.557000
5	.563	.000	.42840	.43400	.557000
6	.563	.000	.42840	.43400	.557000
7	.563	.000	.42840	.43400	.557000

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*****
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```
*****
*                               *
* MAXIMUM SURFACE GRADIENT (kv/cm) *
*                               *
*****
```

BNDL #	Type	ACrms	PEAK(+)	PEAK(-)
1	AC	9.64	13.63	-13.63
2	AC	9.24	13.06	-13.06
3	AC	9.62	13.61	-13.61
4	AC	1.83	2.59	-2.59
5	AC	2.39	3.38	-3.38
6	AC	.99	1.40	-1.40
7	Ground Wire	.16	.22	-.22

```
*****
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2020DPK.001

*
 * AC ELECTRIC FIELD PROFILE *
 * at 3.28 feet above ground *
 *

LATERAL DISTANCE (feet) (meters)	MAXIMUM FIELD (kv/m)	MINOR/MAJOR ELLIPSE AXES (ratio)	VERTICAL (kv/m)	HORIZONTAL (kv/m)	SPACE POTENTIAL (kv)	
-300.0	-91.44	.004	.002	.004	.000	.004
-275.0	-83.82	.005	.003	.005	.000	.005
-250.0	-76.20	.006	.004	.006	.000	.006
-225.0	-68.58	.008	.004	.008	.000	.008
-200.0	-60.96	.010	.005	.010	.000	.010
-175.0	-53.34	.012	.007	.012	.000	.012
-150.0	-45.72	.016	.010	.016	.001	.016
-125.0	-38.10	.022	.013	.022	.001	.022
-100.0	-30.48	.032	.019	.032	.002	.032
-75.0	-22.86	.049	.028	.049	.003	.049
-50.0	-15.24	.079	.039	.079	.006	.079
-25.0	-7.62	.104	.064	.104	.007	.103
.0	.00	.072	.309	.070	.028	.069
25.0	7.62	.120	.085	.120	.012	.119
50.0	15.24	.070	.077	.069	.007	.069
75.0	22.86	.045	.040	.045	.003	.045
100.0	30.48	.031	.022	.031	.002	.031
125.0	38.10	.022	.013	.022	.001	.022
150.0	45.72	.016	.009	.016	.001	.016
175.0	53.34	.012	.007	.012	.000	.012
200.0	60.96	.010	.005	.010	.000	.010
225.0	68.58	.008	.004	.008	.000	.008
250.0	76.20	.006	.003	.006	.000	.006
275.0	83.82	.005	.003	.005	.000	.005
300.0	91.44	.005	.002	.005	.000	.005

 AC CURRENTS IN EACH BUNDLE:

BNDL #	----- AC CURRENTS (Amperes) -----			BUNDLE POSITION	
	REAL	IMAGINARY	TOTAL	X-COORD	Y-COORD
1	45.00	.00	45.00	-3.00	45.50
2	-22.50	-38.97	45.00	3.00	50.50
3	-22.50	38.97	45.00	3.00	40.50
4	29.00	.00	29.00	-3.67	32.50
5	-14.50	-25.11	29.00	-1.67	32.50
6	-14.50	25.11	29.00	3.67	32.50
7	.30	-.96	1.00	-1.00	27.50

 *
 * MAGNETIC FIELD PROFILE *
 * at 3.28 feet above ground *
 *

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	MAJOR AXIS (mG)	MINOR/MAJOR (RATIO)	VERTICAL COMP (mG)	HORIZONTAL COMP (mG)	RMS RESULTANT (mG)
-300.0	-91.44	.05	.324	.04	.03	.05
-275.0	-83.82	.06	.345	.05	.04	.06
-250.0	-76.20	.07	.368	.05	.05	.07
-225.0	-68.58	.08	.391	.06	.06	.08
-200.0	-60.96	.10	.414	.08	.07	.10
-175.0	-53.34	.12	.438	.09	.09	.13
-150.0	-45.72	.15	.461	.11	.12	.17
-125.0	-38.10	.21	.481	.15	.17	.23
-100.0	-30.48	.29	.497	.20	.26	.33
-75.0	-22.86	.46	.500	.27	.43	.51
-50.0	-15.24	.79	.477	.38	.79	.88
-25.0	-7.62	1.54	.407	.99	1.34	1.67
.0	.00	2.47	.357	2.38	1.11	2.63
25.0	7.62	1.65	.469	.80	1.64	1.82
50.0	15.24	.78	.605	.69	.60	.92
75.0	22.86	.40	.710	.40	.29	.50
100.0	30.48	.23	.796	.23	.19	.30
125.0	38.10	.15	.871	.15	.13	.20
150.0	45.72	.10	.935	.10	.10	.14
175.0	53.34	.07	.941	.07	.07	.10
200.0	60.96	.06	.888	.05	.06	.08
225.0	68.58	.05	.830	.04	.05	.06
250.0	76.20	.04	.776	.03	.04	.05
275.0	83.82	.03	.726	.03	.03	.04
300.0	91.44	.03	.680	.02	.03	.04

 *
 * AUDIBLE NOISE *
 * GENERATED ACOUSTIC POWER *
 * (dB above 1uw/m) *
 *

BNDL #	Type	Summer Fair	L5 RAIN	L50 RAIN
1	AC	*****	-93.78	*****
2	AC	*****	-96.77	*****
3	AC	*****	-93.89	*****
4	AC	*****	*****	*****
5	AC	*****	*****	*****
6	AC	*****	*****	*****
7	Ground Wire	*****	*****	*****

□

 *
 * AUDIBLE NOISE *
 *
 * Microphone is 5.00 feet above ground *
 * Altitude 0. ft *
 *

<----- HVTRC CALCULATION METHOD ----->

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	L50 FAIR (dB(A))	L5 RAIN (dB(A))	L50 RAIN (dB(A))	Leq(24) (dB(A))	Ldn (dB(A))
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2020DPK.o01

-300.0	-91.44	.0	3.0	.0	.0	.0
-275.0	-83.82	.0	3.5	.0	.0	.0
-250.0	-76.20	.0	4.0	.0	.0	.0
-225.0	-68.58	.0	4.6	.0	.0	.0
-200.0	-60.96	.0	5.3	.0	.0	.0
-175.0	-53.34	.0	6.0	.0	.0	.0
-150.0	-45.72	.0	6.8	.0	.0	.0
-125.0	-38.10	.0	7.6	.0	.0	.0
-100.0	-30.48	.0	8.6	.0	.0	.0
-75.0	-22.86	.0	9.8	.0	.0	.0
-50.0	-15.24	.0	11.2	.0	.0	.0
-25.0	-7.62	.0	12.6	.0	.0	.0
.0	.00	.0	13.4	.0	.0	.0
25.0	7.62	.0	12.7	.0	.0	.0
50.0	15.24	.0	11.2	.0	.0	.0
75.0	22.86	.0	9.9	.0	.0	.0
100.0	30.48	.0	8.7	.0	.0	.0
125.0	38.10	.0	7.7	.0	.0	.0
150.0	45.72	.0	6.8	.0	.0	.0
175.0	53.34	.0	6.0	.0	.0	.0
200.0	60.96	.0	5.3	.0	.0	.0
225.0	68.58	.0	4.7	.0	.0	.0
250.0	76.20	.0	4.1	.0	.0	.0
275.0	83.82	.0	3.5	.0	.0	.0
300.0	91.44	.0	3.0	.0	.0	.0