

# EXHIBIT "E"

## TE011048015

BLASTING FOR ROCK EXCAVATION  
ON DOMINION VIRGINIA POWER'S/  
DOMINION NORTH CAROLINA POWER'S  
OVERHEAD TRANSMISSION LINE  
RIGHTS-OF-WAY

CONDITIONS:

- 1.) NO BLASTING SHALL BE PERMITTED ON DOMINION VIRGINIA POWER'S/DOMINION NORTH CAROLINA'S OVERHEAD TRANSMISSION LINE RIGHT-OF-WAY AND WITHIN 100 FEET OF ANY TRANSMISSION LINE STRUCTURE, FOUNDATION, GUY, ANCHORS, OR ANY DOMINION FACILITY WITHOUT THE WRITTEN PERMISSION OF DOMINION VIRGINIA POWER'S STRUCTURAL ENGINEER.
- 2.) A BLASTING PLAN MUST BE SUBMITTED AND APPROVED PRIOR TO ANY BLASTING ACTIVITIES.
- 3.) BLASTING MATS SHALL BE USED ON ALL BLASTING. NO SOIL, ROCK, DEBRIS OR MATERIALS SHALL BE PROPELLED ABOVE THE GROUND AS A RESULT OF BLASTING.
- 4.) THE CALCULATED SCALED BLASTING DISTANCE SHALL NOT BE LESS THAN EIGHT (8). SCALED DISTANCE IS DEFINED AS THE DISTANCE TO THE EXPOSURE IN FEET DIVIDED BY THE SQUARE ROOT OF THE MAXIMUM POUNDS PER DELAY.
- 5.) THE MAXIMUM PARTICLE VELOCITY SHALL NOT EXCEED 2.0 IN/SEC. WITHOUT WRITTEN PERMISSION.
- 6.) ANY BLASTING WITHIN 100 FEET OF ANY TRANSMISSION LINE FACILITIES AS OUTLINED ABOVE SHALL BE MONITORED WITH A SEISMOGRAPH TO INSURE COMPLIANCE WITH THE STATED CONDITIONS OR AS DIRCTED BY THE STRUCTURAL ENGINEER. RESULTS FROM THE RECORDED READINGS WILL DETERMINE WHETHER THE BLASTING PLAN SHALL BE REVISED.
- 7.) ALL EXPLOSIVES AND/OR DETONATION DEVICES SHALL NOT BE ALLOWED ON DOMINION VIRGINIA POWER'S TRANSMISSION LINE RIGHT-OF-WAY UNTIL THE HOLES ARE READY TO CHARGE.



## BLASTING PLAN (example)

### Blasting Proposal & Scaled Distance Calculations, Per Dominion Virginia Power Specifications

Type of Explosive: Austin 60% Gel    Stick Size: 2" x 16"    Weight per Stick: 2.6 lbs.  
Energy Value (cal/gm): 974 cal/gm    Delay time: 25 ms    lbs. Per Explosive Delay: 1.5 to 3  
Number of Holes: 30 to 50    Depth of Holes: 5' to 10'  
Pattern: Straight (at 2.5' spacing across ditch)    Predominant Soil: Clay  
Blasting Company:    Phone:  
Contact Person:    Contact Phone:

#### Proposed Blasting: 1.5 lbs. Per Delay @ a Distance of 12'-15' from Structure\*

Size of Charge:	1.5	Size of Charge:	1.5
Square Root of Charge:	1.22474	Square Root of Charge:	1.214745
Distance to Structure:	12	Distance of Structure:	15
Scaled Distance:	9.79796	Scaled Distance:	12.24745

#### Proposed Blasting: 2 lbs. Per Delay @ a Distance of 16'-20' from Structure\*

Size of Charge:	2	Size of Charge:	2
Square Root of Charge:	1.41421	Square Root of Charge:	1.414214
Distance to Structure:	16	Distance to Structure:	20
Scaled Distance:	11.3137	Scaled Distance:	14.14214

#### Proposed Blasting: 2.5 lbs. Per Delay @ a Distance of 21'-25' from Structure\*

Size of Charge:	2.5	Size of Charge:	2.5
Square Root of Charge:	1.58114	Square Root of Charge:	1.581139
Distance to Structure:	21	Distance to Structure:	25
Scaled Distance:	13.2816	Scaled Distance:	15.81139

#### Proposed Blasting: 3 lbs. Per Delay @ a Distance of 26'-50' from Structure\*

Size of Charge:	3	Size of Charge:	3
Square Root of Charge:	1.73205	Square Root of Charge:	1.732051
Distance to Structure:	26	Distance of Structure:	50
Scaled Distance:	15.0111	Scaled Distance:	28.86751

\*Structure is defined as any Transmission line Structure, foundation, guy or anchors.

Blasting mats shall be used at all times. No debris or material shall be propelled above the ground.

The maximum Peak Particle Velocity shall be limited to 2.0 inches/second. All blasting will be monitored by seismograph. Seismograph readings will be recorded for all blasting within 50 feet of a Dominion Virginia Power structure.

No explosives and or detonation devices shall be placed on Dominion Virginia Power's right of way until the blast holes are ready to charge.

Dominion Virginia Power, Transmission Line Department, shall be notified 48 hours prior to any authorized blasting on the transmission right of way by calling Dennis Clarke 804-819-2374, pgr 1-800-272-5543 8547 or Wade Bunn 757-928-2042, pgr 1-800-272-5543-1527.

A Dominion Virginia Power inspector shall be on site prior to the initial blasting. Please contact Dominion Virginia Power's representative to arrange for an inspector.

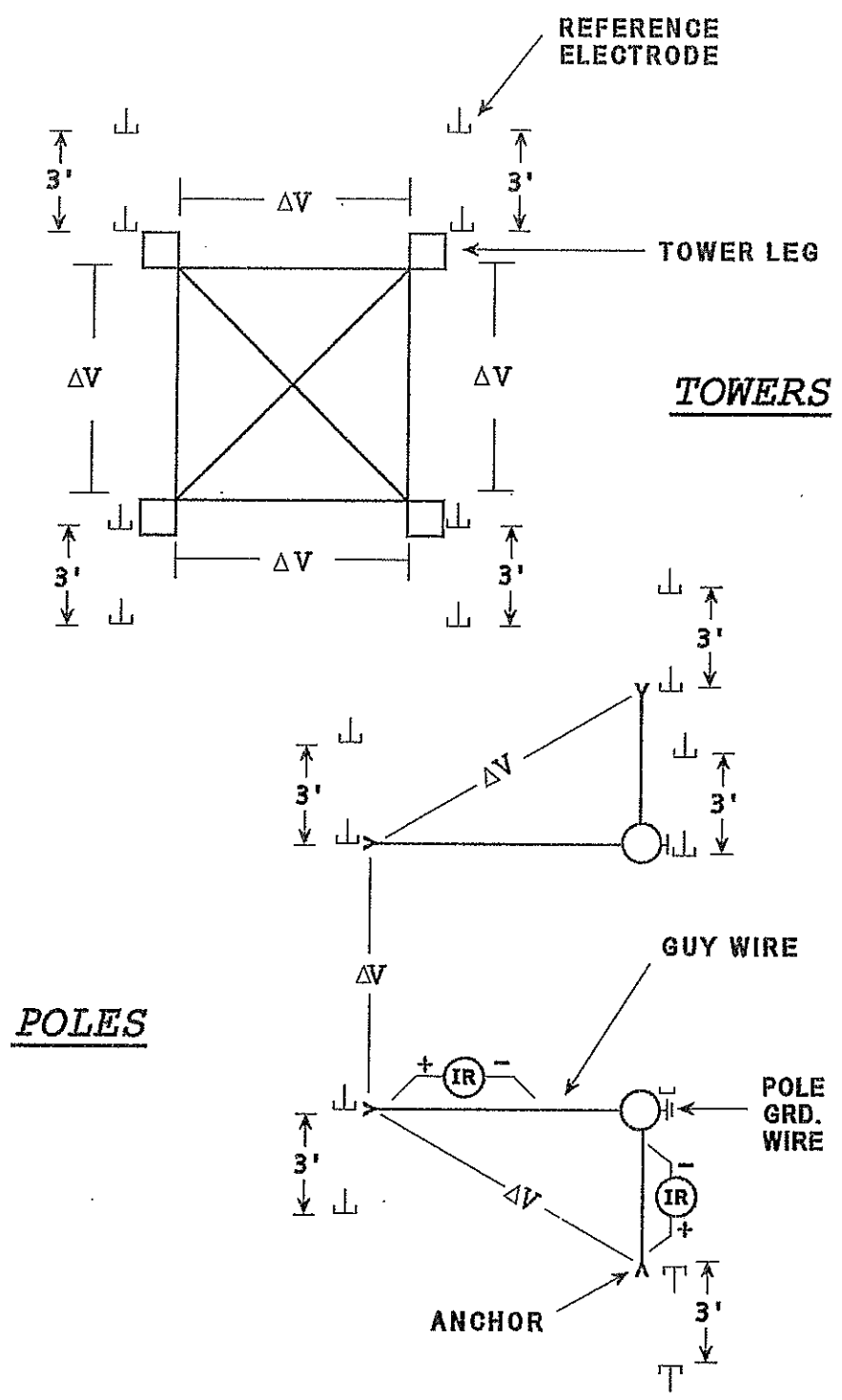


FIG. 1

IN AN EMERGENCY CALL ( ) \_\_\_\_\_  
Or \_\_\_\_\_

D.T. # \_\_\_\_\_

# BLASTING REPORT (example)

(SHOT DIAGRAM ON REVERSE SIDE)

Permit \_\_\_\_\_

COMPANY \_\_\_\_\_

DATE \_\_\_\_\_

SHOT NO. \_\_\_\_\_

LOCATION \_\_\_\_\_

OPERATION \_\_\_\_\_

TIME OF BLAST \_\_\_\_\_

A.M.  
P.M.

TYPE SHOT \_\_\_\_\_

MATERIAL BLASTED \_\_\_\_\_

<p><b>DRILLING PATTERN DATA</b></p> <p>NO. OF HOLES _____</p> <p>HOLE DIAM. _____</p> <p>HOLE DEPTH _____</p> <p>SPACING _____</p> <p>BURDEN _____</p> <p>STEMMING DEPTH _____ DECK LENGTH _____</p> <p>BACK FILL DEPTH _____</p> <p>WATER _____</p> <p>DRILL FOOTAGE _____</p> <p>TOTAL CU. YD. OF ROCK _____</p>	<p><b>EXPLOSIVES</b></p> <table border="1"> <thead> <tr> <th>Type (Grade)</th> <th>Size</th> <th>Pounds</th> </tr> </thead> <tbody> <tr> <td>ANFO</td> <td>Bulk/Bags</td> <td>_____</td> </tr> <tr> <td>WET-HOLE</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>WET-HOLE</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>CAST BOOSTER</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>CAST BOOSTER</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>PRIMER</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td colspan="2">TOTAL EXPLOSIVE</td> <td>_____</td> </tr> <tr> <td colspan="2">POUNDS PER YARD</td> <td>_____</td> </tr> </tbody> </table>	Type (Grade)	Size	Pounds	ANFO	Bulk/Bags	_____	WET-HOLE	_____	_____	WET-HOLE	_____	_____	CAST BOOSTER	_____	_____	CAST BOOSTER	_____	_____	PRIMER	_____	_____	_____	_____	_____	_____	_____	_____	TOTAL EXPLOSIVE		_____	POUNDS PER YARD		_____
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<p><b>BLASTING CIRCUIT DATA</b></p> <p>TYPE DELAYS _____</p> <p>NO. OF DELAYS _____</p> <p>DELAYS USED _____</p> <p>TYPE CIRCUIT _____</p> <p>NO. OF SERIES/TIMER CIRCUITS _____</p> <p>TYPE BLASTING MACHINE _____</p>	<p><b>SCALED DISTANCE DATA</b></p> <p>LBS. EXPLOSIVES PER HOLE _____</p> <p>LBS. EXPLOSIVES PER DECK _____</p> <p>MAX HOLES PER DELAY _____</p> <p>MAX POUNDS PER DELAY _____</p> <p>DISTANCE TO NEAREST BLDG. _____</p> <p>DIRECTION _____</p> <p>SCALED DISTANCE _____</p>																																	
<p><b>MISCELLANEOUS DATA</b></p> <p>WEATHER: <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy <input type="checkbox"/> Rain</p> <p>(Check two) <input type="checkbox"/> Hot <input type="checkbox"/> Warm <input type="checkbox"/> Cold</p> <p>WIND FROM _____ VELOCITY _____</p> <p>WERE MATS USED? _____</p>	<p><b>SEISMOGRAPH DATA</b></p> <p>SEISMOGRAPH LOCATION _____</p> <p>DISTANCE FROM BLAST _____</p> <p>ANALYSIS BY _____</p> <p>OPERATOR'S NAME _____</p> <p>SEISMOGRAPH SERIAL NUMBER _____</p>																																	

RESULTS - \_\_\_\_\_

NUMBER IN CREW: \_\_\_\_\_ SHOT DIAGRAM ON BACK

_____ HOLES WERE BACKFILLED	BLASTER'S LICENSE NO. _____
_____ PERFORMED BACKFILL	BLASTER'S NAME _____
_____ NUMBER OF SHOVELS	BLASTER'S SIGNATURE _____

