

Appendix A: Chicago Region Circuit Z1408

Chicago Region Circuit Z1408 (Page J-12 of ComEd's 2002 Reliability Report):

This circuit, also known as Z1408, is located in Chicago. The date of the last ComEd circuit inspection was January 24, 2003. Z1408 is a new circuit for which ComEd had not yet performed tree trimming. Staff inspected this circuit on June 18, 2003, less than five months after ComEd's last circuit inspection. The reliability statistics for the past three years are as follows (see Table 10 of the Commission Assessment for a definition of each statistic):

Chicago Z1408

Year	SAIFI	CAIFI	CAIDI (minutes)
2002	4.95	4.95	164
2001	1.83	1.83	145
2000	0	0	0

Of the eight interruptions recorded for circuit Z1408, three were lightning related, three were wind related, one was tree related, and one was the result of equipment malfunction. ComEd indicates that a fault indicator was installed. Additional work description included twelve poles to be replaced and tree trimming to be completed by year-end 2003. The ComEd estimated 2003 cost of work was \$78,307. Staff was surprised that after the number of lightning related outages that additional lightning arrestors were not indicated in ComEd's work description.

During its field review, Staff found various places where animal guards were detached and ineffective as well as numerous places where no animal guards at all were observed. Additional items that Staff found during its field review included shell rotted poles, ragged or bad pole tops, deteriorated cross arms, trees in close proximity or possible contact with the primary, lose pole top pins or nuts, and badly leaning poles & alley arm & pole top extension hardware. The pole maps and circuit location maps provided by ComEd were useful and readable. A copy of Staff field notes and pictures for this circuit follows.

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Field Notes and Pictures

Utility: ComEd Investigators: J. Stutsman & J. Spencer

Feeder Ckt/Sub: Z1408/TDC814 (Dundee) City: Chicago Voltage: 12kV Date: Wednesday, June 18, 2003

Photo ID	Drawing No.	Location Description	Observations at this Location
A1	Z1408-2	Transformer 7532041 (Open Delta)	Animal Guards detached and ineffective on 2 transformer in a row (2 open delta transformers that were mounted on separate poles next to each other)
A2	Z1408-2	Transformer 7531641	Pole supporting transformer has cross-arms bolted to base
A3	Z1408-3	2nd pole South of Transformer 7271801 [behind houses (on west side of alley) between house number 6923 and 6949]	Split pole top
A4	Z1408-3	1 pole west from 5 Bell	Badly shell rotted pole
A5	Z1408-3	Same as A5	Cross-arm driven in ground at base of pole and broken off
	Z1408-1	Various Location	Noted animal guards on many transformers such as transformers 7802443 and 7802441 but no animal guard on transformer 7802202
	"	Primary just south of transformer 7802441	Trees were close to primary
	Z1408-2	Transformer 7530141	Animal Guard is hanging off of transformer
	"	1 pole south of transformer 7531641	Pole looks shell rotted -- has Osrose 2002 tag
	Z1408-3	Transformer's 7262041, 7271702, 7271801	No animal guards observed
	"	Transformer 7271741	Animal guard barely hanging on south transformer with no guard on north transformer of open delta bank
	"	Transformer 7272601	No guy wire observed off of final pole at end of circuit in that right of way
	"	Transformer 7272001	No transformer was observed at location shown for transformer
	Z1408-4	Transformer 7031742	Alley arm partly split where it attaches to Pole

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	"	2nd pole north of transformer 7022201	Split pole top
	"	Transformer 7021401	Ragged pole top
	"	Transformer 7022902	Bottom bolt holding pole top pin is lose
	"	Pole at end of circuit between S. Talman Av. And S Rockwell St. and just north of W. Marquette Rd.	No guy wire
	"	2nd pole south of W. 6th St. between S. Talman Av. And S. Rockwell St	Lose bottom bold holding pole top pin
	"	West of Transformer 7020201	Badly leaning pole and alley arm
	"	2 poles north of W 64th St and between S Fairfield Av and S Washington Av	Pole top extension hardware is badly leaning
	"	1st pole south of W 65th St and between S Fairfield Av and S Washington Av	Both bolts [top and bottom] attaching pole top pin are lose
	"	1st pole north of W 66th St and between S Fairfield Av and S Washington Av	Nut on top bolt attaching pole top pin is lose

Notes: This summary for the circuit inspected represents typical observations noted by Staff engineers during the field inspection and DOES NOT represent all of the problems or potential problems that may exist on the circuit. In many cases, there were portions of the circuit that were not inspected at all. No effort was made to perform a thorough, detailed inspection as may need to be done by the utility.

Appendix A: Chicago Region Circuit Z1408

Picture A-1



Picture A-2



Appendix A: Chicago Region Circuit Z1408

Picture A-3



Picture A-4



Appendix A: Chicago Region Circuit Z1408

Picture A-5

