



Control Number: 29165



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PUBLIC UTILITY COMMISSION
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Supplemental Data to Service Quality Report

Public Utility Commission of Texas

In Accordance With

P.U.C. Subst. R. §25.52 and §25.81

2003 Reporting Year

Texas-New Mexico Power Company

Project 29165

June 4, 2004

1. Provide complete records of all sustained interruptions, by interruption class, for the months of April and October, 2003. [Subst. R. 25.52(d)]

April 2003

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	ALVIN SUB	1232	1-Apr-03	1-Apr-03	10:46:00	11:00:00	14	4	SQUIRREL
FORCED	ANGLETON SUBSTATION	1240	1-Apr-03	1-Apr-03	15:05:00	15:50:00	45	500	CROSS ARM BROKEN OR BURNED
FORCED	ANGLETON SUBSTATION	1240	1-Apr-03	1-Apr-03	17:00:00	17:25:00	25	1	SURGE WHEN PICKING UP COLD LOAD
FORCED	FREEWAY PARK SUBSTATION	1298	1-Apr-03	1-Apr-03	12:44:00	13:14:00	30	4	TREES
FORCED	HEIGHTS SUBSTATION	1224	1-Apr-03	1-Apr-03	5:30:00	7:20:00	110	1	RODENT
FORCED	JONES STREET SUB	1431	1-Apr-03	1-Apr-03	13:18:00	13:37:00	19	12	HIGH WIND
FORCED	JONES STREET SUB	1431	1-Apr-03	1-Apr-03	16:25:00	16:52:00	27	65	HIGH WIND
FORCED	JONES STREET SUB	1411	1-Apr-03	1-Apr-03	16:52:00	18:30:00	98	20	HIGH WIND
FORCED	JONES STREET SUB	1411	1-Apr-03	1-Apr-03	14:23:00	15:30:00	67	3	HIGH WIND
FORCED	LAMARQUE SUBSTATION	1204	1-Apr-03	1-Apr-03	15:30:00	16:10:00	40	4	TREES
FORCED	MAGNOLIA SUBSTATION	1145	1-Apr-03	1-Apr-03	10:00:00	10:15:00	15	4	SQUIRREL
FORCED	PETROLIA SUB	12260	1-Apr-03	1-Apr-03	19:25:00	20:05:00	40	34	SQUIRREL
FORCED	KERMIT NO. 2 SUB	12K98	2-Apr-03	2-Apr-03	16:25:00	16:38:00	13	1	JUMPER BROKEN OR BURNED
FORCED	LAMARQUE SUBSTATION	1202	2-Apr-03	2-Apr-03	14:48:00	15:35:00	47	5	TREES
FORCED	LAMARQUE SUBSTATION	1202	2-Apr-03	2-Apr-03	14:55:00	15:30:00	35	2	OTHER
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1234	2-Apr-03	2-Apr-03	12:20:00	13:05:00	45	15	SQUIRREL
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1233	2-Apr-03	2-Apr-03	10:11:00	10:30:00	19	3	HIGH WIND
FORCED	DOWNTOWN 12.5 SUB	12F130	3-Apr-03	3-Apr-03	11:47:00	12:30:00	43	3	CONNECTOR LOOSE
FORCED	LAKE WHITNEY SUB	12355	3-Apr-03	3-Apr-03	8:25:00	8:52:00	27	1	MOTOR STARTING SURGE
FORCED	NORTHSIDE SUBSTATION	1295	3-Apr-03	3-Apr-03	8:03:00	8:34:00	31	3	SQUIRREL
FORCED	NORTHSIDE SUBSTATION	1293	3-Apr-03	3-Apr-03	4:00:00	4:25:00	25	914	VEHICLE HIT CONDUCTOR
FORCED	SWEENEY SUBSTATION	1128	3-Apr-03	3-Apr-03	14:10:00	15:15:00	65	1	CUSTOMER CAUSED
FORCED	TEJAS SUBSTATION	1212	3-Apr-03	3-Apr-03	16:00:00	16:30:00	30	1	UNKNOWN
FORCED	WALNUT SPRINGS SUB	2215	3-Apr-03	3-Apr-03	22:30:00	23:00:00	30	15	JUMPER BROKEN OR BURNED
FORCED	BRAZORIA SUBSTATION	1291	4-Apr-03	4-Apr-03	6:45:00	7:45:00	60	25	OVERLOAD
FORCED	DICKINSON SUBSTATION	1277	4-Apr-03	4-Apr-03	20:00:00	21:10:00	70	1	BAD CONNECTION
FORCED	DICKINSON SUBSTATION	1277	4-Apr-03	4-Apr-03	14:30:00	14:45:00	15	25	SQUIRREL
FORCED	FRIENDSWOOD SUBSTATION	1108	4-Apr-03	4-Apr-03	9:30:00	10:00:00	30	9	LIGHTNING
FORCED	FRONTIER SUB	4236	4-Apr-03	4-Apr-03	8:00:00	8:30:00	30	50	LIGHTNING
FORCED	GLEN ROSE SUB	22295	4-Apr-03	4-Apr-03	8:00:00	8:50:00	50	10	LIGHTNING
FORCED	GLEN ROSE SUB	22295	4-Apr-03	4-Apr-03	8:15:00	8:40:00	25	8	LIGHTNING
FORCED	GLEN ROSE SUB	23875	4-Apr-03	4-Apr-03	8:15:00	8:40:00	25	8	LIGHTNING

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	MERIDIAN SUB	23210	4-Apr-03	4-Apr-03	8:30:00	10:00:00	90	12	LIGHTNING
FORCED	MERIDIAN SUB	23210	4-Apr-03	4-Apr-03	8:30:00	10:00:00	90	2	LIGHTNING
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1233	4-Apr-03	4-Apr-03	12:45:00	13:20:00	35	1	CUSTOMER CAUSED
FORCED	WHITNEY SUB	22450	4-Apr-03	4-Apr-03	9:18:00	9:37:00	19	9	LIGHTNING
FORCED	WHITNEY SUB	22450	4-Apr-03	4-Apr-03	9:18:00	9:37:00	19	9	LIGHTNING
FORCED	WHITNEY SUB	22455	4-Apr-03	4-Apr-03	8:42:00	9:30:00	48	6	LIGHTNING
FORCED	WHITNEY SUB	22450	4-Apr-03	4-Apr-03	6:30:00	7:30:00	60	1	CONNECTOR LOOSE
FORCED	DICKINSON SUBSTATION	1279	5-Apr-03	5-Apr-03	10:20:00	12:30:00	130	2	TRANSFORMER FAILURE
FORCED	FRIENDSWOOD SUBSTATION	1251	5-Apr-03	5-Apr-03	7:15:00	9:00:00	105	80	UNKNOWN
FORCED	GLEN ROSE SUB	23875	5-Apr-03	5-Apr-03	18:00:00	19:00:00	60	2	LIGHTNING
FORCED	LEAGUE CITY MAIN SUBSTATION	1283	5-Apr-03	5-Apr-03	13:50:00	15:13:00	83	4	ARRESTER FAILURE
FORCED	MAGNOLIA SUBSTATION	1144	5-Apr-03	5-Apr-03	15:15:00	17:00:00	105	20	URD CABLE FAILURE
FORCED	NORTHSIDE SUBSTATION	1228	5-Apr-03	5-Apr-03	20:00:00	20:30:00	30	85	CUTOUT DOOR BURNED UP
FORCED	SOUTH SUB	1107	5-Apr-03	5-Apr-03	21:56:00	23:20:00	84	1362	POLE ROTTEN OR BROKEN
FORCED	SOUTH SUB	1107	5-Apr-03	5-Apr-03	23:20:00	2:45:00	205	31	POLE ROTTEN OR BROKEN
FORCED	FRIENDSWOOD SUBSTATION	1107	6-Apr-03	6-Apr-03	7:50:00	10:05:00	135	1	TREES
FORCED	HEIGHTS SUBSTATION	1224	6-Apr-03	6-Apr-03	15:30:00	16:00:00	30	1	TREES
FORCED	HEIGHTS SUBSTATION	1132	6-Apr-03	6-Apr-03	10:00:00	11:30:00	90	2	URD CABLE FAILURE
FORCED	JONES STREET SUB	1431	6-Apr-03	6-Apr-03	12:39:00	12:55:00	16	1	LIGHTNING
FORCED	MAGNOLIA SUBSTATION	1145	6-Apr-03	6-Apr-03	11:40:00	12:36:00	56	4	TREES
FORCED	NOCONA SUB	13374	6-Apr-03	6-Apr-03	10:07:00	10:21:00	14	1	LIGHTNING
FORCED	NORTHSIDE SUBSTATION	1295	6-Apr-03	6-Apr-03	8:00:00	9:00:00	60	2	RODENT
FORCED	SOUTH BEND SUB	1300	6-Apr-03	6-Apr-03	13:00:00	15:00:00	120	1	HAIL STORM
FORCED	SOUTH SUB	1103	6-Apr-03	6-Apr-03	9:30:00	13:10:00	220	2	LIGHTNING
FORCED	SOUTH SUB	1102	6-Apr-03	6-Apr-03	15:00:00	15:19:00	19	1	LIGHTNING
FORCED	SOUTH SUB	1107	6-Apr-03	6-Apr-03	3:55:00	4:20:00	25	4	LIGHTNING
FORCED	SOUTH SUB	1104	6-Apr-03	6-Apr-03	2:00:00	3:50:00	110	1	HIGH WIND
FORCED	TI SUB	1032	6-Apr-03	6-Apr-03	7:00:00	10:31:00	211	17	ANTS
FORCED	WEST SUB	1222	6-Apr-03	6-Apr-03	0:00:00	3:52:00	232	188	HIGH WATER
FORCED	WEST SUB	1222	6-Apr-03	6-Apr-03	3:52:00	5:42:00	110	25	HIGH WATER
FORCED	WEST SUB	1222	6-Apr-03	6-Apr-03	5:42:00	7:32:00	110	9	HIGH WATER
FORCED	ALVIN SUB	1230	7-Apr-03	7-Apr-03	11:00:00	11:45:00	45	25	VEHICLE HIT POLE OR GUY
FORCED	ALVIN SUB	1117	7-Apr-03	7-Apr-03	9:00:00	10:00:00	60	1	TRANSFORMER FAILURE
FORCED	ANGLETON SUBSTATION	1243	7-Apr-03	7-Apr-03	9:54:00	10:22:00	28	42	HIGH WIND
FORCED	BRAZORIA SUBSTATION	1271	7-Apr-03	7-Apr-03	13:50:00	14:30:00	40	1	VINES
FORCED	DICKINSON SUBSTATION	1279	7-Apr-03	7-Apr-03	14:30:00	15:50:00	80	1	TREES
FORCED	DICKINSON SUBSTATION	1277	7-Apr-03	7-Apr-03	9:20:00	9:43:00	23	3	SQUIRREL

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	LAMARQUE SUBSTATION	1203	7-Apr-03	7-Apr-03	9:57:00	10:43:00	46	2	LIGHTNING
FORCED	LAMARQUE SUBSTATION	1203	7-Apr-03	7-Apr-03	12:38:00	13:20:00	42	4	LIGHTNING
FORCED	LAMARQUE SUBSTATION	1203	7-Apr-03	7-Apr-03	11:48:00	12:40:00	52	1	LIGHTNING
FORCED	LAMARQUE SUBSTATION	1205	7-Apr-03	7-Apr-03	14:50:00	15:10:00	20	9	SQUIRREL
FORCED	LEAGUE CITY MAIN SUBSTATION	1283	7-Apr-03	7-Apr-03	11:47:00	12:40:00	53	100	LIGHTNING
FORCED	LEAGUE CITY MAIN SUBSTATION	1283	7-Apr-03	7-Apr-03	12:40:00	13:25:00	45	10	ARRESTER FAILURE
FORCED	NORTHSIDE SUBSTATION	1292	7-Apr-03	7-Apr-03	9:50:00	10:19:00	29	23	LIGHTNING
FORCED	NORTHSIDE SUBSTATION	1228	7-Apr-03	7-Apr-03	7:00:00	8:00:00	60	2	CUTOUT DOOR BURNED UP
FORCED	NORTHSIDE SUBSTATION	1228	7-Apr-03	7-Apr-03	9:00:00	11:00:00	120	2	ARRESTER FAILURE
FORCED	ANGLETON SUBSTATION	1155	8-Apr-03	8-Apr-03	11:10:00	11:42:00	32	3	VEHICLE HIT CONDUCTOR
FORCED	ANGLETON SUBSTATION	1241	8-Apr-03	8-Apr-03	16:07:00	17:20:00	73	4	TREES
FORCED	LEAGUE CITY MAIN SUBSTATION	1283	8-Apr-03	8-Apr-03	10:30:00	11:04:00	34	4	SQUIRREL
FORCED	OLD OCEAN SUBSTATION	1260	8-Apr-03	8-Apr-03	15:00:00	16:00:00	60	1	TREES
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1235	8-Apr-03	8-Apr-03	12:30:00	13:00:00	30	2	CUSTOMER CAUSED
FORCED	ALVIN SUB	1257	9-Apr-03	9-Apr-03	8:00:00	8:30:00	30	1	VINES
FORCED	ALVIN SUB	1116	9-Apr-03	9-Apr-03	6:30:00	7:15:00	45	1	TRANSFORMER FAILURE
FORCED	ALVIN SUB	1259	9-Apr-03	9-Apr-03	10:00:00	10:30:00	30	1	SQUIRREL
FORCED	ALVIN SUB	1231	9-Apr-03	9-Apr-03	11:30:00	12:00:00	30	2	SQUIRREL
FORCED	FREEWAY PARK SUBSTATION	1102	9-Apr-03	9-Apr-03	19:00:00	21:00:00	120	1	UNKNOWN
FORCED	HEIGHTS SUBSTATION	1222	9-Apr-03	9-Apr-03	14:31:00	15:10:00	39	3	SQUIRREL
FORCED	LAMARQUE SUBSTATION	1110	9-Apr-03	9-Apr-03	11:30:00	12:45:00	75	6	SQUIRREL
FORCED	MAGNOLIA SUBSTATION	1145	9-Apr-03	9-Apr-03	16:00:00	16:30:00	30	2	VINES
FORCED	FREEWAY PARK SUBSTATION	1109	10-Apr-03	10-Apr-03	15:25:00	16:30:00	65	4	TREES
FORCED	FRIENDSWOOD SUBSTATION	1109	10-Apr-03	10-Apr-03	22:00:00	23:24:00	84	2	SQUIRREL
FORCED	GOMEZ SUB	25F05	10-Apr-03	10-Apr-03	9:47:00	10:29:00	42	18	IMPROPER COORDINATION
FORCED	GOMEZ SUB	25F61	10-Apr-03	10-Apr-03	9:47:00	10:28:00	41	18	IMPROPER COORDINATION
FORCED	NORTHSIDE SUBSTATION	1295	10-Apr-03	10-Apr-03	8:10:00	9:00:00	50	3	SQUIRREL
FORCED	ALVIN SUB	1116	11-Apr-03	11-Apr-03	12:30:00	13:00:00	30	4	SQUIRREL
FORCED	ANGLETON SUBSTATION	1240	11-Apr-03	11-Apr-03	11:35:00	11:55:00	20	2	BAD CONNECTION
FORCED	DICKINSON SUBSTATION	1274	11-Apr-03	11-Apr-03	0:15:00	3:30:00	195	30	VEHICLE HIT CONDUCTOR
FORCED	DOWNTOWN 12.5 SUB	12F114	11-Apr-03	11-Apr-03	19:03:00	19:48:00	45	11	CUSTOMER CAUSED
FORCED	HEIGHTS SUBSTATION	1132	11-Apr-03	11-Apr-03	20:00:00	23:00:00	180	2	BIRD
FORCED	HEIGHTS SUBSTATION	1132	11-Apr-03	11-Apr-03	20:00:00	23:00:00	180	2	BIRD
FORCED	LEAGUE CITY MAIN SUBSTATION	1281	11-Apr-03	11-Apr-03	9:22:00	10:00:00	38	50	SQUIRREL
FORCED	ALVIN SUB	1115	12-Apr-03	12-Apr-03	19:45:00	0:15:00	270	2	CRANE OR DRAGLINE
FORCED	ALVIN SUB	1115	12-Apr-03	12-Apr-03	8:30:00	9:15:00	45	1	SQUIRREL
FORCED	NORTHSIDE SUBSTATION	1292	12-Apr-03	12-Apr-03	16:33:00	18:40:00	127	4	TRANSFORMER FAILURE

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	SWEENEY SUBSTATION	1128	12-Apr-03	12-Apr-03	13:30:00	14:00:00	30	10	LIGHTNING
FORCED	THURBER SUB	1490	12-Apr-03	12-Apr-03	10:23:00	11:17:00	54	1	UNKNOWN
FORCED	FRIENDSWOOD SUBSTATION	1252	13-Apr-03	13-Apr-03	9:16:00	12:00:00	164	3	SQUIRREL
FORCED	LAMARQUE SUBSTATION	1201	13-Apr-03	13-Apr-03	9:30:00	12:30:00	180	5	TRANSFORMER FAILURE
FORCED	MAGNOLIA SUBSTATION	1149	13-Apr-03	13-Apr-03	10:39:00	12:00:00	81	1	TREES
FORCED	TI SUB	1012	13-Apr-03	13-Apr-03	20:45:00	21:30:00	45	99	FOREIGN OBJECT ON LINE
FORCED	WEST SUB	1235	13-Apr-03	13-Apr-03	19:01:00	20:41:00	100	1298	POLE ROTTEN OR BROKEN
FORCED	WEST SUB	1235	13-Apr-03	13-Apr-03	20:41:00	21:45:00	64	39	POLE ROTTEN OR BROKEN
FORCED	WEST SUB	1235	13-Apr-03	14-Apr-03	21:45:00	6:37:00	532	3	POLE ROTTEN OR BROKEN
FORCED	ANGLETON SUBSTATION	1240	14-Apr-03	14-Apr-03	17:55:00	18:36:00	41	1	SQUIRREL
FORCED	BRYSON SUB	1233	14-Apr-03	14-Apr-03	16:00:00	19:30:00	210	1	LIGHTNING
FORCED	DICKINSON SUBSTATION	1277	14-Apr-03	14-Apr-03	15:25:00	16:00:00	35	2	SQUIRREL
FORCED	FRIENDSWOOD SUBSTATION	1107	14-Apr-03	14-Apr-03	3:40:00	5:00:00	80	20	UNKNOWN
FORCED	SWEENEY SUBSTATION	1128	14-Apr-03	14-Apr-03	9:15:00	9:50:00	35	16	SQUIRREL
FORCED	ANGLETON SUBSTATION	1155	15-Apr-03	15-Apr-03	22:30:00	23:40:00	70	1	HIGH WIND
FORCED	KERMIT NO. 2 SUB	12K98	15-Apr-03	15-Apr-03	19:40:00	20:45:00	65	5	JUMPER BROKEN OR BURNED
FORCED	KEYSTONE SUB	12K434	15-Apr-03	15-Apr-03	8:35:00	9:03:00	28	21	CUTOFF DOOR FELL OPEN
FORCED	GLEN ROSE SUB	23875	16-Apr-03	16-Apr-03	5:30:00	8:15:00	165	2	TRANSFORMER FAILURE
FORCED	JONES STREET SUB	1431	16-Apr-03	16-Apr-03	1:00:00	3:00:00	120	1	JUMPER BROKEN OR BURNED
FORCED	JONES STREET SUB	1412	16-Apr-03	16-Apr-03	8:15:00	9:00:00	45	2	BAD CONNECTION
FORCED	JONES STREET SUB	1431	16-Apr-03	16-Apr-03	21:20:00	23:20:00	120	1	BAD CONNECTION
FORCED	JONES STREET SUB	1431	16-Apr-03	16-Apr-03	19:50:00	21:00:00	70	1	BAD CONNECTION
FORCED	LAMARQUE SUBSTATION	1204	16-Apr-03	16-Apr-03	3:30:00	5:00:00	90	2	VINES
FORCED	LEONARD SUB	14635	16-Apr-03	16-Apr-03	20:37:00	22:00:00	83	2	HIGH WIND
FORCED	SOUTH SUB	1107	16-Apr-03	16-Apr-03	0:35:00	0:55:00	20	6	TREES
FORCED	SOUTH SUB	1103	16-Apr-03	16-Apr-03	14:10:00	14:45:00	35	7	TREES
FORCED	TEJAS SUBSTATION	1217	16-Apr-03	16-Apr-03	3:20:00	4:40:00	80	1	TREES
FORCED	WHITWRIGHT SUB	12698	16-Apr-03	16-Apr-03	2:20:00	3:12:00	52	13	LIGHTNING
FORCED	ANGLETON SUBSTATION	1243	17-Apr-03	17-Apr-03	14:40:00	16:35:00	115	1	BROKEN SERVICE
FORCED	ANGLETON SUBSTATION	1240	17-Apr-03	17-Apr-03	11:25:00	12:05:00	40	30	ARRESTER FAILURE
FORCED	DICKINSON SUBSTATION	1272	17-Apr-03	17-Apr-03	15:00:00	15:45:00	45	3	CROSS ARM BROKEN OR BURNED
FORCED	HANDLEY SUB	22820	17-Apr-03	17-Apr-03	13:45:00	14:15:00	30	2	OTHER
FORCED	LEONARD SUB	14635	17-Apr-03	17-Apr-03	11:03:00	11:18:00	15	2	SQUIRREL
FORCED	NORTHSIDE SUBSTATION	1293	17-Apr-03	17-Apr-03	18:20:00	19:30:00	70	4	FUSE LINK BROKEN
FORCED	OLD OCEAN SUBSTATION	1261	17-Apr-03	17-Apr-03	13:00:00	14:33:00	93	165	FOREIGN OBJECT ON LINE
FORCED	BRAZORIA SUBSTATION	1290	18-Apr-03	18-Apr-03	16:30:00	17:00:00	30	2	SQUIRREL

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	FREEWAY PARK SUBSTATION	1297	18-Apr-03	18-Apr-03	8:40:00	11:30:00	170	27	CABLE TERMINATOR FAILURE
FORCED	JONES STREET SUB	1413	18-Apr-03	18-Apr-03	23:30:00	23:45:00	15	1	URD CABLE FAILURE
FORCED	JONES STREET SUB	1413	18-Apr-03	18-Apr-03	23:45:00	23:59:00	14	5	URD CABLE FAILURE
FORCED	LEAGUE CITY MAIN SUBSTATION	1282	18-Apr-03	18-Apr-03	23:00:00	23:59:00	59	15	HIGH WIND
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1235	18-Apr-03	18-Apr-03	12:00:00	12:30:00	30	1	VINES
FORCED	DICKINSON SUBSTATION	1274	19-Apr-03	19-Apr-03	10:10:00	11:40:00	90	50	TREES
FORCED	HILL COUNTY SUB	22125	19-Apr-03	19-Apr-03	10:00:00	13:00:00	180	391	CROSS ARM BROKEN OR BURNED
FORCED	NORTHSIDE SUBSTATION	1228	19-Apr-03	19-Apr-03	8:30:00	10:20:00	110	4	TREES
FORCED	RED RIVER SUB	2252	19-Apr-03	19-Apr-03	9:50:00	10:20:00	30	9	LIGHTNING
FORCED	RED RIVER SUB	2252	19-Apr-03	19-Apr-03	10:50:00	11:16:00	26	21	LIGHTNING
FORCED	SYCAMORE SUB	24105	19-Apr-03	19-Apr-03	10:43:00	11:15:00	32	1	SQUIRREL
FORCED	ANGLETON SUBSTATION	1242	20-Apr-03	20-Apr-03	16:40:00	19:50:00	190	4	LIGHTNING
FORCED	ANGLETON SUBSTATION	1155	20-Apr-03	20-Apr-03	13:50:00	14:30:00	40	10	LIGHTNING
FORCED	ANGLETON SUBSTATION	1240	20-Apr-03	20-Apr-03	20:15:00	21:00:00	45	1	LIGHTNING
FORCED	ANGLETON SUBSTATION	1240	20-Apr-03	20-Apr-03	14:30:00	15:10:00	40	15	LIGHTNING
FORCED	ANGLETON SUBSTATION	1243	20-Apr-03	20-Apr-03	15:10:00	15:30:00	20	40	LIGHTNING
FORCED	ANGLETON SUBSTATION	1240	20-Apr-03	20-Apr-03	17:30:00	18:05:00	35	2	LIGHTNING
FORCED	ANGLETON SUBSTATION	1241	20-Apr-03	20-Apr-03	18:30:00	18:55:00	25	25	LIGHTNING
FORCED	ANGLETON SUBSTATION	1240	20-Apr-03	20-Apr-03	19:50:00	20:15:00	25	4	LIGHTNING
FORCED	ANGLETON SUBSTATION	1155	20-Apr-03	20-Apr-03	21:00:00	21:40:00	40	2	LIGHTNING
FORCED	BRAZORIA SUBSTATION	1271	20-Apr-03	20-Apr-03	17:00:00	18:00:00	60	10	LIGHTNING
FORCED	BRAZORIA SUBSTATION	1271	20-Apr-03	20-Apr-03	22:00:00	22:30:00	30	1	LIGHTNING
FORCED	BRAZORIA SUBSTATION	1291	20-Apr-03	20-Apr-03	14:15:00	15:00:00	45	15	LIGHTNING
FORCED	BRAZORIA SUBSTATION	1270	20-Apr-03	20-Apr-03	15:30:00	16:20:00	50	50	LIGHTNING
FORCED	BRAZORIA SUBSTATION	1291	20-Apr-03	20-Apr-03	15:30:00	16:21:00	51	15	ARRESTER FAILURE
FORCED	EMORY SUB (ONCOR)	1201	20-Apr-03	20-Apr-03	21:00:00	22:00:00	60	1	TREES
FORCED	FRIENDSWOOD SUBSTATION	1253	20-Apr-03	20-Apr-03	19:20:00	20:00:00	40	1	LIGHTNING
FORCED	FRIENDSWOOD SUBSTATION	1253	20-Apr-03	20-Apr-03	16:00:00	16:50:00	50	1	LIGHTNING
FORCED	LAMARQUE SUBSTATION	1204	20-Apr-03	20-Apr-03	17:15:00	19:10:00	115	3	TREES
FORCED	MAGNOLIA SUBSTATION	1145	20-Apr-03	20-Apr-03	18:00:00	18:50:00	50	2	LIGHTNING
FORCED	OLD OCEAN SUBSTATION	1260	20-Apr-03	20-Apr-03	22:30:00	23:15:00	45	1	LIGHTNING
FORCED	OLD OCEAN SUBSTATION	1260	20-Apr-03	20-Apr-03	12:00:00	13:00:00	60	50	LIGHTNING
FORCED	SWEENEY SUBSTATION	1129	20-Apr-03	20-Apr-03	15:45:00	16:10:00	25	8	LIGHTNING
FORCED	SWEENEY SUBSTATION	1129	20-Apr-03	20-Apr-03	16:30:00	16:45:00	15	2	LIGHTNING
FORCED	SWEENEY SUBSTATION	1128	20-Apr-03	20-Apr-03	15:00:00	15:15:00	15	25	LIGHTNING
FORCED	SWEENEY SUBSTATION	1129	20-Apr-03	20-Apr-03	20:30:00	22:30:00	120	4	LIGHTNING
FORCED	WALNUT SPRINGS SUB	2210	20-Apr-03	20-Apr-03	13:45:00	15:15:00	90	1	LIGHTNING
FORCED	WALNUT SPRINGS SUB	2210	20-Apr-03	20-Apr-03	13:00:00	13:54:00	54	12	LIGHTNING

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TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1237	20-Apr-03	20-Apr-03	14:30:00	15:00:00	30	3	CROSS ARM BROKEN OR BURNED
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1233	20-Apr-03	20-Apr-03	18:30:00	19:00:00	30	1	LIGHTNING
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1233	20-Apr-03	20-Apr-03	19:30:00	21:32:00	122	3	LIGHTNING
FORCED	ANGLETON SUBSTATION	1243	21-Apr-03	21-Apr-03	10:54:00	16:00:00	306	1	LIGHTNING
FORCED	ANGLETON SUBSTATION	1153	21-Apr-03	21-Apr-03	7:56:00	9:35:00	99	14	JUMPER BROKEN OR BURNED
FORCED	ANGLETON SUBSTATION	1155	21-Apr-03	21-Apr-03	12:49:00	13:48:00	59	2	SQUIRREL
FORCED	BRAZORIA SUBSTATION	1271	21-Apr-03	21-Apr-03	12:00:00	12:50:00	50	1	FUSE LINK BROKEN
FORCED	BRAZORIA SUBSTATION	1270	21-Apr-03	21-Apr-03	15:00:00	15:30:00	30	1	CUTOUT DOOR BURNED UP
FORCED	DICKINSON SUBSTATION	1274	21-Apr-03	21-Apr-03	7:15:00	8:00:00	45	1	VINES
FORCED	EMORY SUB (ONCOR)	1201	21-Apr-03	21-Apr-03	17:40:00	19:00:00	80	1	SQUIRREL
FORCED	JONES STREET SUB	1413	21-Apr-03	21-Apr-03	16:40:00	17:00:00	20	5	SQUIRREL
FORCED	OLD OCEAN SUBSTATION	1260	21-Apr-03	21-Apr-03	16:15:00	17:00:00	45	2	LIGHTNING
FORCED	SAINT JO SUB	408	21-Apr-03	21-Apr-03	14:07:00	16:15:00	128	3	TRANSFORMER FAILURE
FORCED	SOUTH SUB	1107	21-Apr-03	21-Apr-03	9:12:00	10:03:00	51	3	SQUIRREL
FORCED	WALNUT SPRINGS SUB	2210	21-Apr-03	21-Apr-03	7:50:00	8:45:00	55	1	LIGHTNING
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1233	21-Apr-03	21-Apr-03	2:30:00	6:00:00	210	1	LIGHTNING
FORCED	ALVIN SUB	1231	22-Apr-03	22-Apr-03	15:30:00	16:00:00	30	1	LIGHTNING
FORCED	ANGLETON SUBSTATION	1153	22-Apr-03	22-Apr-03	11:41:00	12:20:00	39	2	CUTOUT DOOR BURNED UP
FORCED	DICKINSON SUBSTATION	1277	22-Apr-03	22-Apr-03	15:00:00	15:30:00	30	2	SQUIRREL
FORCED	FRIENDSWOOD SUBSTATION	1253	22-Apr-03	22-Apr-03	20:00:00	20:50:00	50	1	SQUIRREL
FORCED	GLEN ROSE SUB	23875	22-Apr-03	22-Apr-03	3:47:00	4:10:00	23	1	SQUIRREL
FORCED	HILL COUNTY SUB	23340	22-Apr-03	22-Apr-03	6:30:00	7:15:00	45	2	UNKNOWN
FORCED	JONES STREET SUB	1413	22-Apr-03	22-Apr-03	14:51:00	18:13:00	202	4	SQUIRREL
FORCED	LAMARQUE SUBSTATION	1201	22-Apr-03	22-Apr-03	12:37:00	13:05:00	28	1	ARRESTER FAILURE
FORCED	LEAGUE CITY MAIN SUBSTATION	1281	22-Apr-03	22-Apr-03	18:49:00	19:30:00	41	4	UNKNOWN
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1237	22-Apr-03	22-Apr-03	9:45:00	10:00:00	15	1	VINES
FORCED	WEST SUB	1235	22-Apr-03	22-Apr-03	19:50:00	21:30:00	100	1	TRANSFORMER FAILURE
FORCED	DEPORT SUB (ONCOR)	22164	23-Apr-03	24-Apr-03	23:30:00	0:30:00	60	1	LIGHTNING
FORCED	GLEN ROSE SUB	23875	23-Apr-03	23-Apr-03	22:00:00	22:30:00	30	1	LIGHTNING
FORCED	GLEN ROSE SUB	22300	23-Apr-03	23-Apr-03	21:00:00	22:00:00	60	27	LIGHTNING
FORCED	LEAGUE CITY MAIN SUBSTATION	1282	23-Apr-03	23-Apr-03	19:02:00	20:31:00	89	2	CROSS ARM BROKEN OR BURNED
FORCED	LEAGUE CITY MAIN SUBSTATION	1282	23-Apr-03	23-Apr-03	17:00:00	19:00:00	120	2	BROKEN SERVICE
FORCED	PECOS MAIN SUB	12P02	23-Apr-03	23-Apr-03	6:20:00	7:30:00	70	1	CUSTOMER CAUSED
FORCED	WEST SUB	1223	23-Apr-03	24-Apr-03	21:45:00	2:30:00	285	1	TREES
FORCED	WHITNEY SUB	22450	23-Apr-03	23-Apr-03	6:30:00	7:30:00	60	1	OTHER
FORCED	WHITNEY SUB	22455	23-Apr-03	23-Apr-03	16:40:00	17:30:00	50	1	SQUIRREL
FORCED	DEPORT SUB (ONCOR)	22164	24-Apr-03	24-Apr-03	5:30:00	6:50:00	80	1	LIGHTNING
FORCED	DEPORT SUB (ONCOR)	22164	24-Apr-03	24-Apr-03	1:20:00	1:40:00	20	1	LIGHTNING
FORCED	DEPORT SUB (ONCOR)	22164	24-Apr-03	24-Apr-03	0:30:00	1:15:00	45	1	LIGHTNING

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	DICKINSON SUBSTATION	1279	24-Apr-03	24-Apr-03	10:25:00	10:45:00	20	4	SQUIRREL
FORCED	MAGNOLIA SUBSTATION	1149	24-Apr-03	24-Apr-03	11:50:00	12:30:00	40	20	VINES
FORCED	NOCONA SUB	13374	24-Apr-03	24-Apr-03	17:00:00	17:15:00	15	1	SQUIRREL
FORCED	NORTHSIDE SUBSTATION	1292	24-Apr-03	24-Apr-03	10:44:00	11:27:00	43	7	SQUIRREL
FORCED	RED RIVER SUB	2252	24-Apr-03	24-Apr-03	1:35:00	2:33:00	58	60	HIGH WIND
FORCED	RED RIVER SUB	2229	24-Apr-03	24-Apr-03	11:45:00	12:05:00	20	415	TREES
FORCED	RED RIVER SUB	2252	24-Apr-03	24-Apr-03	3:00:00	3:45:00	45	1	LIGHTNING
FORCED	WORSHAM FIELD SUB	13P98	24-Apr-03	24-Apr-03	11:28:00	12:22:00	54	18	JUMPER BROKEN OR BURNED
FORCED	16TH STREET SUB	12F71	25-Apr-03	25-Apr-03	22:30:00	23:16:00	46	1	OTHER
FORCED	BELDING SUB	12F164	25-Apr-03	25-Apr-03	11:33:00	11:48:00	15	1	CUSTOMER CAUSED
FORCED	FLAT TOP SUB	26P01	25-Apr-03	25-Apr-03	14:26:00	15:14:00	48	105	PHASE BROKEN
FORCED	LAMARQUE SUBSTATION	1201	25-Apr-03	25-Apr-03	11:36:00	13:30:00	114	4	TRANSFORMER FAILURE
FORCED	LEAGUE CITY MAIN SUBSTATION	1283	25-Apr-03	25-Apr-03	15:34:00	16:10:00	36	1	UNKNOWN
FORCED	ALVIN SUB	1230	26-Apr-03	26-Apr-03	15:00:00	16:00:00	60	2	UNKNOWN
FORCED	FRIENDSWOOD SUBSTATION	1251	26-Apr-03	26-Apr-03	18:00:00	19:16:00	76	4	SQUIRREL
FORCED	LEAGUE CITY MAIN SUBSTATION	1282	26-Apr-03	26-Apr-03	20:30:00	21:35:00	65	2	RODENT
FORCED	MAGNOLIA SUBSTATION	1145	26-Apr-03	26-Apr-03	7:17:00	8:30:00	73	2	FUSE LINK BROKEN
FORCED	TEJAS SUBSTATION	1217	26-Apr-03	26-Apr-03	7:30:00	8:30:00	60	1	BAD CONNECTION
FORCED	DICKINSON SUBSTATION	1277	27-Apr-03	27-Apr-03	13:40:00	15:00:00	80	30	TREES
FORCED	EMORY SUB (ONCOR)	1201	27-Apr-03	28-Apr-03	22:00:00	0:20:00	140	37	UNKNOWN
FORCED	MAGNOLIA SUBSTATION	1145	27-Apr-03	27-Apr-03	14:11:00	15:09:00	58	1	BAD CONNECTION
FORCED	NORTHSIDE SUBSTATION	1295	27-Apr-03	27-Apr-03	9:00:00	10:30:00	90	4	SQUIRREL
FORCED	OLD OCEAN SUBSTATION	1260	27-Apr-03	27-Apr-03	9:30:00	10:45:00	75	36	FUSE LINK BROKEN
FORCED	SWEENEY SUBSTATION	1263	27-Apr-03	27-Apr-03	8:00:00	8:44:00	44	45	SQUIRREL
FORCED	THURBER SUB	1447	27-Apr-03	27-Apr-03	12:54:00	13:22:00	28	1	SQUIRREL
FORCED	16TH STREET SUB	12F71	28-Apr-03	28-Apr-03	19:43:00	20:23:00	40	41	HIGH WIND
FORCED	BELDING SUB	12F164	28-Apr-03	28-Apr-03	16:36:00	16:53:00	17	12	LIGHTNING
FORCED	DICKINSON SUBSTATION	1277	28-Apr-03	28-Apr-03	9:05:00	12:47:00	222	8	VEHICLE HIT POLE OR GUY
FORCED	DICKINSON SUBSTATION	1277	28-Apr-03	28-Apr-03	15:55:00	18:00:00	125	2	TRANSFORMER FAILURE
FORCED	DOWNTOWN 12.5 SUB	12F130	28-Apr-03	28-Apr-03	21:30:00	22:15:00	45	147	HIGH WIND
FORCED	DOWNTOWN 12.5 SUB	12F130	28-Apr-03	28-Apr-03	22:12:00	23:50:00	98	11	HIGH WIND
FORCED	DOWNTOWN 12.5 SUB	12F130	28-Apr-03	28-Apr-03	22:12:00	23:29:00	77	10	HIGH WIND
FORCED	DOWNTOWN 12.5 SUB	12F130	28-Apr-03	28-Apr-03	10:12:00	11:02:00	50	11	HIGH WIND
FORCED	DOWNTOWN 12.5 SUB	12F130	28-Apr-03	28-Apr-03	0:47:00	1:08:00	21	1132	HIGH WIND
FORCED	DOWNTOWN 12.5 SUB	12F130	28-Apr-03	28-Apr-03	11:46:00	12:03:00	17	1132	HIGH WIND
FORCED	FREWAY PARK SUBSTATION	1103	28-Apr-03	28-Apr-03	18:00:00	18:49:00	49	4	SQUIRREL
FORCED	FRIENDSWOOD SUBSTATION	1252	28-Apr-03	28-Apr-03	21:35:00	22:36:00	61	1	UNKNOWN
FORCED	MAGNOLIA SUBSTATION	1149	28-Apr-03	28-Apr-03	9:40:00	11:00:00	80	2	TRANSFORMER FAILURE
FORCED	RED RIVER SUB	2252	28-Apr-03	28-Apr-03	21:26:00	22:15:00	49	5	UNKNOWN

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	SOUTH SUB	1107	28-Apr-03	28-Apr-03	8:38:00	9:00:00	22	1	SQUIRREL
FORCED	ALVIN SUB	1230	29-Apr-03	29-Apr-03	1:30:00	3:00:00	90	35	LIGHTNING
FORCED	ANGLETON SUBSTATION	1155	29-Apr-03	29-Apr-03	8:39:00	11:09:00	150	5	LIGHTNING
FORCED	ANGLETON SUBSTATION	1154	29-Apr-03	29-Apr-03	10:10:00	10:38:00	28	3	LIGHTNING
FORCED	ANGLETON SUBSTATION	1154	29-Apr-03	29-Apr-03	15:23:00	15:50:00	27	3	LIGHTNING
FORCED	ANGLETON SUBSTATION	1243	29-Apr-03	29-Apr-03	8:29:00	9:15:00	46	1	LIGHTNING
FORCED	ANGLETON SUBSTATION	1154	29-Apr-03	29-Apr-03	9:25:00	12:24:00	179	2	TRANSFORMER FAILURE
FORCED	DOWNTOWN 12.5 SUB	12F130	29-Apr-03	29-Apr-03	9:13:00	9:40:00	27	14	LIGHTNING
FORCED	DOWNTOWN 12.5 SUB	12F130	29-Apr-03	29-Apr-03	7:30:00	7:48:00	18	4	HIGH WIND
FORCED	DOWNTOWN 12.5 SUB	1108	29-Apr-03	29-Apr-03	9:54:00	10:17:00	23	7	BIRD
FORCED	FRIENDSWOOD SUBSTATION	1252	29-Apr-03	29-Apr-03	3:10:00	4:10:00	60	30	LIGHTNING
FORCED	FRIENDSWOOD SUBSTATION	13610	29-Apr-03	29-Apr-03	6:00:00	7:30:00	90	3	LIGHTNING
FORCED	NOCONA SUB	25F18	29-Apr-03	29-Apr-03	23:00:00	23:47:00	47	7	LIGHTNING
FORCED	PUCKETT SUB	1233	29-Apr-03	29-Apr-03	4:01:00	6:05:00	124	3	HIGH WIND
FORCED	WEST SUB	1115	29-Apr-03	29-Apr-03	19:20:00	20:25:00	65	13	SQUIRREL
FORCED	ALVIN SUB	1115	30-Apr-03	30-Apr-03	17:46:00	18:40:00	54	2	BAD CONNECTION
FORCED	ALVIN SUB	1115	30-Apr-03	30-Apr-03	20:00:00	20:59:00	59	1	SQUIRREL
FORCED	CORYELL CO SUB	22365	30-Apr-03	30-Apr-03	9:26:00	9:45:00	19	1	LIGHTNING
FORCED	CORYELL CO SUB	22365	30-Apr-03	30-Apr-03	7:32:00	7:55:00	23	1	LIGHTNING
FORCED	DICKINSON SUBSTATION	1272	30-Apr-03	30-Apr-03	11:00:00	11:20:00	20	2	TREES
FORCED	EMORY SUB (ONCOR)	1201	30-Apr-03	30-Apr-03	7:10:00	7:40:00	30	37	LIGHTNING
FORCED	EMORY SUB (ONCOR)	1201	30-Apr-03	30-Apr-03	5:00:00	6:05:00	65	17	LIGHTNING
FORCED	EMORY SUB (ONCOR)	1299	30-Apr-03	30-Apr-03	8:10:00	9:40:00	90	37	ARRESTER FAILURE
FORCED	FREEWAY PARK SUBSTATION	1103	30-Apr-03	30-Apr-03	18:00:00	18:45:00	45	1	BAD CONNECTION
FORCED	FREEWAY PARK SUBSTATION	1298	30-Apr-03	30-Apr-03	11:55:00	13:45:00	110	1	TRANSFORMER FAILURE
FORCED	FREEWAY PARK SUBSTATION	22300	30-Apr-03	30-Apr-03	17:00:00	17:45:00	45	2	SQUIRREL
FORCED	GLEN ROSE SUB	22300	30-Apr-03	30-Apr-03	21:45:00	22:30:00	45	21	TREES
FORCED	GLEN ROSE SUB	22300	30-Apr-03	30-Apr-03	7:30:00	7:50:00	20	1	LIGHTNING
FORCED	GLEN ROSE SUB	23820	30-Apr-03	30-Apr-03	6:15:00	7:00:00	45	1	LIGHTNING
FORCED	HAMILTON CITY SUB	2345	30-Apr-03	30-Apr-03	2:30:00	3:40:00	70	11	LIGHTNING
FORCED	HAMILTON COUNTY SUB	22825	30-Apr-03	30-Apr-03	10:13:00	11:23:00	70	1	FUSE LINK BROKEN
FORCED	HANDLEY SUB	22125	30-Apr-03	30-Apr-03	11:32:00	12:20:00	48	2	UNKNOWN
FORCED	HILL COUNTY SUB	1230	30-Apr-03	30-Apr-03	15:20:00	16:10:00	50	1	LIGHTNING
FORCED	LAKE WHITNEY SUB	1230	30-Apr-03	30-Apr-03	13:57:00	15:59:00	122	8	VEHICLE HIT POLE OR GUY
FORCED	LAKE WHITNEY SUB	2508	30-Apr-03	30-Apr-03	13:57:00	17:15:00	198	42	VEHICLE HIT POLE OR GUY
FORCED	LAKEPOINTE SUB	13374	30-Apr-03	30-Apr-03	16:00:00	17:15:00	75	1	LIGHTNING
FORCED	NOCONA SUB	13610	30-Apr-03	30-Apr-03	23:47:00	23:48:00	1	1	LIGHTNING
FORCED	NOCONA SUB	13610	30-Apr-03	30-Apr-03	5:10:00	5:46:00	36	1	LIGHTNING
FORCED	WALNUT SPRINGS SUB	2200	30-Apr-03	30-Apr-03	7:15:00	8:10:00	55	1	LIGHTNING

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TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	WALNUT SPRINGS SUB	2200	30-Apr-03	30-Apr-03	1:15:00	2:23:00	68	3	LIGHTNING
FORCED	WALNUT SPRINGS SUB	2210	30-Apr-03	30-Apr-03	1:10:00	2:00:00	50	8	LIGHTNING
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1233	30-Apr-03	30-Apr-03	15:50:00	16:15:00	25	1	LIGHTNING
FORCED	WHITNEY SUB	22455	30-Apr-03	30-Apr-03	18:30:00	23:59:00	329	4	VEHICLE HIT POLE OR GUY
FORCED	WHITNEY SUB	22455	30-Apr-03	30-Apr-03	8:39:00	9:00:00	21	2	LIGHTNING
SCHEDULED	JONES STREET SUB	1413	2-Apr-03	2-Apr-03	0:00:00	0:45:00	45	7	HIGH WIND
SCHEDULED	SOUTH SUB	1107	15-Apr-03	15-Apr-03	17:25:00	19:05:00	100	1	CUSTOMER REQUESTED

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TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	ALVIN SUB	1231	1-Oct-03	1-Oct-03	9:54:00	10:30:00	36	4	VINES
FORCED	ANGLETON SUBSTATION	1245	1-Oct-03	1-Oct-03	17:00:00	18:00:00	60	1	VINES
FORCED	ANGLETON SUBSTATION	1155	1-Oct-03	1-Oct-03	14:51:00	15:30:00	39	1	FUSE LINK BROKEN
FORCED	BRAZORIA SUBSTATION	1271	1-Oct-03	1-Oct-03	14:45:00	15:33:00	48	2	LIGHTNING
FORCED	BRAZORIA SUBSTATION	1291	1-Oct-03	1-Oct-03	14:15:00	14:45:00	30	1	LIGHTNING
FORCED	HANDLEY SUB	22825	1-Oct-03	1-Oct-03	11:15:00	11:45:00	30	1	BIRD
FORCED	LAMARQUE SUBSTATION	1204	1-Oct-03	1-Oct-03	0:00:01	3:00:00	180	25	FUSE LINK BROKEN
FORCED	LAMARQUE SUBSTATION	1204	1-Oct-03	1-Oct-03	8:45:00	9:30:00	45	15	TREES
FORCED	SOUTH SUB	1104	1-Oct-03	1-Oct-03	5:46:00	7:46:00	120	33	CABLE TERMINATOR FAILURE
FORCED	WEST SUB	1234	1-Oct-03	1-Oct-03	12:52:00	13:37:00	45	36	SQUIRREL
FORCED	WHITEWRIGHT SUB	12698	1-Oct-03	1-Oct-03	21:10:00	23:10:00	120	30	VEHICLE HIT POLE OR GUY
FORCED	WHITNEY SUB	22450	1-Oct-03	1-Oct-03	15:40:00	16:50:00	70	21	TREES
FORCED	ALVIN SUB	1116	2-Oct-03	2-Oct-03	19:10:00	19:45:00	35	1	SQUIRREL
FORCED	DICKINSON SUBSTATION	1274	2-Oct-03	2-Oct-03	10:22:00	11:15:00	53	4	CUTOUT DOOR BURNED UP
FORCED	FRIENDSWOOD SUBSTATION	1252	2-Oct-03	2-Oct-03	10:26:00	11:00:00	34	2	CUSTOMER
FORCED	JONES STREET SUB	1412	2-Oct-03	2-Oct-03	9:19:00	10:10:00	51	1	VEHICLE HIT POLE OR GUY
FORCED	LAMARQUE SUBSTATION	1204	2-Oct-03	2-Oct-03	3:00:00	5:30:00	150	2	FUSE LINK BROKEN
FORCED	LAMARQUE SUBSTATION	1204	2-Oct-03	2-Oct-03	16:20:00	18:00:00	100	3	FUSE LINK BROKEN
FORCED	LAMARQUE SUBSTATION	1204	2-Oct-03	2-Oct-03	12:15:00	13:15:00	60	25	FUSE LINK BROKEN
FORCED	LAMARQUE SUBSTATION	1202	2-Oct-03	2-Oct-03	8:03:00	10:45:00	162	1	TRANSFORMER FAILURE
FORCED	MAGNOLIA SUBSTATION	1145	2-Oct-03	2-Oct-03	9:57:00	11:22:00	85	1	BROKEN SERVICE
FORCED	SWEENEY SUBSTATION	1128	2-Oct-03	2-Oct-03	14:25:00	15:05:00	40	6	TRANSFORMER FAILURE
FORCED	ANGLETON SUBSTATION	1241	3-Oct-03	3-Oct-03	13:19:00	13:45:00	26	1	TREES
FORCED	ANGLETON SUBSTATION	1240	3-Oct-03	3-Oct-03	17:55:00	18:55:00	60	2	FUSE LINK BROKEN
FORCED	DICKINSON SUBSTATION	1266	3-Oct-03	3-Oct-03	17:00:00	20:00:00	180	1	TRANSFORMER FAILURE
FORCED	FREEWAY PARK SUBSTATION	1298	3-Oct-03	3-Oct-03	19:00:00	22:15:00	195	2	FUSE LINK BROKEN
FORCED	FREEWAY PARK SUBSTATION	1298	3-Oct-03	3-Oct-03	10:05:00	11:10:00	65	20	SQUIRREL
FORCED	HEIGHTS SUBSTATION	1132	3-Oct-03	3-Oct-03	16:30:00	18:30:00	120	1	BAD CONNECTION
FORCED	LAMARQUE SUBSTATION	1201	3-Oct-03	3-Oct-03	17:00:00	20:00:00	180	12	FUSE LINK BROKEN
FORCED	LAMARQUE SUBSTATION	1202	3-Oct-03	3-Oct-03	0:01:00	3:10:00	189	10	FUSE LINK BROKEN
FORCED	ALVIN SUB	1254	4-Oct-03	4-Oct-03	20:45:00	21:30:00	45	1	BAD CONNECTION
FORCED	ALVIN SUB	1257	4-Oct-03	4-Oct-03	14:15:00	15:00:00	45	1	FUSE LINK BROKEN
FORCED	ALVIN SUB	1117	4-Oct-03	4-Oct-03	10:00:00	10:45:00	45	1	FUSE LINK BROKEN
FORCED	ALVIN SUB	1254	4-Oct-03	4-Oct-03	17:45:00	18:30:00	45	1	FUSE LINK BROKEN
FORCED	ALVIN SUB	1254	4-Oct-03	4-Oct-03	8:00:00	8:45:00	45	5	SQUIRREL

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	ALVIN SUB	1116	4-Oct-03	4-Oct-03	2:30:00	3:15:00	45	4	RODENT
FORCED	FREWAY PARK SUBSTATION	1103	4-Oct-03	4-Oct-03	14:00:00	16:15:00	135	3	JUMPER BROKEN OR BURNED
FORCED	FREWAY PARK SUBSTATION	1103	4-Oct-03	4-Oct-03	12:00:00	14:00:00	120	3	FUSE LINK BROKEN
FORCED	FRIENDSWOOD SUBSTATION	1109	4-Oct-03	4-Oct-03	16:30:00	17:15:00	45	20	SQUIRREL
FORCED	HEIGHTS SUBSTATION	1132	4-Oct-03	4-Oct-03	8:45:00	12:00:00	195	1	FUSE LINK BROKEN
FORCED	HEIGHTS SUBSTATION	1132	4-Oct-03	4-Oct-03	8:45:00	10:00:00	75	1	FUSE LINK BROKEN
FORCED	KERMIT NO. 1 SUB	4K04	4-Oct-03	4-Oct-03	10:25:00	10:44:00	19	2	UNKNOWN
FORCED	LEAGUE CITY MAIN SUBSTATION	1281	4-Oct-03	4-Oct-03	19:30:00	20:30:00	60	1	BAD CONNECTION
FORCED	SOUTH SHORE SUBSTATION	1190	4-Oct-03	4-Oct-03	12:42:00	14:00:00	78	35	SQUIRREL
FORCED	WHITWRIGHT SUB	13563	4-Oct-03	5-Oct-03	11:00:00	1:40:00	880	19	LIGHTNING
FORCED	WHITWRIGHT SUB	12575	4-Oct-03	5-Oct-03	23:00:00	0:25:00	85	25	LIGHTNING
FORCED	ALVIN SUB	1259	5-Oct-03	5-Oct-03	10:15:00	11:00:00	45	4	SQUIRREL
FORCED	ANGLETON SUBSTATION	1241	5-Oct-03	5-Oct-03	11:00:00	11:30:00	30	3	CUTOUT DOOR BURNED UP
FORCED	CALIFORNIA SUB	12K86	5-Oct-03	5-Oct-03	19:30:00	20:13:00	43	37	LIGHTNING
FORCED	FREWAY PARK SUBSTATION	1101	5-Oct-03	5-Oct-03	18:30:00	20:00:00	90	1	BAD CONNECTION
FORCED	GATESVILLE 2 SUB	22725	5-Oct-03	5-Oct-03	19:20:00	19:50:00	30	2	LIGHTNING
FORCED	HAMILTON COUNTY SUB	24015	5-Oct-03	5-Oct-03	12:45:00	14:00:00	75	2	UNKNOWN
FORCED	KERMIT NO. 1 SUB	4K04	5-Oct-03	5-Oct-03	19:30:00	19:45:00	15	8	LIGHTNING
FORCED	KERMIT NO. 1 SUB	4K04	5-Oct-03	5-Oct-03	19:30:00	19:45:00	15	20	LIGHTNING
FORCED	SOUTH SHORE SUBSTATION	1190	5-Oct-03	5-Oct-03	17:57:00	20:00:00	123	35	TREES
FORCED	ALVIN SUB	1231	6-Oct-03	6-Oct-03	21:40:00	22:40:00	60	1	CUTOUT DOOR FELL OPEN
FORCED	ANGLETON SUBSTATION	1245	6-Oct-03	6-Oct-03	4:20:00	6:10:00	110	8	TREES
FORCED	CLIFTON #2 SUB	24370	6-Oct-03	6-Oct-03	16:30:00	18:00:00	90	2	LIGHTNING
FORCED	DICKINSON SUBSTATION	1267	6-Oct-03	6-Oct-03	13:30:00	14:11:00	41	2	LIGHTNING
FORCED	FRIENDSWOOD SUBSTATION	1253	6-Oct-03	6-Oct-03	13:00:00	13:14:00	14	10	BIRD
FORCED	HAMILTON COUNTY SUB	24015	6-Oct-03	6-Oct-03	16:15:00	16:22:00	7	1	LIGHTNING
FORCED	HAMILTON COUNTY SUB	24015	6-Oct-03	6-Oct-03	15:41:00	16:15:00	34	1	LIGHTNING
FORCED	KERMIT NO. 1 SUB	4K04	6-Oct-03	6-Oct-03	12:40:00	13:50:00	70	2	LIGHTNING
FORCED	LAKE WHITNEY SUB	1230	6-Oct-03	6-Oct-03	10:30:00	11:00:00	30	20	LIGHTNING
FORCED	LAKE WHITNEY SUB	1230	6-Oct-03	6-Oct-03	10:30:00	11:00:00	30	20	LIGHTNING
FORCED	MAGNOLIA SUBSTATION	1149	6-Oct-03	6-Oct-03	9:35:00	10:20:00	45	1	TREES
FORCED	MAGNOLIA SUBSTATION	1145	6-Oct-03	6-Oct-03	22:00:00	23:30:00	90	1	BARE SECONDARY OR SERVICE
FORCED	RED RIVER SUB	2252	6-Oct-03	6-Oct-03	15:36:00	16:10:00	34	471	VEHICLE HIT POLE OR GUY
FORCED	WHITWRIGHT SUB	12698	6-Oct-03	6-Oct-03	8:10:00	8:39:00	29	12	CONTRACTOR (TNMP)
FORCED	WHITNEY SUB	22455	6-Oct-03	6-Oct-03	15:00:00	15:45:00	45	2	LIGHTNING
FORCED	WHITNEY SUB	22455	6-Oct-03	6-Oct-03	8:45:00	9:45:00	60	1	LIGHTNING
FORCED	WHITNEY SUB	22455	6-Oct-03	6-Oct-03	15:00:00	15:45:00	45	2	LIGHTNING
FORCED	WHITNEY SUB	22455	6-Oct-03	6-Oct-03	8:45:00	9:45:00	60	1	LIGHTNING
FORCED	ANGLETON SUBSTATION	1155	7-Oct-03	7-Oct-03	17:00:00	17:30:00	30	3	HIGH WIND

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	ANGLETON SUBSTATION	1244	7-Oct-03	7-Oct-03	10:08:00	11:49:00	101	1	VINES
FORCED	DEPORT SUB (ONCOR)	22164	7-Oct-03	7-Oct-03	15:00:00	15:40:00	40	1	LIGHTNING
FORCED	FRIENDSWOOD SUBSTATION	1109	7-Oct-03	7-Oct-03	17:00:00	17:37:00	37	1	SQUIRREL
FORCED	RED RIVER SUB	2229	7-Oct-03	7-Oct-03	18:50:00	19:35:00	45	2	BIRD
FORCED	SWEENEY SUBSTATION	1129	7-Oct-03	7-Oct-03	11:30:00	12:00:00	30	30	VEHICLE HIT POLE OR GUY
FORCED	SWEENEY SUBSTATION	1129	7-Oct-03	7-Oct-03	14:30:00	15:40:00	70	1	LIGHTNING
FORCED	DICKINSON SUBSTATION	1274	8-Oct-03	8-Oct-03	12:00:00	12:40:00	40	1	FUSE LINK BROKEN
FORCED	HANDLEY SUB	22825	8-Oct-03	8-Oct-03	17:00:00	19:00:00	120	1	BROKEN SERVICE
FORCED	SWEENEY SUBSTATION	1128	8-Oct-03	8-Oct-03	9:40:00	10:17:00	37	37	FOREIGN OBJECT ON LINE
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1234	8-Oct-03	8-Oct-03	3:30:00	4:38:00	68	3	FOREIGN OBJECT ON LINE
FORCED	ALVIN SUB	1115	9-Oct-03	9-Oct-03	18:00:00	19:00:00	60	3	LIGHTNING
FORCED	ALVIN SUB	1115	9-Oct-03	9-Oct-03	10:12:00	11:30:00	78	50	LIGHTNING
FORCED	ALVIN SUB	1115	9-Oct-03	9-Oct-03	18:00:00	19:30:00	90	2	LIGHTNING
FORCED	ALVIN SUB	1117	9-Oct-03	9-Oct-03	19:30:00	20:15:00	45	1	LIGHTNING
FORCED	ALVIN SUB	1115	9-Oct-03	9-Oct-03	21:00:00	22:30:00	90	4	LIGHTNING
FORCED	ALVIN SUB	1257	9-Oct-03	9-Oct-03	15:30:00	18:00:00	150	1	TRANSFORMER FAILURE
FORCED	BRAZORIA SUBSTATION	1291	9-Oct-03	9-Oct-03	22:30:00	23:49:00	79	65	LIGHTNING
FORCED	JONES STREET SUB	1431	9-Oct-03	9-Oct-03	4:39:00	5:20:00	41	4	CUTOUT DOOR FELL OPEN
FORCED	LEAGUE CITY MAIN SUBSTATION	1285	9-Oct-03	9-Oct-03	17:00:00	18:00:00	60	4	TREES
FORCED	NORTHSIDE SUBSTATION	1228	9-Oct-03	9-Oct-03	17:20:00	21:45:00	265	3	TRANSFORMER FAILURE
FORCED	SWEENEY SUBSTATION	1128	9-Oct-03	9-Oct-03	20:30:00	22:24:00	114	60	LIGHTNING
FORCED	SWEENEY SUBSTATION	1128	9-Oct-03	9-Oct-03	22:30:00	23:15:00	45	30	LIGHTNING
FORCED	SWEENEY SUBSTATION	1128	9-Oct-03	9-Oct-03	22:30:00	23:17:00	47	15	LIGHTNING
FORCED	SWEENEY SUBSTATION	1128	9-Oct-03	9-Oct-03	11:00:00	11:59:00	59	175	LIGHTNING
FORCED	ANGLETON SUBSTATION	1240	10-Oct-03	10-Oct-03	12:15:00	12:59:00	44	25	HIGH WIND
FORCED	BRAZORIA SUBSTATION	1291	10-Oct-03	10-Oct-03	18:30:00	19:05:00	35	1	TREES
FORCED	FRIENDSWOOD SUBSTATION	1252	10-Oct-03	10-Oct-03	15:14:00	16:14:00	60	10	SQUIRREL
FORCED	SWEENEY SUBSTATION	1264	10-Oct-03	10-Oct-03	1:00:00	4:30:00	210	30	LIGHTNING
FORCED	SWEENEY SUBSTATION	1128	10-Oct-03	10-Oct-03	0:01:00	1:00:00	59	1	LIGHTNING
FORCED	ALVIN SUB	1257	11-Oct-03	11-Oct-03	9:00:00	11:45:00	165	4	LIGHTNING
FORCED	BRAZORIA SUBSTATION	1291	11-Oct-03	11-Oct-03	18:00:00	18:44:00	44	2	LIGHTNING
FORCED	CALIFORNIA SUB	12K86	11-Oct-03	11-Oct-03	12:30:00	13:43:00	73	37	PHASE OFF INSULATOR
FORCED	FRIENDSWOOD SUBSTATION	1108	11-Oct-03	11-Oct-03	13:30:00	14:34:00	64	2	SQUIRREL
FORCED	LEAGUE CITY MAIN SUBSTATION	1281	11-Oct-03	11-Oct-03	14:35:00	16:26:00	111	1	BROKEN SERVICE
FORCED	ALVIN SUB	1231	12-Oct-03	12-Oct-03	11:20:00	13:52:00	152	1	BAD CONNECTION
FORCED	GLEN ROSE SUB	22300	12-Oct-03	12-Oct-03	16:30:00	17:30:00	60	6	SQUIRREL
FORCED	NOCONA SUB	13370	12-Oct-03	12-Oct-03	7:00:00	8:00:00	60	1	CAT
FORCED	ALVIN SUB	1117	13-Oct-03	13-Oct-03	13:16:00	14:30:00	74	1	OVERLOAD

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	ALVIN SUB	1230	13-Oct-03	13-Oct-03	13:30:00	14:30:00	60	2	SQUIRREL
FORCED	BRAZORIA SUBSTATION	1271	13-Oct-03	13-Oct-03	13:28:00	14:20:00	52	1	SQUIRREL
FORCED	DICKINSON SUBSTATION	1274	13-Oct-03	13-Oct-03	10:15:00	10:30:00	15	40	URD CABLE FAILURE
FORCED	DICKINSON SUBSTATION	1274	13-Oct-03	13-Oct-03	18:25:00	19:40:00	75	100	TREES
FORCED	FREEWAY PARK SUBSTATION	1103	13-Oct-03	13-Oct-03	10:00:00	10:15:00	15	1	CUTOUT DOOR FELL OPEN
FORCED	FRIENDSWOOD SUBSTATION	1251	13-Oct-03	13-Oct-03	13:08:00	14:00:00	52	40	UNKNOWN
FORCED	THURBER SUB	1447	13-Oct-03	13-Oct-03	3:00:00	8:00:00	300	75	VEHICLE HIT POLE OR GUY
FORCED	ALVIN SUB	1117	14-Oct-03	14-Oct-03	9:10:00	10:00:00	50	20	VEHICLE HIT CONDUCTOR
FORCED	ALVIN SUB	1117	14-Oct-03	14-Oct-03	13:40:00	15:00:00	80	1	JUMPER BROKEN OR BURNED
FORCED	ALVIN SUB	1230	14-Oct-03	14-Oct-03	12:00:00	14:00:00	120	3	TREES
FORCED	DEPORT SUB (ONCOR)	22164	14-Oct-03	14-Oct-03	14:55:00	15:15:00	20	13	CUSTOMER CAUSED
FORCED	DICKINSON SUBSTATION	1266	14-Oct-03	14-Oct-03	23:30:00	3:50:00	260	1	VEHICLE HIT POLE OR GUY
FORCED	FREEWAY PARK SUBSTATION	1299	14-Oct-03	14-Oct-03	21:30:00	23:30:00	120	1	VINES
FORCED	FRIENDSWOOD SUBSTATION	1252	14-Oct-03	14-Oct-03	7:15:00	8:00:00	45	1	UNKNOWN
FORCED	LEAGUE CITY MAIN SUBSTATION	1282	14-Oct-03	14-Oct-03	20:55:00	21:48:00	53	2	BAD CONNECTION
FORCED	MAGNOLIA SUBSTATION	1145	14-Oct-03	14-Oct-03	18:50:00	20:00:00	70	15	TREES
FORCED	THURBER SUB	1447	14-Oct-03	14-Oct-03	6:00:00	7:25:00	85	12	TREES
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1235	14-Oct-03	14-Oct-03	11:00:00	12:03:00	63	1	SQUIRREL
FORCED	ALVIN SUB	1117	15-Oct-03	15-Oct-03	10:30:00	11:15:00	45	25	VEHICLE HIT CONDUCTOR
FORCED	DICKINSON SUBSTATION	1277	15-Oct-03	15-Oct-03	15:48:00	16:24:00	36	3	VINES
FORCED	FRIENDSWOOD SUBSTATION	1108	15-Oct-03	15-Oct-03	19:01:00	20:30:00	89	2	SQUIRREL
FORCED	HEIGHTS SUBSTATION	1134	15-Oct-03	15-Oct-03	17:00:00	17:45:00	45	2	FUSE LINK BROKEN
FORCED	LAMARQUE SUBSTATION	1204	15-Oct-03	15-Oct-03	19:30:00	20:30:00	60	3	TREES
FORCED	PECOS MAIN SUB	12P02	15-Oct-03	15-Oct-03	11:15:00	13:00:00	105	14	ARRESTER FAILURE
FORCED	RED RIVER SUB	2229	15-Oct-03	15-Oct-03	12:25:00	12:55:00	30	210	VEHICLE HIT CONDUCTOR
FORCED	SWEENEY SUBSTATION	1128	15-Oct-03	15-Oct-03	13:40:00	14:15:00	35	1	UNKNOWN
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1235	15-Oct-03	15-Oct-03	17:15:00	18:00:00	45	2	SQUIRREL
FORCED	AIRPORT SUB	12F44	16-Oct-03	16-Oct-03	11:25:00	12:18:00	53	1	NEUTRAL OR STATIC BROKEN
FORCED	BRAZORIA SUBSTATION	1270	16-Oct-03	16-Oct-03	9:00:00	10:00:00	60	5	JUMPER BROKEN OR BURNED
FORCED	DICKINSON SUBSTATION	1272	16-Oct-03	16-Oct-03	18:20:00	19:55:00	95	20	TREES
FORCED	HEIGHTS SUBSTATION	1224	16-Oct-03	16-Oct-03	8:48:00	9:40:00	52	1	TRANSFORMER FAILURE
FORCED	LEAGUE CITY MAIN SUBSTATION	1285	16-Oct-03	16-Oct-03	8:31:00	9:30:00	59	10	CONTRACTOR (TNMP)
FORCED	PETROLIA SUB	12260	16-Oct-03	16-Oct-03	10:30:00	12:00:00	90	1	SQUIRREL
FORCED	ALVIN SUB	1117	17-Oct-03	17-Oct-03	12:30:00	13:15:00	45	2	HIGH WIND
FORCED	ANGLETON SUBSTATION	1154	17-Oct-03	17-Oct-03	8:30:00	9:00:00	30	2	BIRD
FORCED	BRAZORIA SUBSTATION	1290	17-Oct-03	17-Oct-03	9:14:00	9:50:00	36	22	FOREIGN OBJECT ON LINE
FORCED	BRAZORIA SUBSTATION	1290	17-Oct-03	17-Oct-03	13:40:00	15:00:00	80	1	FUSE LINK BROKEN
FORCED	DICKINSON SUBSTATION	1274	17-Oct-03	17-Oct-03	18:30:00	19:00:00	30	2	BIRD
FORCED	FRIENDSWOOD SUBSTATION	1109	17-Oct-03	17-Oct-03	0:06:00	1:15:00	69	2	RODENT

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	JONES STREET SUB	1411	17-Oct-03	17-Oct-03	16:50:00	17:40:00	50	3	SQUIRREL
FORCED	MERIDIAN SUB	23210	17-Oct-03	17-Oct-03	16:20:00	17:45:00	85	40	JUMPER BROKEN OR BURNED
FORCED	ANGLETON SUBSTATION	1243	18-Oct-03	18-Oct-03	18:00:00	18:38:00	38	2	SQUIRREL
FORCED	ANGLETON SUBSTATION	1240	18-Oct-03	18-Oct-03	22:00:00	23:22:00	82	1	CUTOUT DOOR BURNED UP
FORCED	ANGLETON SUBSTATION	1243	18-Oct-03	18-Oct-03	9:30:00	10:22:00	52	18	SWITCH FAILURE
FORCED	ANGLETON SUBSTATION	1240	18-Oct-03	18-Oct-03	17:00:00	17:47:00	47	1	SQUIRREL
FORCED	CLIMAX SUB	22110	18-Oct-03	18-Oct-03	9:15:00	11:45:00	150	3	URD CABLE FAILURE
FORCED	DICKINSON SUBSTATION	1272	18-Oct-03	18-Oct-03	17:30:00	18:20:00	50	1	SQUIRREL
FORCED	FREEWAY PARK SUBSTATION	1298	18-Oct-03	18-Oct-03	14:36:00	15:07:00	31	900	SWITCH FAILURE
FORCED	FRIENDSWOOD SUBSTATION	1107	18-Oct-03	18-Oct-03	8:40:00	10:12:00	92	4	SQUIRREL
FORCED	OLD OCEAN SUBSTATION	1260	18-Oct-03	18-Oct-03	14:00:00	15:30:00	90	1	LIGHTNING
FORCED	SWEENEY SUBSTATION	1264	18-Oct-03	18-Oct-03	0:30:00	1:45:00	75	1	VEHICLE HIT POLE OR GUY
FORCED	WHITNEY SUB	22450	18-Oct-03	18-Oct-03	20:09:00	20:58:00	49	4	UNKNOWN
FORCED	WHITNEY SUB	22455	18-Oct-03	18-Oct-03	15:05:00	16:25:00	80	1	UNKNOWN
FORCED	ANGLETON SUBSTATION	1155	19-Oct-03	19-Oct-03	12:00:00	12:44:00	44	2	FOREIGN OBJECT ON LINE
FORCED	ANGLETON SUBSTATION	1240	19-Oct-03	19-Oct-03	16:30:00	17:46:00	76	3	SQUIRREL
FORCED	DEPORT SUB (ONCOR)	22164	19-Oct-03	19-Oct-03	1:15:00	2:40:00	85	10	UNKNOWN
FORCED	DICKINSON SUBSTATION	1274	19-Oct-03	19-Oct-03	8:00:00	10:00:00	120	12	SQUIRREL
FORCED	FRIENDSWOOD SUBSTATION	1251	19-Oct-03	19-Oct-03	10:45:00	13:05:00	140	40	CUTOUT DOOR BURNED UP
FORCED	LAMARQUE SUBSTATION	1201	19-Oct-03	19-Oct-03	1:55:00	2:45:00	50	2	RODENT
FORCED	LAMARQUE SUBSTATION	1202	19-Oct-03	19-Oct-03	15:30:00	17:30:00	120	10	SQUIRREL
FORCED	LAMARQUE SUBSTATION	1202	19-Oct-03	19-Oct-03	15:30:00	17:30:00	120	10	SQUIRREL
FORCED	LONE OAK SUB	13384	19-Oct-03	19-Oct-03	12:20:00	13:05:00	45	60	UNKNOWN
FORCED	NORTHSIDE SUBSTATION	1293	19-Oct-03	19-Oct-03	18:45:00	20:00:00	75	4	SQUIRREL
FORCED	WHITNEY SUB	22455	19-Oct-03	19-Oct-03	1:50:00	2:50:00	60	18	UNKNOWN
FORCED	ANGLETON SUBSTATION	1240	20-Oct-03	20-Oct-03	15:47:00	16:30:00	43	1	OTHER
FORCED	ANGLETON SUBSTATION	1154	20-Oct-03	20-Oct-03	15:47:00	18:40:00	173	4	CUTOUT DOOR BURNED UP
FORCED	ANGLETON SUBSTATION	1154	20-Oct-03	20-Oct-03	9:56:00	10:36:00	40	29	SQUIRREL
FORCED	BRAZORIA SUBSTATION	1290	20-Oct-03	20-Oct-03	12:00:00	12:20:00	20	1	FUSE LINK BROKEN
FORCED	DICKINSON SUBSTATION	1274	20-Oct-03	20-Oct-03	11:09:00	11:40:00	31	1	FUSE LINK BROKEN
FORCED	DICKINSON SUBSTATION	1274	20-Oct-03	20-Oct-03	18:00:00	18:50:00	50	1	BIRD
FORCED	LEAGUE CITY MAIN SUBSTATION	1282	20-Oct-03	20-Oct-03	11:57:00	13:46:00	109	1	SQUIRREL
FORCED	NORTHSIDE SUBSTATION	1295	20-Oct-03	20-Oct-03	11:24:00	12:00:00	36	17	SQUIRREL
FORCED	WEST SUB	1235	20-Oct-03	20-Oct-03	8:15:00	8:35:00	20	2	SQUIRREL
FORCED	ANGLETON SUBSTATION	1241	21-Oct-03	21-Oct-03	16:53:00	18:00:00	67	50	VEHICLE HIT CONDUCTOR
FORCED	ANGLETON SUBSTATION	1245	21-Oct-03	21-Oct-03	10:30:00	11:11:00	41	4	BAD CONNECTION
FORCED	CLIMAX SUB	2270	21-Oct-03	21-Oct-03	14:33:00	14:36:00	3	453	TREES
FORCED	DICKINSON SUBSTATION	1266	21-Oct-03	21-Oct-03	7:15:00	7:55:00	40	17	VEHICLE HIT POLE OR GUY

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TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	FRIENDSWOOD SUBSTATION	1109	21-Oct-03	21-Oct-03	9:30:00	10:00:00	30	2	UNKNOWN
FORCED	FRIENDSWOOD SUBSTATION	1108	21-Oct-03	21-Oct-03	10:00:00	10:40:00	40	3	HARDWARE LOOSE OR BROKEN
FORCED	MAGNOLIA SUBSTATION	1144	21-Oct-03	21-Oct-03	3:06:00	7:15:00	249	60	CONDUCTOR BURNED DOWN
FORCED	SWEENEY SUBSTATION	1129	21-Oct-03	21-Oct-03	18:00:00	19:00:00	60	8	TREES
FORCED	VALLEY MILLS SUB	22575	21-Oct-03	21-Oct-03	10:15:00	11:40:00	85	58	VEHICLE HIT CONDUCTOR
FORCED	VALLEY MILLS SUB	22575	21-Oct-03	21-Oct-03	11:40:00	14:52:00	192	4	VEHICLE HIT CONDUCTOR
FORCED	WEST SUB	1202	21-Oct-03	22-Oct-03	22:45:00	1:13:00	148	25	URD CABLE FAILURE
FORCED	ANGLETON SUBSTATION	1240	22-Oct-03	22-Oct-03	21:30:00	22:30:00	60	2	TRANSFORMER FAILURE
FORCED	FREEWAY PARK SUBSTATION	1103	22-Oct-03	22-Oct-03	9:35:00	10:30:00	55	2	FUSE LINK BROKEN
FORCED	NORTHSIDE SUBSTATION	1292	22-Oct-03	22-Oct-03	15:12:00	15:50:00	38	1	BIRD
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1233	22-Oct-03	22-Oct-03	10:00:00	10:50:00	50	1	SNAKE
FORCED	WHITNEY SUB	22450	22-Oct-03	22-Oct-03	14:30:00	15:00:00	30	1	SQUIRREL
FORCED	WHITNEY SUB	22450	22-Oct-03	22-Oct-03	14:30:00	15:00:00	30	1	SQUIRREL
FORCED	ALVIN SUB	1257	23-Oct-03	23-Oct-03	15:00:00	15:30:00	30	1	SQUIRREL
FORCED	BRAZORIA SUBSTATION	1270	23-Oct-03	23-Oct-03	15:45:00	16:00:00	15	1	FOREIGN OBJECT ON LINE
FORCED	CALIFORNIA SUB	12K87	23-Oct-03	23-Oct-03	13:30:00	14:25:00	55	1	HOT LINE CLAMP LOOSE
FORCED	DICKINSON SUBSTATION	1274	23-Oct-03	23-Oct-03	10:07:00	10:55:00	48	47	VEHICLE HIT CONDUCTOR
FORCED	DICKINSON SUBSTATION	1279	23-Oct-03	23-Oct-03	11:58:00	12:45:00	47	17	TREES
FORCED	FREEWAY PARK SUBSTATION	1298	23-Oct-03	23-Oct-03	8:20:00	9:35:00	75	18	FUSE LINK BROKEN
FORCED	LAMARQUE SUBSTATION	1204	23-Oct-03	23-Oct-03	12:07:00	13:20:00	73	2	SQUIRREL
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1234	23-Oct-03	23-Oct-03	14:17:00	14:40:00	23	1	LIGHTNING
FORCED	WEST SUB	1221	23-Oct-03	23-Oct-03	5:45:00	6:20:00	35	4	BIRD
FORCED	ALVIN SUB	1116	24-Oct-03	24-Oct-03	14:24:00	15:30:00	66	1	MOTOR STARTING SURGE
FORCED	ALVIN SUB	1284	24-Oct-03	24-Oct-03	13:38:00	14:30:00	52	2	SQUIRREL
FORCED	ANGLETON SUBSTATION	1154	24-Oct-03	24-Oct-03	4:45:00	6:08:00	83	4	VINES
FORCED	ANGLETON SUBSTATION	1244	24-Oct-03	24-Oct-03	16:31:00	17:20:00	49	90	BAD CONNECTION
FORCED	ANGLETON SUBSTATION	1274	24-Oct-03	24-Oct-03	13:58:00	14:42:00	44	1	TREES
FORCED	GATESVILLE 2 SUB	22725	24-Oct-03	24-Oct-03	17:45:00	18:15:00	30	4	SQUIRREL
FORCED	GLEN ROSE SUB	22300	24-Oct-03	24-Oct-03	5:00:00	6:35:00	95	2	VINES
FORCED	LEAGUE CITY MAIN SUBSTATION	1284	24-Oct-03	24-Oct-03	10:15:00	11:25:00	70	1	LIGHTNING
FORCED	LEAGUE CITY MAIN SUBSTATION	1281	24-Oct-03	24-Oct-03	10:17:00	10:55:00	38	3	LIGHTNING
FORCED	SWEENEY SUBSTATION	1129	24-Oct-03	24-Oct-03	18:00:00	19:00:00	60	1	FUSE LINK BROKEN
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1235	24-Oct-03	24-Oct-03	23:00:00	23:59:00	59	2	VEHICLE HIT POLE OR GUY
FORCED	ALVIN SUB	1254	25-Oct-03	25-Oct-03	15:00:00	15:30:00	30	2	LIGHTNING
FORCED	ALVIN SUB	1230	25-Oct-03	25-Oct-03	10:45:00	13:00:00	135	1	LIGHTNING
FORCED	ALVIN SUB	1230	25-Oct-03	25-Oct-03	18:20:00	19:00:00	40	2	TRANSFORMER FAILURE
FORCED	ANGLETON SUBSTATION	1240	25-Oct-03	25-Oct-03	21:40:00	23:07:00	87	2	SQUIRREL
FORCED	ANGLETON SUBSTATION	1155	25-Oct-03	25-Oct-03	19:30:00	21:30:00	120	30	HIGH WIND
FORCED	ANGLETON SUBSTATION	1155	25-Oct-03	25-Oct-03	19:30:00	20:21:00	51	20	LIGHTNING

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TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	DICKINSON SUBSTATION	1279	25-Oct-03	25-Oct-03	10:00:00	15:15:00	315	1	LIGHTNING
FORCED	DICKINSON SUBSTATION	1279	25-Oct-03	25-Oct-03	10:00:00	14:05:00	245	5	LIGHTNING
FORCED	DICKINSON SUBSTATION	1274	25-Oct-03	25-Oct-03	10:00:00	13:45:00	225	20	LIGHTNING
FORCED	DICKINSON SUBSTATION	1277	25-Oct-03	25-Oct-03	10:00:00	12:55:00	175	2	LIGHTNING
FORCED	DICKINSON SUBSTATION	1277	25-Oct-03	25-Oct-03	10:00:00	12:30:00	150	1	LIGHTNING
FORCED	DICKINSON SUBSTATION	1279	25-Oct-03	25-Oct-03	17:00:00	17:30:00	30	15	LIGHTNING
FORCED	DICKINSON SUBSTATION	1277	25-Oct-03	25-Oct-03	9:00:00	10:00:00	60	20	LIGHTNING
FORCED	DICKINSON SUBSTATION	1277	25-Oct-03	25-Oct-03	10:45:00	11:30:00	45	8	LIGHTNING
FORCED	DICKINSON SUBSTATION	1279	25-Oct-03	25-Oct-03	14:00:00	14:30:00	30	1	LIGHTNING
FORCED	DICKINSON SUBSTATION	1277	25-Oct-03	25-Oct-03	12:00:00	12:45:00	45	2	LIGHTNING
FORCED	DICKINSON SUBSTATION	1277	25-Oct-03	25-Oct-03	12:30:00	13:00:00	30	2	LIGHTNING
FORCED	FREWAY PARK SUBSTATION	1102	25-Oct-03	25-Oct-03	9:30:00	11:30:00	120	10	LIGHTNING
FORCED	FREWAY PARK SUBSTATION	1299	25-Oct-03	25-Oct-03	17:00:00	18:00:00	60	1	LIGHTNING
FORCED	FREWAY PARK SUBSTATION	1298	25-Oct-03	25-Oct-03	12:30:00	15:30:00	180	4	LIGHTNING
FORCED	FREWAY PARK SUBSTATION	1299	25-Oct-03	25-Oct-03	12:00:00	13:00:00	60	1	LIGHTNING
FORCED	FREWAY PARK SUBSTATION	1298	25-Oct-03	25-Oct-03	9:30:00	12:10:00	160	1	LIGHTNING
FORCED	FRIENDSWOOD SUBSTATION	1293	25-Oct-03	25-Oct-03	14:03:00	15:09:00	66	1	SQUIRREL
FORCED	HAMILTON CITY SUB	22785	25-Oct-03	25-Oct-03	13:00:00	14:00:00	60	7	VEHICLE HIT POLE OR GUY
FORCED	HEIGHTS SUBSTATION	1134	25-Oct-03	25-Oct-03	10:00:00	11:45:00	105	4	LIGHTNING
FORCED	HEIGHTS SUBSTATION	1134	25-Oct-03	25-Oct-03	10:00:00	12:30:00	150	4	LIGHTNING
FORCED	HEIGHTS SUBSTATION	1224	25-Oct-03	25-Oct-03	5:35:00	6:40:00	65	3	RODENT
FORCED	LAMARQUE SUBSTATION	1110	25-Oct-03	25-Oct-03	23:30:00	1:30:00	120	3	LIGHTNING
FORCED	LEAGUE CITY MAIN SUBSTATION	1285	25-Oct-03	25-Oct-03	12:00:00	14:00:00	120	2	VEHICLE HIT POLE OR GUY
FORCED	MAGNOLIA SUBSTATION	1145	25-Oct-03	25-Oct-03	8:22:00	9:23:00	61	6	LIGHTNING
FORCED	MAGNOLIA SUBSTATION	1149	25-Oct-03	25-Oct-03	15:41:00	16:29:00	48	1	LIGHTNING
FORCED	NORTHSIDE SUBSTATION	1295	25-Oct-03	25-Oct-03	9:27:00	11:15:00	108	83	LIGHTNING
FORCED	NORTHSIDE SUBSTATION	1295	25-Oct-03	25-Oct-03	9:27:00	13:50:00	263	26	LIGHTNING
FORCED	AIRPORT SUB	12F44	26-Oct-03	26-Oct-03	12:20:00	13:30:00	70	1	SNOW
FORCED	ALVIN SUB	1231	26-Oct-03	26-Oct-03	4:15:00	8:00:00	225	4	TRANSFORMER FAILURE
FORCED	ALVIN SUB	1259	26-Oct-03	26-Oct-03	2:00:00	4:00:00	120	1	BARE SECONDARY OR SERVICE
FORCED	ANGLETON SUBSTATION	1155	26-Oct-03	26-Oct-03	0:01:00	1:00:00	59	2	LIGHTNING
FORCED	BRAZORIA SUBSTATION	1270	26-Oct-03	26-Oct-03	9:30:00	10:15:00	45	2	LIGHTNING
FORCED	CORYELL CO SUB	22365	26-Oct-03	26-Oct-03	6:00:00	7:00:00	60	20	TREES
FORCED	DICKINSON SUBSTATION	1272	26-Oct-03	26-Oct-03	1:40:00	2:45:00	65	4	LIGHTNING
FORCED	DICKINSON SUBSTATION	1272	26-Oct-03	26-Oct-03	5:40:00	7:15:00	95	4	LIGHTNING
FORCED	DOWNTOWN 12.5 SUB	12F114	26-Oct-03	26-Oct-03	12:20:00	12:45:00	25	5	BIRD
FORCED	DOWNTOWN 12.5 SUB	12F130	26-Oct-03	26-Oct-03	8:55:00	10:07:00	72	450	SNOW
FORCED	FRIENDSWOOD SUBSTATION	1107	26-Oct-03	26-Oct-03	1:05:00	3:29:00	144	8	ARRESTER FAILURE

TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	FRIENDSWOOD SUBSTATION	1253	26-Oct-03	26-Oct-03	8:00:00	9:02:00	62	1	TREES
FORCED	FRIENDSWOOD SUBSTATION	1108	26-Oct-03	26-Oct-03	9:04:00	9:48:00	44	2	SQUIRREL
FORCED	HEIGHT'S SUBSTATION	1222	26-Oct-03	26-Oct-03	14:15:00	14:55:00	40	1	LIGHTNING
FORCED	LEAGUE CITY MAIN SUBSTATION	1282	26-Oct-03	26-Oct-03	21:30:00	22:45:00	75	3	SQUIRREL
FORCED	MAGNOLIA SUBSTATION	1150	26-Oct-03	26-Oct-03	7:30:00	8:30:00	60	1	SQUIRREL
FORCED	TEJAS SUBSTATION	1215	26-Oct-03	26-Oct-03	10:15:00	10:55:00	40	1	LIGHTNING
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1235	26-Oct-03	26-Oct-03	10:30:00	12:00:00	90	1	HIGH WIND
FORCED	ALVIN SUB	1254	27-Oct-03	27-Oct-03	5:00:00	5:45:00	45	4	SQUIRREL
FORCED	ALVIN SUB	1115	27-Oct-03	27-Oct-03	7:00:00	7:30:00	30	3	SQUIRREL
FORCED	ALVIN SUB	1230	27-Oct-03	27-Oct-03	10:53:00	11:30:00	37	1	SQUIRREL
FORCED	ALVIN SUB	1284	27-Oct-03	27-Oct-03	14:00:00	14:50:00	50	25	SQUIRREL
FORCED	ALVIN SUB	1115	27-Oct-03	27-Oct-03	14:55:00	15:30:00	35	1	SQUIRREL
FORCED	ANGLETON SUBSTATION	1242	27-Oct-03	27-Oct-03	10:50:00	11:40:00	50	1	VINES
FORCED	ANGLETON SUBSTATION	1155	27-Oct-03	27-Oct-03	10:00:00	10:50:00	50	1	LIGHTNING
FORCED	ANGLETON SUBSTATION	1243	27-Oct-03	27-Oct-03	19:00:00	20:00:00	60	1	SQUIRREL
FORCED	FREEWAY PARK SUBSTATION	1101	27-Oct-03	27-Oct-03	7:58:00	12:00:00	242	4	FUSE LINK BROKEN
FORCED	FRIENDSWOOD SUBSTATION	1108	27-Oct-03	27-Oct-03	17:20:00	20:11:00	171	2	ARRESTER FAILURE
FORCED	FRIENDSWOOD SUBSTATION	1251	27-Oct-03	27-Oct-03	13:26:00	14:00:00	34	4	SQUIRREL
FORCED	FRIENDSWOOD SUBSTATION	1107	27-Oct-03	27-Oct-03	9:08:00	10:21:00	73	24	SQUIRREL
FORCED	GLEN ROSE SUB	23875	27-Oct-03	27-Oct-03	17:30:00	18:45:00	75	4	SQUIRREL
FORCED	HEIGHT'S SUBSTATION	1134	27-Oct-03	27-Oct-03	2:00:00	2:45:00	45	3	RODENT
FORCED	KRUGERVILLE SUB	2604	27-Oct-03	27-Oct-03	6:30:00	7:30:00	60	30	SQUIRREL
FORCED	LAMARQUE SUBSTATION	1201	27-Oct-03	27-Oct-03	14:09:00	15:00:00	51	2	SQUIRREL
FORCED	LEAGUE CITY MAIN SUBSTATION	1282	27-Oct-03	27-Oct-03	12:52:00	13:57:00	65	20	SQUIRREL
FORCED	LEAGUE CITY MAIN SUBSTATION	1285	27-Oct-03	27-Oct-03	11:00:00	11:36:00	36	1	SQUIRREL
FORCED	TEJAS SUBSTATION	1217	27-Oct-03	27-Oct-03	7:20:00	9:00:00	100	1	LIGHTNING
FORCED	TEJAS SUBSTATION	1217	27-Oct-03	27-Oct-03	7:50:00	9:19:00	89	5	OTHER
FORCED	WEST COLUMBIA LOCAL SUBSTATION	1233	27-Oct-03	27-Oct-03	12:00:00	12:20:00	20	2	SQUIRREL
FORCED	ALVIN SUB	1116	28-Oct-03	28-Oct-03	8:19:00	9:30:00	71	4	SQUIRREL
FORCED	ALVIN SUB	1231	28-Oct-03	28-Oct-03	11:13:00	12:00:00	47	4	SQUIRREL
FORCED	ANGLETON SUBSTATION	1154	28-Oct-03	28-Oct-03	14:44:00	15:30:00	46	2	VINES
FORCED	DICKINSON SUBSTATION	1277	28-Oct-03	28-Oct-03	11:37:00	12:46:00	69	1	SQUIRREL
FORCED	DOWNTOWN 12.5 SUB	12F114	28-Oct-03	28-Oct-03	8:30:00	8:45:00	15	73	UNKNOWN
FORCED	FREEWAY PARK SUBSTATION	1298	28-Oct-03	28-Oct-03	7:35:00	9:10:00	95	2	FUSE LINK BROKEN
FORCED	FREEWAY PARK SUBSTATION	1298	28-Oct-03	28-Oct-03	7:35:00	9:00:00	85	20	FUSE LINK BROKEN
FORCED	FRIENDSWOOD SUBSTATION	1107	28-Oct-03	28-Oct-03	9:10:00	10:20:00	70	2	SQUIRREL
FORCED	LAMARQUE SUBSTATION	1110	28-Oct-03	28-Oct-03	11:15:00	12:25:00	70	3	FUSE LINK BROKEN
FORCED	MAGNOLIA SUBSTATION	1145	28-Oct-03	28-Oct-03	10:22:00	10:52:00	30	10	SQUIRREL
FORCED	ALVIN SUB	1117	29-Oct-03	29-Oct-03	8:34:00	9:38:00	64	4	SQUIRREL

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TYPE (CLASS)	SUBSTATION NAME	CIRCUIT NUMBER (FEEDER)	DATE OFF	DATE ON	TIME OFF	TIME ON	OUTAGE DURATION	CUSTOMERS INTERRUPTED	OUTAGE CAUSE
FORCED	ANGLETON SUBSTATION	1245	29-Oct-03	29-Oct-03	10:31:00	11:22:00	51	1	BAD CONNECTION
FORCED	ANGLETON SUBSTATION	1155	29-Oct-03	29-Oct-03	13:56:00	15:10:00	74	1	FUSE LINK BROKEN
FORCED	DICKINSON SUBSTATION	1274	29-Oct-03	29-Oct-03	9:38:00	10:30:00	52	1	FUSE LINK BROKEN
FORCED	DICKINSON SUBSTATION	1277	29-Oct-03	29-Oct-03	17:00:00	18:00:00	60	1	FUSE LINK BROKEN
FORCED	FREEWAY PARK SUBSTATION	1298	29-Oct-03	29-Oct-03	20:00:00	22:40:00	160	2	FUSE LINK BROKEN
FORCED	FREEWAY PARK SUBSTATION	1103	29-Oct-03	29-Oct-03	19:00:00	21:00:00	120	1	FUSE LINK BROKEN
FORCED	LEAGUE CITY MAIN SUBSTATION	1282	29-Oct-03	29-Oct-03	9:00:00	9:25:00	25	2	SQUIRREL
FORCED	MAGNOLIA SUBSTATION	1145	29-Oct-03	29-Oct-03	8:09:00	8:45:00	36	1	SQUIRREL
FORCED	NORTHSIDE SUBSTATION	1228	29-Oct-03	29-Oct-03	12:57:00	13:40:00	43	2	TREES
FORCED	NORTHSIDE SUBSTATION	1282	29-Oct-03	29-Oct-03	16:33:00	17:30:00	57	2	SQUIRREL
FORCED	WHITWRIGHT SUB	13563	29-Oct-03	29-Oct-03	19:00:00	19:30:00	30	15	FOREIGN OBJECT ON LINE
FORCED	16TH STREET SUB	12F71	30-Oct-03	30-Oct-03	11:40:00	12:10:00	30	1	BIRD
FORCED	ANGLETON SUBSTATION	1244	30-Oct-03	30-Oct-03	8:07:00	9:45:00	98	35	HIGH WIND
FORCED	ANGLETON SUBSTATION	1153	30-Oct-03	30-Oct-03	14:51:00	15:45:00	54	4	BAD CONNECTION
FORCED	CLIMAX SUB	22110	30-Oct-03	30-Oct-03	11:30:00	12:20:00	50	112	OTHER
FORCED	FREEWAY PARK SUBSTATION	1101	30-Oct-03	30-Oct-03	12:13:00	13:35:00	82	10	JUMPER BROKEN OR BURNED
FORCED	LAMARQUE SUBSTATION	1204	30-Oct-03	31-Oct-03	23:30:00	3:50:00	260	30	FUSE LINK BROKEN
FORCED	OLD OCEAN SUBSTATION	1260	30-Oct-03	30-Oct-03	19:15:00	20:00:00	45	1	CUTOUT DOOR FELL OPEN
FORCED	SWEENEY SUBSTATION	1128	30-Oct-03	30-Oct-03	12:15:00	13:15:00	60	6	VINES
FORCED	SWEENEY SUBSTATION	1128	30-Oct-03	30-Oct-03	15:45:00	16:25:00	40	1	SQUIRREL
FORCED	ANGLETON SUBSTATION	1154	31-Oct-03	31-Oct-03	9:02:00	9:44:00	42	1	FUSE LINK BROKEN
FORCED	ANGLETON SUBSTATION	1155	31-Oct-03	31-Oct-03	12:40:00	13:40:00	60	1	SQUIRREL
SCHEDULED	TEJAS SUBSTATION	1212	7-Oct-03	7-Oct-03	9:15:00	9:55:00	40	2	PLANNED
SCHEDULED	FREEWAY PARK SUBSTATION	1298	13-Oct-03	13-Oct-03	14:00:00	15:00:00	60	18	PLANNED
SCHEDULED	ANGLETON SUBSTATION	1242	26-Oct-03	26-Oct-03	7:00:00	9:22:00	142	1	PLANNED
SCHEDULED	ANGLETON SUBSTATION	1240	29-Oct-03	29-Oct-03	14:02:00	14:35:00	33	1	PLANNED
SCHEDULED	JONES STREET SUB	1412	31-Oct-03	31-Oct-03	3:39:00	4:42:00	63	1	PLANNED

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Question 2

2. (1) Provide the number of significant interruptions sustained during 2003 and (2) the number lasting more than 24 hours.[Subst. R. 25.52(c)(5) and 25.52(e)(2)]

Part 1

On August 9, 2003, there was a severe thunderstorm including serious lightning activity. Lightning hit the Friendswood substation which causes the West Bay to trip and lock out. This affected 4,606 customers which is 11% of the Bay Area Business Unit total, and two customers on FM 518 were out for over 24 hours due to the severe weather. Based on this, this event is classified as a major event.

In addition, meetings were held to discuss and review this situation in order to learn and improve TNMP's reliability company wide.

Part 2

Business Unit	Outages over 24 hours	Comments	Outage Reason
Bay Area	2	Outages occurred during the August 9 event described in Part 1. Exact outage times are unknown. Initial outage reports were misplaced.	Lightning
Lewisville	1	Outage was 1880 minutes; Planned Outage. See Outage Reason.	De-energized 3 phase Padmount to complete repairs on CT Metering; 300 Hwy 3040
Mainland	9	Outages ranged from 1440 to 2040 minutes; all were on August 9 due to the severe thunderstorm described in Part 1.	Lightning

3. Provide the number of forced interruptions attributable to each cause shown on the 2003 Service Quality Report.

Number of Outages (Forced Interruptions)

Business Unit	Weather	Vegetation	Animals and Birds	People (including cars and farm equip)	Utility-owned Equipment	Other	Unknown	Totals
Bay Area	252	114	283	38	262	40	63	1052
Brazos	326	95	156	41	218	22	13	871
Central TX	292	40	80	24	65	9	26	536
Lewisville	84	16	65	14	73	23	4	279
Mainland	275	211	174	28	429	24	21	1162
North TX	146	20	59	27	68	11	14	345
West TX	152	1	26	20	56	7	13	275
TX TNMP Totals	1527	497	843	192	1171	136	154	4520
TX TNMP Percentages	33.78%	11.00%	18.65%	4.25%	25.91%	3.01%	3.41%	

4. Describe the methodology used to calculate the annual SAIFI value for each interruption class shown on the 2003 Service Quality Report. Include a description of the data used for the calculations.

The methodology is as follows:

1. All interruptions for the entire year are compiled in the TNMP Oracle database by class.
2. From the data in the Oracle database, customer interruptions are totaled by circuit, then by business area (TNMP uses the term business unit), then by the state.
3. Using the standard calculation method for SAIFI which is:
$$\text{SAIFI} = \frac{\text{Total Number of Customer Interruptions}}{\text{Total Number of Customers Served}}$$
 SAIFI is calculated for each class using the annual data from the Oracle database.

5. Describe the methodology used to calculate the annual SAIDI value for each interruption class shown on the 2003 Service Quality Report. Include a description of the data used for the calculations.

The methodology is as follows:

1. All interruptions for the entire year are compiled in the TNMP Oracle database by class.
2. Using the data from the Oracle database, the customer minutes of outage are calculated, which is:
Customer Minutes of Outage = Outage Duration (in minutes) x Customers Interrupted
for each and all interruptions for the year.
From the results from above, customer minutes of outage are totaled by circuit, then by business area (TNMP uses the term business unit), then by the state.
3. Using the standard calculation method for SAIDI which is: $SAIDI = \frac{\text{Total Number of Customer Minutes of Outage}}{\text{Total Number of Customers Served}}$
- 4.

SAIDI is calculated for each class using the annual data from the Oracle database.

6. Describe the methodology used to calculate the system-wide SAIFI standard for 2003, and include a description of the data used for the calculation. Provide the standard for 2003 and provide the calculation showing how this standard was determined.

Methodology:

1. Total all the forced interruptions for 1998, 1999, and 2000 for each Business Unit since it is past the interim standard period ending Dec. 21, 2000 [Subst. R. 25(f)(1)].
2. Take the Business Unit totals and add them up to get a total for Texas Operations for each year.
3. Total all the customers for each Business Unit by year then add those to get a 36 month total.
4. Then calculate the 36 month system SAIFI which equals
Total Interruptions for TX for the 36 month interval (1998, 1999, and 2000) - No. 2
Total TX Customers served in the 36 month interval (1998, 1999, and 2000) - No. 3

Business Unit	1998			1999			2000			
	Customer Interruptions	Number of Customers	Customer Interruptions	Number of Customers	Customer Interruptions	Number of Customers	Customer Interruptions	Number of Customers	3 Year SAIFI BU Average	105% BU
Bay Area	21,205	33,057	15,747	33,057	14,502	38,422	0.4922	0.5168		
Brazos	25,028	23,117	18,539	23,117	17,716	22,692	0.8891	0.9336		
Central TX	25,694	23,080	10,618	23,115	12,096	23,115	0.6984	0.7333		
Lewisville	13,766	33,527	22,732	32,550	32,171	32,909	0.6937	0.7284		
Mainland	31,456	35,031	21,398	35,031	21,659	28,098	0.7591	0.7971		
North TX	25,332	23,131	17,557	23,131	30,755	24,041	1.0475	1.0999		
West TX	22,258	15,345	10,856	15,345	7,055	15,335	0.8728	0.9164		
TX Operations	164,739	186,288	117,447	185,346	135,954	184,612				

36 Month TX Operations Average	0.7517
Standard - No greater than 105% of 36 month avg.	0.7893

* - 5% deviation is due to the fact that it is a reporting year after 2001 [Subst. R. 25.52(f)(1)(B)]

7. Describe the methodology used to calculate the system-wide SAIDI standard for 2003, and include a description of the data used for the calculation. Provide the standard for 2003 and provide the calculation showing how this standard was determined.

Methodology:

1. Total all the Customer Minutes of Outage for 1998, 1999, and 2000 for each Business Unit since it is past the interim standard period ending Dec. 21, 2000 [Subst. R. 25(f)(1)].
2. Take the Business Unit totals and add them up to get a total for Texas Operations for each year.
3. Total all the customers for each Business Unit by year then add those to get a 36 month total.
4. Then calculate the 36 month system SAIFI which equals

Total Customer Minutes of Outage for TX for the 36 month interval (1998, 1999, and 2000) - **No. 2**

Total TX Customers served in the 36 month interval (1998, 1999, and 2000) - **No. 3**

Business Unit	1998			1999			2000		
	Customer Minutes of Outage	Number of Customers	Customer Minutes of Outage	Number of Customers	Customer Minutes of Outage	Number of Customers	Customer Minutes of Outage	Number of Customers	105% BU
Bay Area	1,676,120	33,057	1,024,876	33,057	1,045,157	38,422	35.84	37.63	
Brazos	2,017,042	23,117	1,075,936	23,117	941,917	22,692	58.54	61.47	
Central TX	1,361,022	23,080	586,725	23,115	873,637	23,115	40.71	42.74	
Lewisville	759,127	33,527	1,608,920	32,550	2,099,621	32,909	45.13	47.39	
Mainland	2,132,203	35,031	1,162,271	35,031	1,331,528	28,098	47.13	49.48	
North TX	1,713,673	23,131	867,208	23,131	2,444,108	24,041	71.48	75.05	
West TX	2,334,715	15,345	1,343,536	15,345	631,768	15,335	93.65	98.33	
TX Operations	11,993,902	186,288	7,669,472	185,346	9,367,736	184,612			

36 Month TX Operations Average	52.19
Standard - No greater than 105% of the 36 month avg.	54.80

*- 5% deviation is due to the fact that it is a reporting year after 2001 [Subst. R. 25.52(f)(1)(B)]

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Question 8

8. Identify and list the feeders on the 2003 Service Quality report that did not meet either the SAIDI or SAIFI requirements of Subst. R. 25.52(f)(2)(A). Explain why each feeder did not meet the requirements and what action(s) have been or will be taken to achieve compliance for the feeders (i.e. to the feeder repeating for a third year).

SAIFI

<u>2003 Rank</u>	<u>2002 Rank</u>	<u>Substation</u>	<u>Circuit</u>	<u>Customer Count</u>	<u>Value</u>	<u>Top Outage Causes</u>	<u>Total Dollars Spent / Proposed</u>	<u>Corrective Actions</u>
4	18	California	12K86	37	3.0270	Lightning-33% Phase off Insulator-33%	\$161,900	Patrolled the entire line; Placed damaged/rotted crossarms; Replaced poles; Installed lightning arresters and fault indicators; Proposed project to reroute part of this line for easier accessibility.
5	6	Pyote	25P217	48	2.8956	Arrester Failure-46% Switch Failure-46%	\$48,400	Replaced deteriorated line equipment(regulator and recloser) in 2002; Replaced damaged substation switch; Replaced poles and crossarms; Completed a entire line patrol; Install fault indicators.
12	7	Sweeny	1128	914	2.1677	Vehicle Hit Conductor-47% Lightning-21%	\$132,800	Replaced several poles and crossarms as identified from a recent line patrol; Install additional fuses and single phase reclosers; Replaced 6,300 feet of wire in order to provide for a better circuit tie.
15	3	Lakepointe	2508	278	2.1152	High Wind-47% Contractor-47%	\$86,500	Replaced substation relaying; Performed tree trimming; Replaced insulators with a higher BIL rating; Relocated a pole to help reduce vehicle accidents.
22	5	Graham	1245	164	2.0000	Lightning-50%	\$41,000	Replaced a defective breaker in the substation; Performed tree trimming.

SAIDI

<u>2003 Rank</u>	<u>2002 Rank</u>	<u>Substation</u>	<u>Circuit</u>	<u>Customer Count</u>	<u>Value</u>	<u>Top Outage Causes</u>	<u>Total Dollars Spent / Proposed</u>	<u>Corrective Action</u>
2	3	Gomez	25F05	18	542.0	High Wind-92%	\$188,500	Replaced several poles and crossarms, insulators, and miscellaneous line equipment; Install a snake fence around substation equipment; Proposed project to replace 5.3 miles of #2 ACSR to replace deteriorated wire.
7	26	Graham	1245	164	240.0	Lightning-50%	\$41,000	See SAIFI Above.
15	19	Gomez	25F61	18	181.9	Bird-55% Improper Coordination-23%	\$62,000	Replaced several poles and crossarms; Reviewed Coordination; Proposed project to install a three phase recloser and additional fuses.
29	6	Lakepointe	2508	278	113.7	High Wind-78% Contractor-10%	\$86,500	See SAIFI Above.

9. Identify and list the feeders on the 2003 Service Quality report that did not meet either the SAIDI or SAIFI requirements of Subst. R. 25.52(f)(2)(B). (1.) Explain why each feeder did not meet the requirements and what action(s) have been or will be taken to achieve compliance for the feeders. (2.) Describe the methodology used to calculate the SAIDI and SAIFI system averages of all feeders for purposes of identifying the listed feeders, and provide the calculations.

Part 1

SAIFI

<u>2003 Rank</u>	<u>2002 Rank</u>	<u>Substation</u>	<u>Circuit</u>	<u>Customer Count</u>	<u>Value</u>	<u>Top Outage Causes</u>	<u>Total Dollars Spent / Proposed</u>	<u>Corrective Actions</u>
5	6	Pyote	25P217	48	2.8956	Arrester Failure-46% Switch Failure-46%	\$48,400	Replaced deteriorated line equipment(regulator and recloser) in 2002; Replaced damaged substation switch; Replaced poles and crossarms; Completed a entire line patrol; Install fault indicators.

SAIDI

<u>2003 Rank</u>	<u>2002 Rank</u>	<u>Substation</u>	<u>Circuit</u>	<u>Customer Count</u>	<u>Value</u>	<u>Top Outage Causes</u>	<u>Total Dollars Spent / Proposed</u>	<u>Corrective Action</u>
1	30	Thurber	1447	606	594.3	Transformer Failure-90% Vehicle Hit a Pole-5%	\$124,300	Replaced a capacitor bank; Trimmed trees; Replaced several poles and crossarms; Performed an entire circuit line patrol; Replaced substation transformer.
2	3	Gomez	25F05	18	542.0	High Wind-92%	\$188,500	Replaced several poles and crossarms, insulators, and miscellaneous line equipment; Install a snake fence around substation equipment; Proposed project to replace 5.3 miles of #2 ACSR to replace deteriorated wire.
15	19	Gomez	25F61	18	181.9	Bird-55% Improper Coordination-23%	\$62,000	Replaced several poles and crossarms; Reviewed Coordination; Proposed project to install a three phase recloser and additional fuses.
36	4	Cochise	25P47	23	100.2	Lightning-100%	\$48,500	Replaced several arresters, poles, and crossarms; Installed fault indicators; Propose to install two new reclosers(one on the line and one in the substation).

Part 2

These circuits are grouped by Business Unit(BU) because of the method(which is described below) required by the TNMP merger agreement (Docket No. 21112). The method used to compare circuit based on the 300% standard is as follows:

1. Calculate the BU SAIDI (or SAIFI) average using the annual outage minutes (or interruptions) for the entire year.
2. The agreement language states that a feeder within a BU shall not sustain a value more than 300% greater than the system average in that BU. Therefore, the standard would equal the BU average + 300% of the BU average (or 3 x BU average).
3. The value in **No.2** would then be compared with each feeder on an annual basis in order to determine compliance.