

The Light company

Houston Lighting & Power

P.O. Box 1700 Houston, Texas 77001 (713) 228-9211

December 18, 1990

ST-HL-AE-3620

File No.: 507.03

10CFR50.73

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

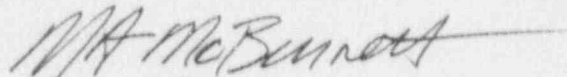
South Texas Project Electric Generating Station
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Intrusion Detection System

By this letter, Houston Lighting & Power Company (HL&P) is providing a description of an error found in the construction of the E-Field system used as part of the Protected Area Boundary at the South Texas Project Electric Generating Station (STPEGS). The system had not been constructed in accordance with vendor specifications. The NRC staff was apprised of this condition in a telephone conversation on September 13, 1990.

In an attempt to reduce the False and Nuisance Alarm Rate (FAR/NAR), one of the E-Field sections was reconfigured to an arrangement similar to that used at another utility. Comparing the existing E-Field arrangement against the reconfigured section led to the discovery that the existing arrangement had been installed in accordance with fence-mounted E-Field specifications rather than free-standing E-Field specifications. Both sets of specifications had been submitted to HL&P together, and the fence-mounted E-Field set was used in error.

The reconfigured E-Field zone has been modified to be in accordance with the correct free-standing E-Field specifications. Performance of the reconfigured portion of the system is being assessed for comparison against the originally installed arrangement to determine if E-Field performance can be further improved by reconfiguring the remaining zones in this fashion.

In addition, attached are tabulations and a graph of FAR/NAR data for the E-Field and Microwave zones of the STPEGS Protected Area Boundary. The data covers the time since the previous such submittal through the week ending October 28, 1990.



M. A. McBurnett
Manager,
Nuclear Licensing

PLW/sgs

Attachment: FAR/NAR Data

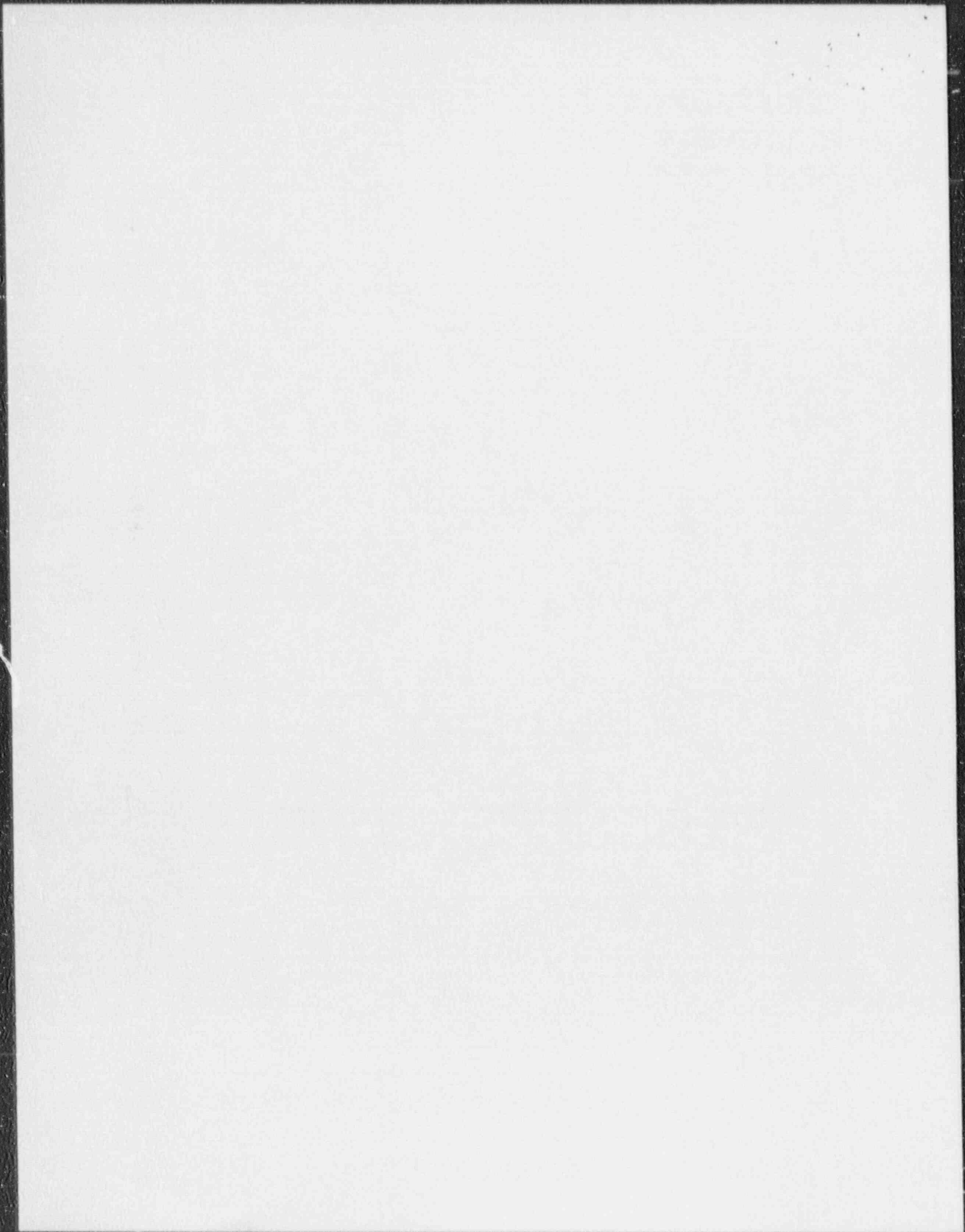
A Subsidiary of Houston Industries Incorporated

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Houston Lighting & Power Company
South Texas Project Electric Generating Station

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File No.: S07.03
Page 2

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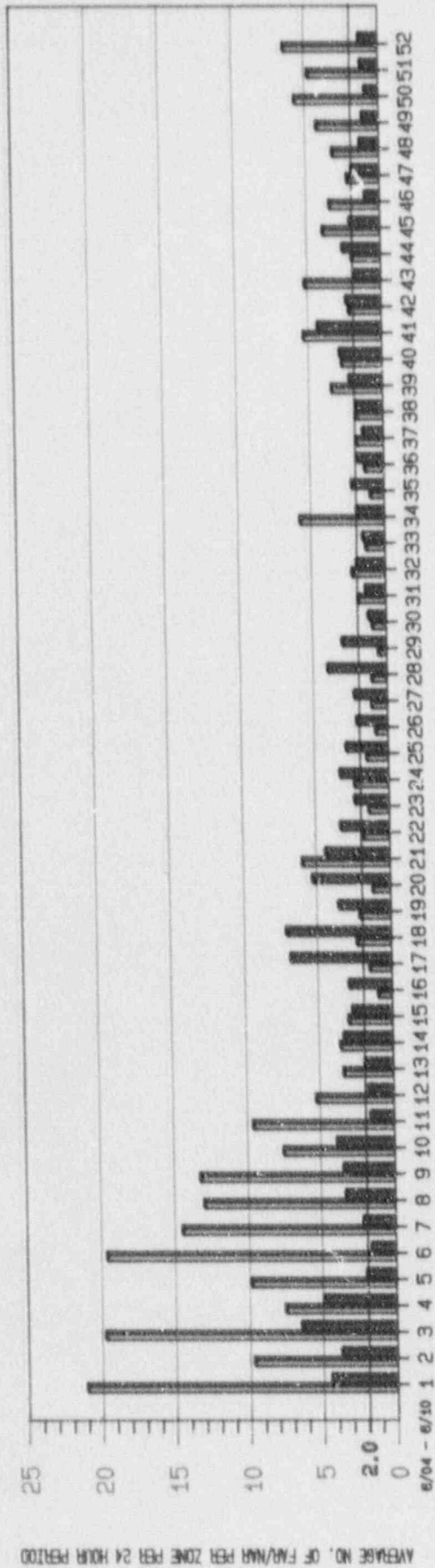
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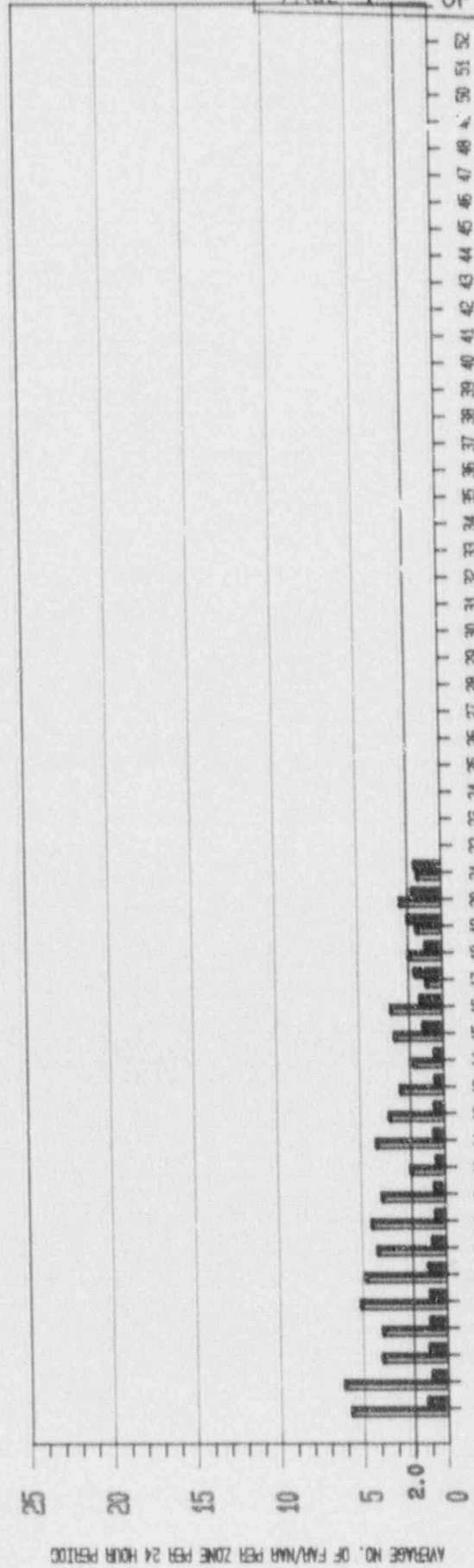
Revised 10/08/90

L4/NRC/

FAR/NAR WEEKLY ANALYSIS
E-FIELD - MICROWAVE



WEEKS - 1989



WEEKS - 1990

□ E-FIELDS ■ MICROWAVES

* WEEKS 89	
1	6/5 - 6/11
2	6/12 - 6/18
3	6/19 - 6/25
4	6/28 - 7/2
5	7/3 - 7/9
6	7/10 - 7/16
7	7/17 - 7/23
8	7/24 - 7/30
9	7/31 - 8/6
10	8/7 - 8/13
11	8/14 - 8/20
12	8/21 - 8/27
13	8/28 - 9/3
14	9/4 - 9/10
15	9/11 - 9/17
16	9/18 - 9/24
17	9/25 - 10/1
18	10/2 - 10/8
19	10/9 - 10/15
20	10/16 - 10/22
21	10/23 - 10/29
22	10/30 - 11/5
23	11/6 - 11/12
24	11/13 - 11/19
25	11/20 - 11/26
26	11/27 - 12/3
27	12/4 - 12/10
28	12/11 - 12/17
29	12/18 - 12/24
30	12/25 - 12/31
31	1/1 - 1/7
32	1/8 - 1/14
33	1/15 - 1/21
34	1/22 - 1/28
35	1/29 - 2/4
36	2/5 - 2/11
37	2/12 - 2/18
38	2/19 - 2/25
39	2/26 - 3/4
40	3/5 - 3/11
41	3/12 - 3/18
42	3/19 - 3/25
43	3/26 - 4/01
44	4/02 - 4/08
45	4/09 - 4/15
46	4/16 - 4/22
47	4/23 - 4/29
48	4/30 - 5/06
49	5/07 - 5/13
50	5/14 - 5/20
51	5/21 - 5/27
52	5/28 - 6/03

WEEKS 90	
1	6/4 - 6/10
2	6/11 - 6/17
3	6/18 - 6/24
4	6/25 - 7/1
5	7/2 - 7/8
6	7/9 - 7/15
7	7/16 - 7/22
8	7/23 - 7/29
9	7/30 - 8/05
10	8/06 - 8/12
11	8/13 - 8/19
12	8/20 - 8/26
13	8/27 - 9/02
14	9/03 - 9/09
15	9/10 - 9/16
16	9/17 - 9/23
17	9/24 - 9/30
18	10/1 - 10/7
19	10/8 - 10/14
20	10/15 - 10/21
21	10/22 - 10/28

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 FILE NO. 3620
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WEEKLY AVERAGE

DAY/DATE: Monday August 6, 1990 WEEK: July 30, 1990 TO August 05, 1990

MONS 8.6.5.44
CATERVA.

Friends & Always Be
Done Per 24 hour period.

AVERAGE

E-FIELD
3.75

MICROWAVE
0.62

E-FIELD/MICROWAVE
COMBINED
2.19

ATTACHMENT 1
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SESS REV.06/06/90
WVAV.DRW

UNIT I	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM	UNIT II	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM
E01	0	3	1	2	0		6.12	3	M01	0	1	0	1	0		6.12	1
E02	1	18	18	0	0		5.99	19	M02	0	2	1	1	0		6.12	2
E03	0	0	0	0	0		6.12	0	M03	0	1	0	1	0		6.12	1
E05	0	10	6	4	0		6.12	10	M05	0	0	0	0	0		6.12	0
E06	0	17	16	0	1		5.99	17	M12	1	4	4	0	0		5.74	5
E08	0	10	9	1	0		6.12	10	M47	0	0	0	0	0	109987	4.0	0
E09	7	25	54	12	9		5.23	82	M25	0	2	1	1	0		6.12	2
E11	4	28	13	15	0	109403	5.74	32	M26	1	8	5	3	0		6.12	9
E12	0	5	4	1	0		6.12	5	M27	1	10	1	9	0		6.12	11
E13	1	7	7	0	0		6.12	8	M28	0	2	0	2	0		6.12	2
E14	0	6	5	1	0		6.12	6	M30	0	0	0	0	0		6.12	0
E15	1	26	12	14	0		5.99	27	M31	0	4	4	0	0		6.12	4
E20	0	15	4	11	0		6.12	15	M32	0	0	0	0	0		6.12	0
E21	0	30	8	22	0		5.99	30	M33	0	0	0	0	0		6.12	0
E22	1	15	14	1	0		5.99	16	M34	1	5	4	1	0		6.12	6
E23	0	10	4	6	0		6.12	10	M35	2	14	5	9	0		6.12	16
E44	6	44	34	10	0	109473	5.74	50	M37	0	0	0	0	0		6.12	0
E46	2	28	15	11	2		5.37	30	M38	0	0	0	0	0	100316	0-0	0
E48	5	34	17	16	1	109394	5.25	39	M39	0	1	0	1	0		6.12	1
E50	3	29	15	14	0	109441	5.25	32	M40	10	3	0	3	0		5.74	13
TOTAL	31	410	256	141	13		117.61	441	M41	0	1	1	0	0		6.12	1
									M42	0	0	0	0	0	109486	4.25	0
									M43	0	6	4	2	0		6.12	6
									TOTAL	16	64	30	34	0		127.89	80
									W-35	0	0	0	0	0		6.12	0

WEEKLY AVERAGE

DAY/DATE Monday August 13, 1990

FAR/NAR ANALYSIS

WEEK August 06, 1990

to August 12, 1990

UNIT I	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM	UNIT II	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM
E01	1	13	2	10	1		6.87	14	M01	0	0	0	0	0		7.0	0
E02	3	38	26	10	2		6.24	41	M02	1	1	0	1	0		7.0	2
E03	0	16	5	11	0		6.75	16	M03	6	3	0	3	0		7.0	3
E05	0	7	5	2	0		7.0	7	M09	0	1	0	1	0		7.0	1
E06	0	11	5	6	0		6.87	11	M12	0	0	0	0	0		7.0	0
E08	0	3	3	0	0		7.0	3	M47	0	1	0	1	0		7.0	1
E09	3	33	23	10	0		6.74	36	M25	0	0	0	0	0		7.0	0
E11	3	28	22	6	0		6.62	31	M26	3	15	8	7	0	109918	6.74	18
E12	0	0	0	0	0		7.0	0	M27	2	4	4	7	0		7.0	13
E13	0	1	0	1	0		7.0	1	M28	1	2	1	1	0		7.0	3
E14	0	7	2	5	0		7.0	7	M30	0	0	0	0	0		6.87	0
E15	1	5	2	3	0		7.0	6	M31	0	0	0	0	0		6.87	0
E20	1	16	1	15	0		6.87	17	M32	0	0	0	0	0		6.87	0
E21	2	26	0	26	0		6.87	28	M33	0	0	0	0	0		6.87	0
E22	0	7	1	6	0		7.0	7	M34	0	1	0	1	0		6.87	1
E23	0	5	0	5	0		7.0	5	M35	3	19	9	10	0		6.74	22
E44	0	6	2	4	0		7.0	6	M37	0	0	0	0	0		6.37	0
E46	1	12	2	9	1		6.87	13	M38	0	0	0	0	0	M316	-0	0
E48	0	9	1	8	0		6.87	9	M39	0	0	0	0	0		6.37	0
E50	3	17	5	12	0		6.62	20	M40	0	1	1	0	0		6.74	1
TOTAL	18	260	107	149	4		137.19	278	M41	0	6	0	0	0		6.74	0
									M42	0	0	0	0	0		6.74	0
									M43	1	4	2	2	0		6.74	5
									TOTAL	11	59	25	34	0		150.53	70
									W-35	1	0	0	0	0	109456	6.61	1

METS 2.6.5.44
 Contains
 Exceeds 5 Alarms Per
 Zone Per 24 hour period.

AVERAGE

E-FIELD 2.03
 MICROWAVE 0.47
 E-FIELD/MICROWAVE COMBINED 1.25

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WEEKLY AVERAGE

DAY/DATE Monday August 20, 1990

August 20, 1990

FAR/NAR ANALYSIS

WEEK August 13, 1990

August 19, 1990

UNIT 1	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM	UNIT II	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM
E01	1	10	1	9	0		7.0	11	M01	1	5	0	5	0		7.0	6
E02	2	26	24	1	1		6.59	28	M02	0	4	2	2	0		7.0	4
E03	0	0	0	0	0		7.0	0	M03	0	3	0	3	0		7.0	3
E05	0	3	3	0	0		7.0	3	M09	0	0	0	0	0		7.0	0
E06	1	8	7	1	0		6.87	9	M12	0	0	0	0	0		7.0	0
E08	1	7	7	0	0		6.87	8	M47	0	1	1	0	0		7.0	1
E09	7	42	38	4	0		6.11	49	M25	0	2	1	1	0		7.0	2
E11	4	25	20	5	0	10930	6.11	29	M26	3	15	3	12	0		7.0	18
E12	1	0	0	0	0		7.0	1	M27	2	11	6	5	0		7.0	13
E13	0	7	2	4	1		6.87	7	M28	0	5	3	2	0		7.0	5
E14	2	41	14	27	0		6.75	43	M30	0	0	0	0	0		7.0	0
E15	2	79	70	58	1		5.35	81	M31	0	3	3	0	0		7.0	3
E20	0	59	1	58	0		6.36	59	M32	0	0	0	0	0		7.0	0
E21	0	27	3	24	0		7.0	27	M33	0	0	0	0	0		7.0	0
E22	0	7	1	6	0		7.0	7	M34	0	0	0	0	0		7.0	0
E23	0	6	2	4	0		7.0	6	M35	10	12	9	2	1		7.0	22
E44	3	58	43	14	1		6.61	61	M37	0	0	0	0	0		7.0	0
E46	4	47	32	15	0	10930	6.74	51	M38	0	0	0	0	0	10930	-0-	0
E48	1	51	26	25	0		6.74	52	M39	0	0	0	0	0		7.0	0
E50	1	9	2	7	0		7.0	10	M40	0	14	11	2	1		7.0	14
TOTAL	30	512	246	262	4		13.87	542	M41	0	1	0	1	0		7.0	1
									M42	0	0	0	0	0		7.0	0
									M43	0	0	0	0	0		7.0	0
									TOTAL	16	76	39	35	2		154.0	92
									W-35	0	0	0	0	0		7.0	0

METS 2.6.5-VN
Caiterin
Exceeds 5 Hours per
zone per 24 hour period.

AVERAGE

E-FIELD
4.05

MICROWAVE
0.59

E-FIELD/MICROWAVE
COMBINED
2.32

ATTACHMENT
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WEEKLY AVERAGE

DAY/DATE: Monday August 27, 1990 WEEK: August 29, 1990 TO: August 26, 1990

FAR/NAR ANALYSIS

UNIT I	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. # AVAILABLE	TOTAL ALARM	UNIT II	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM
E01	1	2	0	2	0	6.49	3	M01	0	1	0	0	1	6.49	1	
E02	0	13	7	6	0	6.49	13	M02	0	1	0	1	0	6.49	1	
E03	0	0	0	0	0	6.49	0	M03	0	1	0	1	0	6.49	1	
E05	0	1	1	0	0	6.37	1	M09	0	0	0	0	0	6.49	0	
E06	0	13	9	4	0	6.36	13	M12	1	0	0	0	0	6.37	1	
E08	1	6	5	1	0	5.99	7	M17	1	9	9	0	0	6.49	10	
E09	3	94	84	8	2	5.48	97	M25	0	0	0	0	0	6.49	0	
E11	0	5	4	0	1	6.49	5	M26	3	14	8	6	0	6.36	17	
E12	0	3	3	0	0	6.49	3	M27	5	8	0	8	0	6.36	13	
E13	0	18	11	7	0	5.99	18	M28	1	2	0	2	0	6.49	3	
E14	0	21	10	8	3	6.11	21	M30	0	0	0	0	0	6.49	0	
E15	2	61	36	23	2	6.12	63	M31	1	5	3	2	0	6.49	6	
E20	0	9	5	4	0	5.98	9	M32	0	0	0	0	0	6.49	0	
E21	0	2	0	2	0	6.11	2	M33	1	0	0	0	0	6.36	1	
E22	0	3	2	1	0	5.98	3	M34	0	2	0	2	0	6.49	2	
E23	0	3	1	2	0	5.98	3	M35	3	10	7	3	0	6.49	13	
E44	7	41	35	5	1	6.12	48	M37	0	1	0	0	1	6.49	1	
E46	7	39	31	0	0	5.99	46	M38	0	0	0	0	0	-0-	0	
E48	2	31	28	2	1	6.37	33	M39	0	0	0	0	0	6.49	0	
E50	1	14	11	3	0	6.49	15	M40	0	2	1	1	0	6.49	2	
TOTAL	24	379	283	86	10	123.89	403	M41	0	0	0	0	0	6.49	0	
								M42	0	0	0	0	0	6.49	0	
								M43	0	5	1	2	2	6.49	5	
								TOTAL	16	61	29	28	4	142.27	77	
								W-36	0	0	0	0	0	6.49	0	

METS 0.6-5.44
Criteria

Exceeds 5 Alarms Per
Zone Per 24-hour Period.
AVERAGE

E-FIELD
3.25

MICROWAVE
0.54

E-FIELD/MICROWAVE
COMBINED
1.89

ATTACHMENT
STATION-AE-3620
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WEEKLY AVERAGE

DAY/DATE: WEDNESDAY September 05, 1990

FAR/NAR ANALYSIS

WEEK: August 27, 1990

TO: September 02, 1990

UNIT I	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM	UNIT II	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM
E01	1	5	1	4	0		5.74	6	M01	6	1	0	1	0		5.74	7
E02	0	19	15	3	1		5.61	19	M02	0	1	0	1	0		5.74	1
E03	0	5	2	3	0		5.62	5	M03	1	3	0	3	0		5.74	4
E05	0	2	2	0	0		5.62	2	M09	0	2	2	0	0		5.74	2
E06	3	14	7	7	0	100409	5.49	17	M12	0	0	0	0	0	100412	5.74	0
E08	0	21	18	3	0		5.74	21	M47	0	2	2	0	0		5.74	2
E09	2	38	23	15	0		4.87	40	M25	0	0	0	0	0		5.74	0
E11	0	5	2	1	2		5.74	5	M25	0	2	0	2	0		5.74	2
E12	2	4	4	0	0	100404	5.61	6	M27	0	6	0	6	0		5.74	6
E13	1	7	2	5	0		5.62	8	M28	0	6	5	1	0		5.74	6
E14	1	9	3	6	0		5.74	10	M30	0	0	0	0	0		5.74	0
E15	0	27	20	7	0		5.49	27	M31	1	12	11	1	0	100441	4.37	13
E20	0	6	5	1	0		5.74	6	M32	0	0	0	0	0		5.74	0
E21	0	1	1	0	0		5.74	1	M33	0	0	0	0	0	100485	5.12	0
E22	1	6	4	2	0		5.74	7	M34	0	0	0	0	0		5.74	0
E23	0	3	2	1	0		5.74	3	M35	1	9	3	5	1		5.74	10
E44	2	33	29	4	0		5.1	35	M37	0	1	0	1	0		5.62	1
E46	0	20	17	3	0		5.3	20	M38	0	0	0	0	0	100316	0	0
E48	0	17	13	3	1		5.31	17	M39	0	1	0	1	0		5.74	1
E50	3	28	20	6	2	100488	4.98	31	M40	0	2	0	2	0		5.74	2
TOTAL	16	270	190	74	6		10.69	286	M41	0	1	0	1	0		5.74	1
									M42	0	0	0	0	0		5.74	0
									M43	0	2	1	1	0		5.74	2
									TOTAL	9	51	24	26	1		124.17	60
									W-35	0	0	0	0	0		5.62	0

MMS R.G. 5.44
Cathryn.

Exceeds 5 Alarms Per
Zone for 24 hour period.

AVERAGE

E-FIELD
2.58

MICROWAVE
0.48

E-FIELD/MICROWAVE
COMBINED
1.53

ATTACHMENT 1
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WEEKLY AVERAGE

DAY/DATE Monday Sept. 19, 1990

FAR/NAR ANALYSIS

WEEK Sept. 1990 TO September 09, 1990

UNIT I	UNIT II	TOTAL FAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM	TOTAL FAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM
E01	M01	0	0	0	0		6.12	0	0	0	0	0		6.12	0
E02	M02	7	6	0	1		6.12	8	2	2	0	0		6.12	2
E03	M03	1	0	0	0		6.12	1	6	2	4	0		6.12	6
E04	M09	0	1	0	0		6.12	1	0	0	0	0		6.12	1
E05	M12	1	12	0	0		6.12	13	0	1	0	0		6.12	1
E06	M47	1	1	0	0		6.12	2	2	0	0	0		6.12	2
E07	M25	1	60	10	1		5.48	61	0	4	3	0		6.12	4
E08	M26	0	7	0	1		6.12	7	2	1	3	0		6.12	6
E09	M27	0	2	1	0		6.12	2	2	1	1	0		6.12	4
E10	M28	0	4	0	0		5.87	4	0	2	0	0		6.12	2
E11	M30	0	1	0	0		6.12	1	0	0	0	0		6.12	0
E12	M31	1	12	1	0		6.12	13	0	0	0	0		6.12	0
E13	M32	0	5	1	0		6.12	5	0	0	0	0		6.12	0
E14	M33	0	1	1	0		6.12	1	0	0	0	0		6.12	0
E15	M34	2	5	0	2	100%	6.12	7	1	4	2	0		6.12	7
E16	M35	0	2	0	0		6.12	2	5	14	3	0		6.12	22
E17	M37	3	19	1	0		5.86	22	0	1	0	0		6.12	1
E18	M38	2	28	3	0	100%	5.86	30	0	0	0	0	100%	0	0
E19	M39	2	18	0	0		5.49	20	0	2	1	0		6.12	2
E20	M40	0	12	4	0		6.12	12	1	1	1	0		6.12	3
E21	M41								0	0	1	0		6.12	1
E22	M42	15	147	22	5		120.86	212	0	0	0	0		6.12	0
E23	M43								0	1	0	0		6.12	1
TOTAL									14	51	32	19		138.64	65
	W-36								0	1	0	0		6.12	1

Meets R.G. 5 W
Caitan.

Exceeds 15 times the
Zone for 24 hours period.

AVERAGE

E-FIELD
1.75

MICROWAVE
0.48

E-FIELD/MICROWAVE
COMBINED
1.12

PROJECT 1
SITE - AE-3680
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WEEKLY AVERAGE

DAY/DATE Monday

September 17, 1990

FAR/NAR ANALYSIS

WEEK September 10, 1990

TO September 16, 1990

UNIT #	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM	UNIT #	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM
E01	0	5	1	4	0	5.86	5	M01	1	1	0	0	1		5.86	2
E02	0	15	4	11	0	5.86	15	M02	1	2	0	2	0		5.86	3
E03	0	0	0	0	0	5.86	0	M03	0	3	0	3	0		5.86	3
E04	0	11	11	0	0	5.86	11	M04	0	0	0	0	0		5.86	0
E05	0	9	6	3	0	5.86	9	M12	0	8	6	2	0		5.86	8
E06	0	1	1	0	0	5.86	1	M47	0	1	0	1	0		5.86	1
E07	0	26	20	6	0	5.86	26	M25	0	5	1	4	0		5.86	5
E08	0	13	12	1	0	5.86	13	M26	0	2	2	0	0		5.86	2
E09	0	3	3	0	0	5.86	3	M27	2	6	3	3	0		5.86	8
E10	2	12	11	1	0	5.12	14	M28	0	4	1	3	0		5.86	4
E11	0	8	7	1	0	5.86	8	M30	0	5	1	4	0		5.86	5
E12	4	30	21	8	1	5.61	34	M31	0	6	4	2	0		5.86	6
E13	1	8	7	1	0	5.86	9	M32	0	1	0	1	0		5.86	1
E14	0	0	0	0	0	5.86	0	M33	0	1	1	0	0		5.86	1
E15	2	36	21	15	0	5.86	38	M34	0	9	3	6	0		5.86	9
E16	0	6	4	2	0	5.86	6	M35	3	34	25	9	0	10030	5.73	37
E17	2	28	24	4	0	5.73	30	M37	0	2	0	2	0		5.74	2
E18	1	38	30	8	0	5.73	39	M38	0	0	0	0	0	10026	2.25	0
E19	1	32	27	5	0	5.73	33	M39	0	1	0	1	0		5.49	1
E20	1	37	28	9	0	5.36	38	M40	1	5	0	5	0		5.74	6
TOTAL	14	318	238	79	1	115.32	332		0	30	5	25	0		5.84	30
									8	143	55	87	1		130.43	151
									4	2	1	1	0	10028	5.74	6

*Notes 1.6, 5.41
C.A.N.A.A.*

*Exceeds 5 Alarms Per
Zone Per 24 hour Period.*

AVERAGE

E-FIELD
2.88

MICROWAVE
1.16

E-FIELD/MICROWAVE
COMBINED
2.02

ATTACHMENT /
ST-HL-AE-5620
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WEEKLY AVERAGE

Monday Sept. 24, 1990

FAR/NAR ANALYSIS

WEEK Sept. 17, 1990

TU Sept. 23, 1990

UNIT I	NO. S.	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM	UNIT II	TOTAL FAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM
101	1	10	1	8	1		5.49	11	M01	3	2	5	0		5.49	10
102	0	11	10	1	0		5.49	11	M02	0	3	3	0		5.49	6
103	0	5	4	1	0		5.49	5	M03	8	2	2	0		5.49	12
104	0	5	4	1	0		5.49	5	M04	0	1	1	0		5.49	2
105	1	9	9	0	0		5.49	10	M05	0	6	1	0	10/25	4.99	7
106	0	6	4	2	0		5.49	6	M06	0	0	0	0		5.49	0
107	0	27	21	6	0		5.49	27	M07	0	2	4	0		5.49	6
108	1	27	24	3	0		5.36	28	M08	0	1	2	0		5.49	3
109	0	3	2	1	0		4.99	3	M09	0	5	5	0		5.49	10
110	0	4	4	0	0		5.36	4	M10	0	2	6	1		5.36	9
111	0	9	8	1	0		5.36	9	M11	0	0	0	0		5.49	0
112	3	21	15	6	0		5.36	24	M12	0	1	4	0		5.49	5
113	2	26	20	5	1		5.11	28	M13	0	0	5	0		5.49	5
114	0	3	2	1	0		5.49	3	M14	0	0	1	0		5.49	1
115	0	19	9	9	1		5.36	19	M15	0	4	2	0		5.49	6
116	0	19	16	3	0		5.49	19	M16	5	28	9	0		5.49	42
117	1	20	14	6	0		5.37	21	M17	0	2	0	0		5.49	2
118	3	20	13	6	1	10/20	5.37	23	M18	0	2	4	0		5.49	6
119	8	41	25	16	0	10/20	3.99	49	M19	0	2	1	0		5.49	3
120	1	20	10	10	0	10/20	5.24	21	M20	1	1	1	0		5.49	3
TOTAL	21	305	215	86	4		106.28	326	M21	1	4	8	0		5.49	13
									M22	0	6	3	0		5.49	9
									M23	0	4	0	0		5.49	4
									TOTAL	18	146	78	1		125.64	164
									W-35	0	0	0	0	10/20	2.25	0

Meds. E.G. 5.49
Calm.

Events 5 alarms for
Zone A. 2nd house burned.

AVERAGE

E-FIELD
3.07

MICROWAVE
1.31

E-FIELD/MICROWAVE
COMBINED
2.19

ATTACHMENT 1
ST-HL-AE-3620
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WEEKLY AVERAGE

DAY/DATE Monday

October 01, 1990

FAR/NAR ANALYSIS

WEEK September 24, 1990

Tuesday September 25, 1990

UNIT I	TOTAL FAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.P. #	AVAILABLE	TOTAL ALARM	UNIT II	TOTAL FAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.P. #	AVAILABLE	TOTAL ALARM
E01	4	12	4	2		6:30	16	M01	4	0	0	0		6:50	4
E02	1	14	8	0	100%	2:0	15	M02	0	1	1	0		6:50	1
E03	0	0	0	0		6:50	0	M03	2	5	3	0		6:25	7
E04	0	3	2	0		6:50	3	M04	0	0	0	0		6:50	0
E05	1	7	1	3		6:50	8	M12	2	6	0	0		6:37	2
E06	0	0	0	0		6:50	0	M17	0	1	1	0		6:50	1
E07	3	11	0	0		6:50	14	M25	0	33	33	0		6:50	33
E08	0	1	1	0		6:50	1	M26	0	6	5	0		6:50	6
E09	0	0	0	0		6:50	0	M27	0	7	7	0		6:50	7
E10	0	0	0	0		3:30	0	M28	0	5	5	0		6:50	5
E11	0	1	1	0		6:50	1	M30	0	3	2	0		6:50	3
E12	1	6	4	0		6:50	7	M31	0	2	2	0		6:50	2
E13	0	3	2	0		6:50	3	M32	0	12	12	0		6:50	12
E14	0	1	1	0		6:50	1	M33	0	0	0	0		6:50	0
E15	1	7	5	0		6:50	8	M34	0	7	6	0		6:50	7
E20	0	3	1	4		6:38	7	M35	5	23	14	2	100%	6:50	28
E21	0	1	1	0		6:37	9	M37	1	14	12	0		6:50	15
E22	1	7	2	4		5:02	12	M38	2	20	18	0		6:50	22
E23	0	9	3	0		6:37	9	M39	0	9	9	0		6:50	9
E44	0	12	9	0		6:50	1	M40	0	10	9	0		6:50	10
E45	0	12	3	0		11:0	115	M41	0	30	29	0		1:50	30
E48	4	5	3	1		6:37	9	M42	6	25	15	0	100%	6:25	31
E50	0	1	1	0		6:50	1	M43	2	5	5	0		6:50	7
TOTAL	15	100	41	14				TOTAL	24	218	188	2		148:07	242
								W-36	0	0	0	0		100%	0

METS 2.6-5.0N
Central A.

Exceeds = Alarms Per
2002 Per 24 Hour Period

AVERAGE

E-FIELD
0.97

MICROWAVE
1.63

E-FIELD/MICROWAVE
COMBINED
1.30

ATTACHMENT 1
ST-HL-AE-3620
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WEEKLY AVERAGE

Monday 10-08-90

FAR/NAR ANALYSIS

WEEK 10-01-90

TU 10-07-90

UNIT #	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM	UNIT #	TOTAL FAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM
101	3	2	1	0		6-12	4	M01	3	0	0	0		6-12	3
102	42	35	1	6	106062	5-37	44	M02	0	1	3	0		6-12	4
103	0	0	0	0		6-12	0	M03	0	0	0	0		6-12	0
104	4	4	0	0		6-12	4	M09	0	0	0	0		6-12	0
105	11	6	4	1		6-12	12	M12	0	11	0	0		5-87	11
106	4	3	1	0		6-12	5	M47	0	0	0	0		6-12	0
107	28	21	6	1		5-62	28	M25	2	1	4	0		6-12	7
108	9	9	0	0		6-12	11	M28	0	1	0	0		6-12	1
109	1	1	0	0		6-12	1	M27	0	3	5	0		6-12	8
110	0	0	0	0		0-0	0	M28	0	7	0	0		6-12	7
111	4	4	0	0		6-12	4	M30	0	1	1	0		6-12	1
112	18	15	3	0		5-50	18	M31	1	12	2	0		5-87	13
113	17	14	3	0	106078	6-12	19	M32	0	1	1	0		6-12	1
114	3	2	1	0		6-12	3	M33	0	0	0	0		6-12	0
115	8	6	2	0		6-12	8	M34	1	3	2	0		6-12	4
116	13	6	6	1		6-12	13	M35	4	28	16	1	106030	6-12	52
117	13	12	1	0		6-12	13	M37	1	1	1	0		6-12	2
118	9	7	2	0		6-12	9	M38	1	6	2	0	106076	5-01	7
119	20	12	7	1		6-12	20	M39	0	2	1	0		6-12	2
120	11	9	2	0		6-12	11	M40	0	4	3	0		6-12	4
TOTAL	218	168	40	10		114-41	227	M41	0	6	5	0		6-12	6
								M42	3	13	4	0		5-87	16
								M43	0	2	2	0		6-12	2
								TOTAL	16	115	59	1		138-90	131
								W-35	0	0	0	0	106072	3-0	0

Mats 2.6-5.04
Cateria.

Exceeds 5 Alarms Per Zone
As to lower Alarm.

AVERAGE

E-FIELD

1.98

MICROWAVE

0.94

E-FIELD/MICROWAVE
COMBINED

1.52

APPENDIX 1
SITE # AE-3620
PAGE 12 OF 15

WEEKLY AVERAGE

DAY/DATE Tuesday 10-16-90

FAR/NAR ANALYSIS

WEEK October 08, 1990

TO October 14, 1990

UNIT I	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM	UNIT II	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM
E01	0	3	1	2	0	106085	5.6Z	3	M01	3	0	0	0	0	106091	4.49	3
E02	7	13	12	0	1	116007	5.24	20	M02	0	1	0	1	0		5.6Z	1
E03	7	3	3	0	0	106097	1.88	10	M03	0	1	1	0	0		5.6Z	1
E05	0	4	2	2	0	116036	5.6Z	4	M09	2	5	4	0	1		5.6Z	7
E06	1	7	5	2	0		5.6Z	8	M12	0	13	12	1	0		6.00	13
E08	0	0	0	0	0		5.6Z	0	M47	2	2	1	1	0		5.6Z	4
E09	1	43	36	5	2		5.49	44	M25	0	22	1	21	0		6.00	22
E11	0	13	12	0	1		6.00	13	M26	1	7	4	3	0		5.75	8
E12	0	0	0	0	0		6.00	0	M27	1	9	0	9	0		6.00	10
E13	0	0	0	0	0		0	0	M28	0	4	1	3	0	106097	5.51	4
E14	0	1	0	1	0		6.00	1	M30	1	4	2	2	0	106095	6.00	5
E15	0	9	1	8	0		6.00	9	M31	0	13	9	4	0		5.75	13
E20	1	10	6	4	0		6.00	11	M32	0	3	0	3	0		6.00	3
E21	0	0	0	0	0		6.00	0	M33	0	0	0	0	0		6.00	0
E22	1	7	3	4	0		6.00	8	M34	0	17	7	10	0		6.00	17
E23	0	3	3	0	0		6.00	3	M35	9	62	36	26	0	106030	4.75	71
E44	0	4	2	2	0		6.00	4	M37	2	14	8	6	0	116001	5.6Z	16
E45	0	4	2	2	0		5.6Z	4	M38	0	6	0	6	0	116034	6.00	6
E48	0	15	10	5	0		5.6Z	15	M39	2	4	0	4	0		6.00	6
E56	0	3	3	0	0		5.6Z	3	M40	0	2	0	2	0		5.6Z	2
TOTAL	18	142	101	37	4		105.95	160	M41	0	28	3	25	0	106098	5.49	28
									M42	1	13	2	11	0		5.6Z	14
									M43	2	5	1	4	0		5.6Z	7
									TOTAL	26	235	92	142	1		130.70	261
									W-35	0	0	0	0	0		6.00	0

Meets 2-6-5-04
Cateria.

Exceeds 5 Alarms Per
Zone For 24 hour Period.

AVERAGE

E-FIELD
1.51

MICROWAVE
2.00

E-FIELD/MICROWAVE
COMBINED
1.76

AT: []
ST: [] 3620
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WEEKLY AVERAGE

DAY/DATE: SUNDAY 10-23-90

FAR/NAR ANALYSIS

WEEK: October 15, 1990

TO: October 21, 1990

UNIT I	TOTAL FAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM	UNIT II	TOTAL FAR	WEATHER	ANIMAL ALARM	TRASH ALARM	W.R. #	AVAILABLE	TOTAL ALARM
E01	0	7	3	4	0	6-36	7	M01	0	8	2	6	0	6-36	8
E02	0	9	7	2	0	11603 11602	9	M02	0	6	2	4	0	6-36	6
E03	6	38	25	13	0	11608	44	M03	1	15	10	5	0	5-98	16
E05	0	1	0	1	0		1	M09	0	0	0	0	0	6-36	0
E06	0	16	12	3	1		16	M12	0	5	3	2	0	6-36	5
E08	1	9	8	1	0		10	M47	0	7	3	4	0	6-23	7
E09	0	35	27	7	1		35	M25	0	11	0	11	0	6-36	11
E11	0	15	14	0	1		15	M26	0	5	0	5	0	6-36	5
E12	0	1	1	0	0		1	M27	0	7	2	5	0	6-36	7
E13	0	1	1	0	0		1	M28	0	10	2	8	0	6-36	10
E14	0	4	2	2	0		4	M30	1	2	0	2	0	6-36	3
E15	1	17	12	5	0	116011	18	M31	0	9	6	3	0	5-99	9
E20	0	16	11	5	0		16	M32	0	7	1	6	0	11605	7
E21	0	2	1	1	0		2	M33	0	0	0	0	0	6-36	0
E22	0	15	10	5	0		15	M34	0	18	6	12	0	6-36	18
E23	0	8	4	4	0		8	M35	7	70	30	36	4	6-23	77
E44	0	33	22	11	0		33	M37	0	7	2	5	0	6-36	7
E46	0	18	13	5	0		18	M38	0	6	0	6	0	116010	6
E48	0	23	17	6	0		23	M39	0	4	4	0	0	6-36	4
E50	0	13	8	5	0		13	M40	0	9	0	9	0	6-36	9
TOTAL	8	281	198	80	3	118.12	289	M41	0	14	0	14	0	5-25	14
								M42	1	6	0	5	1	5-25	7
								M43	0	1	0	1	0	5-25	1
								TOTAL	10	227	73	149	5	140.19	237
								W-36	0	0	0	0	0	11606	5.12

AVERAGE

E-FIELD
2.45

MICROWAVE
1.69

E-FIELD/MICROWAVE
COMBINED
2.07

Meets 16-5:00
California

Stands 5 Blanks Per
Zone Ar 24 hours period.

ATTACHMENT /
ST-HL-AE-3620
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WEEKLY AVERAGE FAR/NAR ANALYSIS

DAY/DATE Monday 10-29-90

WEEK October 22, 1990

October 28, 1990

UNIT I	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	# R. # AVAILABLE	TOTAL ALARM	UNIT II	TOTAL FAR	TOTAL NAR	WEATHER	ANIMAL ALARM	TRASH ALARM	# R. # AVAILABLE	TOTAL ALARM
E01	0	3	0	3	0	7.0	3	M01	2	4	0	4	0		6
E02	0	3	2	1	0	7.0	3	M02	0	5	0	5	0		5
E03	9	80	66	11	3	11008	89	M03	4	25	15	10	0	116022	29
E05	1	1	0	1	0	7.0	2	M09	0	3	2	1	0		3
E06	0	1	0	1	0	7.0	1	M12	0	4	0	4	0		4
E08	1	1	1	0	0	7.0	2	M47	0	7	3	4	0		7
E09	1	42	34	6	2	687	43	M25	0	18	0	18	0		18
E11	0	1	0	1	0	7.0	1	M26	0	6	0	6	0		6
E12	0	0	0	0	0	7.0	0	M27	0	8	0	8	0		8
E13	0	0	0	0	0	7.0	0	M28	0	2	0	2	0	116015	2
E14	0	2	0	2	0	7.0	2	M30	0	5	0	5	0		5
E15	0	7	0	7	0	7.0	7	M31	0	2	0	2	0		2
E20	0	11	3	8	0	7.0	11	M32	0	7	0	7	0		7
E21	0	0	0	0	0	7.0	0	M33	0	0	0	0	0		0
E22	0	5	0	5	0	7.0	5	M34	0	13	0	13	0		13
E23	0	5	1	4	0	7.0	5	M35	4	83	17	43	3		87
E44	0	2	0	2	0	7.0	2	M37	0	11	0	11	0		11
E46	0	10	5	5	0	687	10	M38	8	13	0	13	0	116021	21
E48	0	6	0	6	0	7.0	6	M39	2	1	0	1	0		3
E50	0	5	0	5	0	7.0	5	M40	0	3	0	3	0		3
TOTAL	12	185	112	68	5	138.6	197	M41	1	4	0	4	0		5
								M42	0	1	0	1	0		1
								M43	0	1	0	0	1		1
								TOTAL	21	226	37	185	4		157.84
								W-35	0	0	0	0	0		7.0
															247
															0

METS P. 6-5-44
 Ca: Max 9
 Records 5 Alarms Ar.
 Zone Ar 24 hour Alarm.

AVERAGE

E-FIELD
1.42

MICROWAVE
1.56

E-FIELD/MICROWAVE
 COMBINED
1.49

ATTACHMENT /
 ST-HL-AE-3420
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