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Nevada Department of Public Safety

October 17, 2014

ALLEGATIONS BY VARIOUS NEVADA FIRE DEPARTMENTS THAT ELECTRIC METERS IN NV ENERGY'S REPLACEMENT PROGRAM HAVE CAUSED ELEVEN FIRES WITHIN THEIR JURISDICTIONS

Background

The Nevada State Fire Marshal Division (Division) was approached recently by the Sparks and Reno Fire Departments to look into a number of fires, particularly nine specific fires, which they allege are related to the use of new electric meters at customer premises.

On October 6, 2014, the East Fork Fire Protection District delivered two additional reports from 2013 fire incidents wherein they also allege the electric meters were complicit in the origin of the respective fires.

In 2011 NV Energy, the public electric utility across a large area of the state, began replacing older analog electric meters with new digital, communicating electric meters manufactured by Sensus. The meter replacement program is now complete in most areas. At a customer's request, the utility will reinstall an older analog electric meter if the customer bears the increased cost in its installation and use.

Role of the State Fire Marshal

In accordance with NRS 475.125(1), the investigation as to the cause, origin and circumstances of each fire which occurs within its jurisdiction is the responsibility of each fire department in the state.

NRS 477.030(6)(b) allows the chief of a fire department in a county exceeding 100,000 population or is a consolidated municipality (currently Clark County, Washoe County and Carson City) to request the State Fire Marshal's assistance with the investigation of a fire from which a death results or which is of a suspicious nature. The chiefs of the two involved fire departments have not requested the State Fire Marshal assist with the investigation of any individual fire during the involved time period.

NRS 477.030(6)(a) requires the State Fire Marshal to investigate any fire in a county whose population is less than 100,000 from which a death results or is of a suspicious nature. This covers fourteen of the seventeen counties in the state. Within the past ten years, the Division has not investigated a fire whose origin is at an electric meter of any type, make or model.

The State Fire Marshal is charged with providing assistance and materials for public education and other fire prevention activities in accordance with NRS 477.030(8). Publication of fire incident data reported by the individual fire departments in the state is also the responsibility of the State Fire Marshal in NRS 477.030(7).

In light of the above statutory authority, the State Fire Marshal is collecting statistical information extracted from the National Fire Incident Reporting System (NFIRS), fire incident reports released by fire departments and documents provided by the electric utility company for the purpose of sharing the information with the Nevada fire service and other interested parties.

To collect the information, the State Fire Marshal in a previous January 3, 2013 email to local fire marshals, requested fire incident reports identifying electric meters as the origin and cause of any fire. The State Fire Marshal also met with the six fire chiefs of the departments in Clark County on September 22, 2014. All six confirmed that they had no reports of electric meters being found to be the origin of a fire.

To date, only the Reno Fire Department, the Sparks Fire Department and the East Fork Fire Protection District have provided fire department fire incident reports alleging the electric meter is the origin and cause of a fire.

In a meeting with Sparks Fire Marshal Robert King and Reno Fire Marshal Jeffery Donahue in Sparks on September 25, 2014, they were asked if the two fire departments wanted to continue to use all nine of the cited fire incidents to support their allegations of electric meters as the cause of a fire or if any one or more of the incidents should be withdrawn from consideration. They restated that all nine incidents provided by the fire departments supported their allegations and should remain under consideration.

A similar meeting was held with Captain Terry Taylor of the East Fork Fire Protection District on October 7, 2014, and he also concurred in maintaining the two incidents from his district as being caused by the electric meter.

NV Energy was also contacted for an opportunity to provide information on the meter replacement program and, specifically, response to the eleven alleged fire incidents. Correspondence from NV Energy can be found in Attachment C. NV Energy's consultant's reports for various fire incidents can be found following each respective fire department incident reports, as applicable, in Attachments D, G, H and L.

Ten-year statewide fire incident data

Fire cause data for Nevada for calendar years 2005 through 2014, inclusive, was retrieved from the National Fire Data Center, part of the U.S. Fire Administration, Federal Emergency Management Agency (FEMA). Fire departments and fire districts throughout the state report fire incident information directly to FEMA. Fire departments are required to report fire incident data at least semi-annually in accordance with Nevada Administrative Code (NAC) 477.905. Assistance is available from the Division for those departments facing technical difficulties. Compliance with NFIRS reporting is usually a requirement of grants from FEMA to a local fire department.

The cause category most directly related to electric meter failures as alleged by the three local fire agencies is Code 13, "Arcing." There is no cause category that specifically focuses on electric meters. Arcing includes fire originating in any energized electrical equipment, panels, wiring or appliances.

In the previously noted September 25, 2014, meeting with the fire marshals for the Reno and Sparks Fire Department, they were also asked if the Division should be extracting any other cause category to reflect the nature of the alleged cause of these fire incidents. No additional cause categories were offered by the local fire marshals.

The trend in fire incident data where "Arcing" is cited by the fire departments across the state continues to trend downward. In 2009 and 2010, the two years prior to the start of the electric meter change-out from analog to digital, there were respectively 267 and 243 fires caused by "Arcing." In 2012 and 2013, the last two years for which there is complete data available, there were respectively 164 and 152 fires reportedly caused by "Arcing." (See Attachment A.1 for supporting data and summary graph.)

The Reno Fire Department, in their NFIRS reporting, showed a drop from a high of 37 "Arcing " incidents in 2009 to 22 incidents in 2012 and 15 incidents in 2013. The Reno Fire Department has not submitted any fire incident data to NFIRS for calendar year 2014. (See Attachment A.2 for supporting data and summary graph.)

The Sparks Fire Department reported fire incidents to NFIRS also demonstrating a downward trend from a high of twelve (12) "Arcing" incidents in 2005 to only four (4) incidents in both 2012 and year-to-date 2014. (See Attachment A.3 for supporting data and summary graph.)

Comparable statistics for the East Fork Fire Protection District are low in number and do not provide a consistent trend analysis.

The number of "Undetermined" causes remains relatively consistent over the same ten-year time period and does not account for any decrease in other cause categories, including Code 13 "Arcing."

Alleged electric meter fire incidents

Fire incident reports from the three fire departments and response from NV Energy is provided as submitted to this Division. A summary spreadsheet of all eleven alleged incidents in chronological order is provided in Attachment B.

The full text of each report can be found in Attachments D through N.

Observations

- No other fire department in the state has submitted to this Division fire incident reports with similar problems.
- The Division has not investigated a fire in the fourteen smaller population counties where an electric meter of any type, make or model has been the origin or cause of a fire in the past ten years.
- Only seven of the eleven alleged electric meter fire incidents were investigated by fire investigators from two of the subject fire departments. Two incident reports provided by the fire departments, one each Reno and Sparks, had no photo-documentation or detailed analysis for review and dissemination of information to the fire service.
- One of the above two incidents involved an electric meter that was not damaged by a fire in the adjacent branch circuit panel and was reported by NV Energy to have been reinstalled in the repaired panel. The utility reports that this meter is still functioning normally as of this date.
- A Reno fire investigator acknowledges that one electric meter communicated normally almost a full minute after an extended burn time was noticed by a neighbor and 9-1-1 was called. The investigator then assigns possible origin and cause to failure of the electric meter without explanation.
- Three of the eleven fire incident reports are coded for NFIRS submittal as "Undetermined" and are not assigned to the electric meter.
- In the cases of two of the fire incidents, both parties indicate that further investigation is warranted to determine the facts in each case.
- While electrical arcing within the meter box or adjacent branch circuit panel is evident based on the information provided by both city fire departments and the electric utility company in some of these incidents, it is not conclusive that a product malfunction of a certain type, make or model of electric meter occurred.

Conclusions

1. The number of electrical arcing fire incidents in the state is continuing a downward trend since prior to and following the implementation of the electric meter replacement program by NV Energy.

2. No statewide fire problem is evident at this time in Nevada from the replacement of electric meters by NV Energy.

Continued monitoring of this situation would be prudent given the public concern raised.

Qualified fire investigators should be used to document all future alleged electric meter fires to determine the origin and cause of each fire.

Should any fire department in the state submit any additional fire incident reports, the incident reports with photographs, supporting engineering documentation and an opportunity for the affected electric utility to respond will be gathered and shared with the Nevada Fire Service and interested parties.

Prepared by:

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ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

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- **A.2** City of Reno NFIRS Data, 2005-2014
- **A.3** City of Sparks NFIRS Data, 2005-2014
- **A.4** East Fork Fire Protection District NFIRS Data, 2005-2014

Attachment B Fire Department/NV Energy Fire Incident Summaries

Attachment C NV Energy Correspondence

Attachment D 6074 Torrington Drive, Reno, November 11, 2012 Incident

- **D.1** Reno Fire Department Report
- **D.2** NV Energy Documents

Attachment E 6 East H Street, Sparks, November 30, 2012 Incident, Sparks Fire Department Report

Attachment F 1521 G Street, Sparks, December 12, 2012 Incident, Sparks Fire Department Report

Attachment G 200 East Lincoln Way, Sparks, January 2, 2013 Incident

- **G.1** Sparks Fire Department Report
- **G.2** NV Energy Documents

Attachment H 7255 Windswept Loop, Sparks, January 11, 2013 Incident

- **H.1** Sparks Fire Department Report
- **H.2** NV Energy Documents

Attachment I 1210 Firefly Court, Reno, May 21, 2014 Incident, Reno Fire Department Report

Attachment J 160 Arletta Street, Reno, June 11, 2014 Incident, Reno Fire Department Report

Attachment K 4742 El Cap Court, Sparks, June 12, 2014 Incident, Sparks Fire Department Report

Attachment L 7625 Rhinestone Circle, Reno, July 27, 2014 Incident

- **L.1** Reno Fire Department Report
- **L.2** NV Energy Documents

Attachment M 1521 Church Street, Gardnerville, June 4, 2013 Incident, East Fork Fire Protection District Report

ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

Attachment N	**1369 North US 395 Highway, Gardnerville, July 1, 2013 Incident, East Fork Fire Protection District Report**
Attachment O	**Oracle Forensics Report Dated 8/27/2014, Prepared on Behalf of the Reno Fire Department for Fire Incidents on Rhinestone, Arletta, El Cap and Windswept in the Cities of Reno and Sparks**

ATTACHMENT A

NFIRS Data

A.1 State of Nevada Statewide NFIRS Data, Calendar Years 2005—2014

A.2 City of Reno NFIRS Data, Calendar Years 2005—2014

A.3 City of Sparks NFIRS Data, Calendar Years 2005—2014

A.4 East Fork Fire Protection District NFIRS Data, Calendar Years 2005—2014

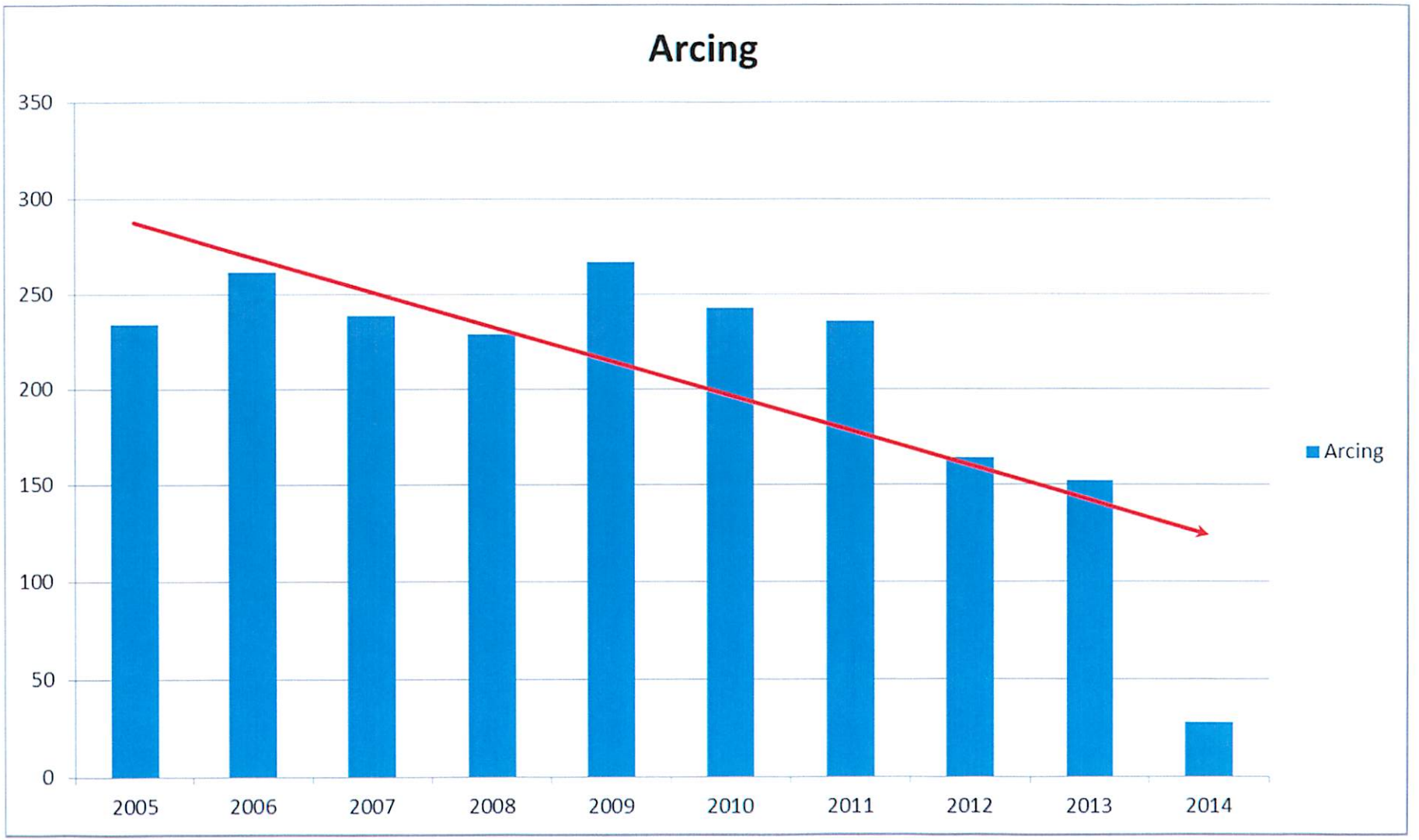
ATTACHMENT A.1

NFIRS Data

State of Nevada—Statewide
Calendar Years 2005—2014

Retrieved from the National Data Center on
September 18, 2014

NFIRS DATA – Heat Source of All Fires



Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2005 to 12/31/2005

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	149	3.87 %	4	6.58	0.08	0.13	3.14	0.03	0.14	12.54	1,869.18	7.42
10	Heat from powered equipment, other	305	7.91 %	0	8.72	0.08	0.05	3.31	0.03	0.06	8.38	2,555.10	6.52
11	Spark, ember or flame from operating equipment	174	4.51 %	0	8.63	0.02	0.01	3.07	0.02	0.01	6.70	1,165.12	6.87
12	Radiated, conducted heat from operating equipment	332	8.61 %	2	9.27	0.02	0.13	3.37	0.01	0.08	7.61	2,525.00	6.76
13	Arcing	234	6.07 %	0	9.39	0.03	0.06	3.40	0.01	0.05	15.78	3,691.68	6.55
40	Hot or smoldering object, other	143	3.71 %	0	8.55	0.07	0.13	3.20	0.04	0.10	11.42	1,632.43	18.41
41	Heat, spark from friction	44	1.14 %	0	6.55	0.11	0.05	2.41	0.05	0.05	10.52	462.82	75.82
42	Molten, hot material	17	0.44 %	0	9.06	0.00	0.00	3.18	0.00	0.00	7.28	123.77	7.71
43	Hot ember or ash	133	3.45 %	0	7.52	0.02	0.10	2.75	0.01	0.03	13.17	1,752.10	7.44
50	Explosive, fireworks, other	28	0.73 %	0	7.68	0.00	0.07	2.32	0.00	0.04	9.23	258.47	6.64
51	Munitions	1	0.03 %	0	18.00	0.00	0.00	9.00	0.00	0.00	36.60	36.60	5.00
54	Fireworks	71	1.84 %	0	6.01	0.00	0.03	2.00	0.00	0.04	6.34	450.48	7.42
56	Incendiary device	26	0.67 %	0	4.92	0.08	0.00	2.69	0.00	0.04	7.25	188.43	10.42
60	Heat from other open flame or smoking materials	216	5.60 %	2	7.85	0.03	0.19	3.14	0.05	0.21	30.04	6,489.23	8.65
61	Cigarette	97	2.52 %	0	10.60	0.16	0.07	3.84	0.07	0.09	10.39	1,007.47	6.73
62	Pipe or cigar	1	0.03 %	0	4.00	0.00	0.00	1.00	0.00	0.00	1.27	1.27	6.00
63	Heat from undetermined smoking material	94	2.44 %	1	7.27	0.00	0.01	2.48	0.00	0.02	5.71	536.33	7.37

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2005 to 12/31/2005

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
64	Match	159	4.12 %	0	7.60	0.00	0.04	2.96	0.00	0.05	9.78	1,554.85	7.26
65	Cigarette lighter	38	0.99 %	1	9.53	0.13	0.21	3.84	0.08	0.16	27.31	1,037.70	7.00
66	Candle	35	0.91 %	0	15.46	0.11	0.14	6.71	0.06	0.17	28.62	1,001.80	7.17
67	Warning or road flare; fusee	1	0.03 %	0	17.00	0.00	0.00	8.00	0.00	0.00	37.12	37.12	9.00
68	Backfire from internal combustion engine	24	0.62 %	0	4.08	0.25	0.17	1.29	0.08	0.04	2.08	50.00	7.75
69	Flame/torch used for lighting	32	0.83 %	1	8.88	0.06	0.16	3.94	0.03	0.09	9.07	290.32	10.53
70	Chemical, natural heat source, other	12	0.31 %	0	7.92	0.00	0.00	3.75	0.00	0.00	12.34	148.13	7.50
71	Sunlight	8	0.21 %	0	4.00	0.00	0.00	1.12	0.00	0.00	2.10	16.80	14.25
72	Chemical reaction	18	0.47 %	0	8.83	0.00	0.06	4.22	0.00	0.06	21.11	380.07	7.22
73	Lightning	28	0.73 %	0	7.04	0.07	0.14	2.86	0.04	0.07	7.14	199.88	11.57
74	Other static discharge	2	0.05 %	0	2.50	0.00	0.00	1.00	0.00	0.00	0.49	0.98	3.50
80	Heat spread from another fire, other	0	0.00 %	4									
81	Heat from direct flame, convection currents	0	0.00 %	15									
82	Radiated heat from another fire	0	0.00 %	19									
97	Multiple heat sources including multiple ignitions	19	0.49 %	0	14.16	0.00	0.00	5.21	0.00	0.00	44.68	848.90	8.53
UU	Undetermined	1,414	36.68 %	2	6.52	0.03	0.08	2.52	0.02	0.07	11.68	16,514.67	7.79
	Totals	3,855	100.00 %	51	7.72	0.04	0.08	2.95	0.02	0.07	12.15	46,826.70	8.67
	Mutual Aid Given Incidents	134											

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2006 to 12/31/2006

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	165	3.93 %	3	8.27	0.05	0.07	3.15	0.02	0.05	13.61	2,245.22	7.57
10	Heat from powered equipment, other	360	8.58 %	0	10.21	0.10	0.06	3.46	0.04	0.06	14.47	5,208.05	6.24
11	Spark, ember or flame from operating equipment	219	5.22 %	1	10.22	0.12	0.11	3.64	0.05	0.05	12.46	2,729.70	7.12
12	Radiated, conducted heat from operating equipment	338	8.06 %	1	10.79	0.07	0.11	3.83	0.03	0.09	12.58	4,252.35	6.59
13	Arcing	262	6.25 %	1	9.68	0.05	0.10	3.35	0.01	0.08	15.34	4,019.27	6.42
40	Hot or smoldering object, other	120	2.86 %	0	8.88	0.09	0.08	3.43	0.05	0.05	10.29	1,234.92	7.46
41	Heat, spark from friction	53	1.26 %	0	7.13	0.15	0.17	2.68	0.08	0.09	13.85	733.82	6.83
42	Molten, hot material	12	0.29 %	0	13.67	0.00	0.00	4.50	0.00	0.00	29.18	350.20	8.92
43	Hot ember or ash	102	2.43 %	0	8.80	0.25	0.07	3.33	0.11	0.06	12.89	1,315.28	8.25
50	Explosive, fireworks, other	8	0.19 %	0	5.88	0.00	0.12	2.75	0.00	0.12	5.69	45.55	8.88
51	Munitions	1	0.02 %	0	4.00	0.00	0.00	1.00	0.00	0.00	2.80	2.80	20.00
54	Fireworks	52	1.24 %	0	5.29	0.17	0.17	1.87	0.02	0.15	4.65	241.58	7.37
56	Incendiary device	30	0.72 %	0	7.83	0.00	0.13	3.13	0.07	0.13	13.84	415.15	7.77
60	Heat from other open flame or smoking materials	163	3.89 %	2	7.53	0.00	0.11	2.99	0.00	0.09	12.74	2,075.88	8.61
61	Cigarette	137	3.27 %	1	9.97	0.10	0.07	3.46	0.03	0.06	12.65	1,732.98	6.39
62	Pipe or cigar	2	0.05 %	0	10.00	0.00	0.00	4.50	0.00	0.00	7.01	14.02	7.00
63	Heat from undetermined smoking material	78	1.86 %	1	6.73	0.31	0.12	2.31	0.09	0.12	11.38	887.38	8.68

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2006 to 12/31/2006

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
64	Match	144	3.43 %	1	5.92	0.01	0.12	2.20	0.01	0.10	7.64	1,100.22	18.08
65	Cigarette lighter	42	1.00 %	1	10.29	0.02	0.17	4.48	0.02	0.17	20.61	865.55	7.21
66	Candle	54	1.29 %	0	17.17	0.28	0.11	6.54	0.13	0.13	31.99	1,727.68	6.41
67	Warning or road flare; fusee	1	0.02 %	0	4.00	0.00	1.00	1.00	0.00	1.00	12.42	12.42	15.00
68	Backfire from internal combustion engine	33	0.79 %	0	4.91	0.09	0.00	1.73	0.06	0.00	3.03	99.88	5.70
69	Flame/torch used for lighting	49	1.17 %	0	7.27	0.04	0.18	2.82	0.02	0.20	11.12	545.05	9.86
70	Chemical, natural heat source, other	8	0.19 %	0	16.88	0.00	0.12	4.50	0.00	0.25	22.79	182.33	7.00
71	Sunlight	4	0.10 %	0	4.00	0.00	0.00	1.00	0.00	0.00	1.25	5.00	7.00
72	Chemical reaction	18	0.43 %	1	13.67	0.00	0.06	5.50	0.00	0.06	30.15	542.62	5.61
73	Lightning	30	0.72 %	0	3.40	0.00	0.03	1.47	0.00	0.03	30.70	920.88	64.13
74	Other static discharge	4	0.10 %	0	7.25	0.00	0.00	3.75	0.00	0.00	6.53	26.13	6.75
80	Heat spread from another fire, other	3	0.07 %	1	4.33	0.00	0.33	2.00	0.00	0.33	13.94	41.83	10.00
81	Heat from direct flame, convection currents	1	0.02 %	18	6.00	0.00	0.00	1.00	0.00	0.00	4.00	4.00	5.00
82	Radiated heat from another fire	2	0.05 %	17	7.00	0.50	1.00	2.50	0.50	1.00	10.27	20.53	8.50
83	Flying brand, ember, spark	0	0.00 %	1									
84	Conducted heat from another fire	0	0.00 %	4									
97	Multiple heat sources including multiple ignitions	21	0.50 %	0	12.24	0.00	0.10	4.48	0.00	0.10	32.97	692.37	8.33

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2006 to 12/31/2006

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
UU	Undetermined	1,678	40.01 %	6	7.51	0.07	0.08	2.67	0.03	0.07	13.80	23,152.18	10.33
Totals		4,194	100.00 %	60	8.54	0.08	0.09	3.07	0.03	0.07	13.70	57,442.83	9.18
Mutual Aid Given Incidents		97											

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2007 to 12/31/2007

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	309	7.12 %	1	11.11	0.13	0.05	4.44	0.05	0.04	24.37	7,530.12	17.86
10	Heat from powered equipment, other	464	10.70 %	0	11.25	0.13	0.10	3.92	0.05	0.07	11.78	5,467.97	6.78
11	Spark, ember or flame from operating equipment	205	4.73 %	0	10.49	0.14	0.12	3.75	0.04	0.09	12.59	2,581.92	7.04
12	Radiated, conducted heat from operating equipment	338	7.79 %	1	11.09	0.07	0.20	3.82	0.03	0.12	12.81	4,331.22	7.12
13	Arcing	239	5.51 %	0	10.33	0.03	0.10	3.85	0.01	0.10	15.45	3,692.53	6.77
40	Hot or smoldering object, other	178	4.10 %	0	11.18	0.06	0.07	4.09	0.04	0.08	17.21	3,063.02	8.43
41	Heat, spark from friction	36	0.83 %	0	9.67	0.00	0.31	4.11	0.00	0.14	12.23	440.28	11.17
42	Molten, hot material	14	0.32 %	0	20.36	0.00	0.36	7.86	0.00	0.36	33.67	471.43	5.50
43	Hot ember or ash	140	3.23 %	1	10.04	0.04	0.16	3.96	0.02	0.08	11.55	1,616.35	8.36
50	Explosive, fireworks, other	10	0.23 %	0	4.70	0.00	0.20	2.50	0.00	0.20	11.22	112.15	8.60
51	Munitions	1	0.02 %	0	17.00	0.00	0.00	4.00	0.00	0.00	19.27	19.27	25.00
53	Blasting agent	2	0.05 %	0	9.50	0.00	0.00	4.50	0.00	0.00	15.36	30.72	10.00
54	Fireworks	45	1.04 %	1	7.69	0.00	0.11	2.71	0.00	0.11	12.38	556.95	7.87
56	Incendiary device	13	0.30 %	0	8.62	0.00	0.31	3.46	0.00	0.15	17.26	224.37	18.15
60	Heat from other open flame or smoking materials	179	4.13 %	2	12.09	0.06	0.17	4.54	0.03	0.22	60.97	10,914.43	8.62
61	Cigarette	115	2.65 %	0	13.01	0.10	0.32	4.82	0.05	0.19	16.93	1,947.05	6.63
63	Heat from undetermined smoking material	56	1.29 %	0	8.57	0.07	0.20	2.75	0.02	0.20	9.19	514.63	7.59

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2007 to 12/31/2007

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
64	Match	129	2.97 %	0	8.48	0.05	0.07	3.22	0.03	0.07	12.12	1,564.05	8.29
65	Cigarette lighter	55	1.27 %	0	10.98	0.15	0.22	4.69	0.11	0.24	28.27	1,555.02	7.95
66	Candle	37	0.85 %	0	17.30	0.05	0.03	6.65	0.00	0.03	34.76	1,286.08	6.89
68	Backfire from internal combustion engine	20	0.46 %	0	5.55	0.10	0.10	1.85	0.05	0.10	7.03	140.57	6.30
69	Flame/torch used for lighting	56	1.29 %	0	10.70	0.00	0.30	3.95	0.00	0.30	22.15	1,240.37	9.46
70	Chemical, natural heat source, other	13	0.30 %	0	13.92	0.00	0.85	5.23	0.00	0.54	21.52	279.77	9.62
71	Sunlight	4	0.09 %	0	6.25	0.00	0.00	2.50	0.00	0.25	24.75	98.98	6.25
72	Chemical reaction	17	0.39 %	0	8.94	0.00	0.00	3.59	0.00	0.00	10.99	186.82	9.65
73	Lightning	32	0.74 %	0	7.66	0.00	0.03	3.12	0.00	0.06	34.55	1,105.57	37.88
74	Other static discharge	4	0.09 %	0	9.50	1.00	0.00	5.25	0.50	0.00	12.15	48.60	5.00
80	Heat spread from another fire, other	3	0.07 %	5	4.67	0.00	0.67	1.67	0.00	0.67	4.00	12.00	9.67
81	Heat from direct flame, convection currents	5	0.12 %	7	6.00	0.00	1.00	2.80	0.00	0.60	9.43	47.17	7.40
82	Radiated heat from another fire	1	0.02 %	11	5.00	0.00	4.00	2.00	0.00	2.00	6.30	6.30	5.00
83	Flying brand, ember, spark	2	0.05 %	0	7.00	0.00	0.00	3.00	0.00	0.00	253.26	506.52	0.50
97	Multiple heat sources including multiple ignitions	28	0.65 %	2	8.57	0.00	0.07	3.71	0.00	0.07	11.25	314.92	9.00
UU	Undetermined	1,587	36.59 %	8	8.64	0.09	0.07	3.21	0.03	0.07	16.21	25,726.15	9.40
	Totals	4,337	100.00 %	39	10.02	0.09	0.11	3.71	0.03	0.09	17.90	77,633.27	9.21
	Mutual Aid Given Incidents	70											

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2008 to 12/31/2008

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	313	6.42 %	3	12.55	0.07	0.08	4.46	0.03	0.07	23.84	7,462.77	76.49
10	Heat from powered equipment, other	576	11.81 %	0	12.53	0.06	0.05	4.12	0.02	0.05	11.00	6,334.10	7.63
11	Spark, ember or flame from operating equipment	226	4.63 %	0	12.06	0.12	0.08	4.43	0.04	0.10	18.67	4,219.15	6.60
12	Radiated, conducted heat from operating equipment	397	8.14 %	0	12.11	0.04	0.08	4.34	0.01	0.07	12.62	5,011.50	6.56
13	Arcing	229	4.69 %	0	11.10	0.05	0.11	3.99	0.02	0.10	16.43	3,761.78	6.69
40	Hot or smoldering object, other	229	4.69 %	0	13.34	0.17	0.04	4.69	0.07	0.03	17.38	3,979.73	10.80
41	Heat, spark from friction	45	0.92 %	0	6.56	0.09	0.07	2.31	0.04	0.04	15.95	717.57	10.44
42	Molten, hot material	23	0.47 %	1	13.57	0.00	0.00	5.26	0.00	0.04	14.27	328.23	10.22
43	Hot ember or ash	160	3.28 %	0	10.29	0.04	0.08	3.77	0.01	0.09	11.79	1,886.50	9.11
50	Explosive, fireworks, other	6	0.12 %	0	14.17	0.00	0.17	5.67	0.00	0.17	31.22	187.32	7.33
54	Fireworks	40	0.82 %	0	9.50	0.00	0.18	3.10	0.00	0.02	8.41	336.28	6.48
56	Incendiary device	26	0.53 %	0	9.73	0.00	0.12	3.96	0.00	0.19	17.26	448.87	7.58
60	Heat from other open flame or smoking materials	175	3.59 %	3	11.19	0.06	0.20	4.23	0.02	0.23	23.78	4,161.60	7.99
61	Cigarette	138	2.83 %	0	13.01	0.16	0.09	4.64	0.07	0.09	15.65	2,160.38	6.78
62	Pipe or cigar	2	0.04 %	0	10.00	0.00	0.00	4.50	0.00	0.00	25.70	51.40	5.50
63	Heat from undetermined smoking material	55	1.13 %	0	10.31	0.11	0.40	3.53	0.05	0.31	25.06	1,378.20	7.05
64	Match	117	2.40 %	0	7.32	0.03	0.06	2.51	0.02	0.10	8.84	1,034.18	9.33

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2008 to 12/31/2008

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
65	Cigarette lighter	69	1.41 %	0	11.19	0.12	0.38	4.10	0.06	0.36	25.44	1,755.32	7.99
66	Candle	65	1.33 %	0	17.97	0.05	0.15	6.22	0.03	0.18	27.15	1,764.48	6.62
67	Warning or road flare; fusee	3	0.06 %	0	8.67	0.00	0.00	3.33	0.00	0.33	11.52	34.57	12.67
68	Backfire from internal combustion engine	14	0.29 %	0	4.79	0.00	0.07	1.36	0.00	0.07	2.29	32.00	8.14
69	Flame/torch used for lighting	37	0.76 %	0	9.49	0.00	0.11	3.76	0.00	0.16	16.11	596.17	8.00
70	Chemical, natural heat source, other	11	0.23 %	0	11.55	0.18	0.00	4.45	0.09	0.09	22.40	246.35	8.82
71	Sunlight	3	0.06 %	0	16.00	0.00	0.33	5.00	0.00	0.33	18.19	54.58	5.67
72	Chemical reaction	20	0.41 %	0	12.05	0.00	0.05	4.15	0.00	0.10	27.38	547.62	11.05
73	Lightning	33	0.68 %	0	6.42	0.00	0.06	2.33	0.00	0.06	21.55	711.17	22.97
74	Other static discharge	2	0.04 %	0	10.50	0.00	0.00	3.00	0.00	0.00	5.92	11.85	5.50
80	Heat spread from another fire, other	15	0.31 %	6	7.33	0.00	0.80	3.40	0.00	0.60	10.63	159.42	11.47
81	Heat from direct flame, convection currents	6	0.12 %	13	4.83	0.00	0.00	3.00	0.00	0.00	2.84	17.07	9.00
82	Radiated heat from another fire	2	0.04 %	14	9.00	0.00	0.00	2.50	0.00	0.00	20.67	41.33	9.50
83	Flying brand, ember, spark	5	0.10 %	0	6.40	0.80	0.20	2.20	0.40	0.20	6.44	32.20	8.60
84	Conducted heat from another fire	3	0.06 %	0	4.00	0.00	0.00	1.33	0.00	0.00	1.51	4.53	7.00
97	Multiple heat sources including multiple ignitions	29	0.59 %	1	12.45	0.41	0.21	5.14	0.14	0.24	28.58	828.78	12.83
UU	Undetermined	1,805	37.00 %	10	8.93	0.06	0.07	3.27	0.02	0.07	15.09	27,243.32	9.41

Totals	4,879	100.00 %	51	10.69	0.07	0.09	3.83	0.03	0.09	15.89	77,540.32	12.94
Mutual Aid Given Incidents	65											

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2009 to 12/31/2009

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	329	7.25 %	1	11.90	0.02	0.05	4.18	0.01	0.03	19.45	6,398.07	7.46
10	Heat from powered equipment, other	550	12.12 %	0	14.02	0.12	0.09	4.78	0.04	0.05	10.44	5,742.05	6.17
11	Spark, ember or flame from operating equipment	234	5.16 %	0	13.19	0.19	0.22	4.91	0.08	0.09	107.19	25,081.50	198.49
12	Radiated, conducted heat from operating equipment	370	8.15 %	0	12.91	0.09	0.06	4.64	0.04	0.06	12.20	4,512.50	6.52
13	Arcing	267	5.88 %	0	12.08	0.08	0.12	4.33	0.04	0.07	18.96	5,063.35	6.49
40	Hot or smoldering object, other	204	4.50 %	0	14.76	0.12	0.03	5.29	0.04	0.04	19.45	3,968.18	6.75
41	Heat, spark from friction	42	0.93 %	1	6.62	0.24	0.02	2.90	0.12	0.05	9.73	408.83	8.48
42	Molten, hot material	18	0.40 %	0	11.89	0.11	0.44	3.67	0.06	0.22	12.74	229.38	10.94
43	Hot ember or ash	160	3.53 %	0	11.71	0.11	0.04	4.54	0.06	0.04	20.90	3,343.48	8.00
50	Explosive, fireworks, other	6	0.13 %	0	13.33	0.00	0.00	4.83	0.00	0.00	30.65	183.92	8.50
53	Blasting agent	1	0.02 %	0	8.00	0.00	0.00	12.00	0.00	0.00	20.27	20.27	6.00
54	Fireworks	21	0.46 %	0	7.14	0.00	0.05	2.29	0.00	0.10	14.94	313.82	10.62
56	Incendiary device	21	0.46 %	0	8.76	0.05	0.10	3.48	0.05	0.10	25.82	542.18	9.24
60	Heat from other open flame or smoking materials	173	3.81 %	1	10.57	0.06	0.17	4.27	0.02	0.20	16.09	2,784.25	8.05
61	Cigarette	110	2.42 %	0	14.86	0.09	0.20	5.18	0.05	0.12	18.62	2,048.08	6.03
62	Pipe or cigar	2	0.04 %	0	21.00	0.00	0.00	7.00	0.00	0.00	7.36	14.72	6.00
63	Heat from undetermined smoking material	30	0.66 %	0	9.03	0.00	0.20	2.83	0.00	0.20	10.74	322.05	6.73

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2009 to 12/31/2009

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
64	Match	102	2.25 %	0	6.57	0.04	0.09	2.50	0.03	0.10	8.42	858.62	7.97
65	Cigarette lighter	66	1.45 %	0	12.33	0.06	0.18	5.29	0.02	0.20	20.28	1,338.20	6.82
66	Candle	33	0.73 %	0	19.12	0.18	0.03	6.36	0.06	0.03	35.79	1,180.97	8.24
67	Warning or road flare; fusee	2	0.04 %	0	17.00	0.00	0.00	8.50	0.00	0.00	150.17	300.33	56.50
68	Backfire from internal combustion engine	13	0.29 %	0	6.92	0.23	0.23	2.23	0.08	0.23	10.33	134.35	7.15
69	Flame/torch used for lighting	39	0.86 %	0	12.67	0.10	0.08	4.33	0.03	0.05	21.41	835.07	6.49
70	Chemical, natural heat source, other	17	0.37 %	0	15.29	0.06	0.06	5.35	0.06	0.06	27.99	475.85	9.71
71	Sunlight	5	0.11 %	0	5.80	0.00	0.00	2.60	0.00	0.00	3.68	18.38	10.80
72	Chemical reaction	19	0.42 %	0	14.16	1.11	0.11	5.63	0.47	0.21	42.22	802.18	9.37
73	Lightning	34	0.75 %	0	6.50	0.00	0.59	2.06	0.00	0.06	143.59	4,881.98	70.94
74	Other static discharge	4	0.09 %	0	11.50	0.00	0.25	5.50	0.00	0.25	6.58	26.32	15.50
80	Heat spread from another fire, other	16	0.35 %	8	11.50	0.12	0.50	4.50	0.06	0.50	38.03	608.50	8.50
81	Heat from direct flame, convection currents	17	0.37 %	11	11.65	1.41	0.00	4.59	0.53	0.00	16.63	282.73	7.29
82	Radiated heat from another fire	4	0.09 %	15	14.00	0.00	0.00	7.75	0.00	0.00	29.42	117.68	12.75
83	Flying brand, ember, spark	4	0.09 %	0	10.25	0.00	0.00	4.00	0.00	0.00	23.21	92.85	8.50
84	Conducted heat from another fire	10	0.22 %	1	8.20	0.10	0.00	3.90	0.10	0.00	13.40	134.03	11.30
97	Multiple heat sources including multiple ignitions	23	0.51 %	0	11.48	0.26	0.04	3.87	0.13	0.09	25.21	579.87	10.26

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2009 to 12/31/2009

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
UU	Undetermined	1,592	35.08 %	4	10.46	0.10	0.08	3.77	0.04	0.07	24.14	38,427.13	8.98
	Totals	4,538	100.00 %	42	11.75	0.10	0.10	4.24	0.04	0.07	24.70	112,071.68	18.12
	Mutual Aid Given Incidents	88											

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2010 to 12/31/2010

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	306	7.15 %	1	11.59	0.13	0.08	4.52	0.06	0.09	22.56	6,902.07	12.15
10	Heat from powered equipment, other	569	13.29 %	0	12.52	0.13	0.04	4.25	0.04	0.03	12.04	6,850.55	6.14
11	Spark, ember or flame from operating equipment	222	5.18 %	2	11.46	0.18	0.08	4.22	0.07	0.07	13.21	2,933.55	7.37
12	Radiated, conducted heat from operating equipment	355	8.29 %	0	12.03	0.13	0.06	4.36	0.05	0.06	15.51	5,505.68	6.63
13	Arcing	243	5.67 %	0	11.83	0.09	0.16	4.33	0.04	0.13	18.55	4,508.02	6.96
40	Hot or smoldering object, other	229	5.35 %	1	13.03	0.21	0.04	4.72	0.07	0.04	13.51	3,092.82	6.71
41	Heat, spark from friction	40	0.93 %	0	9.78	0.22	0.08	3.88	0.12	0.08	31.22	1,248.75	9.68
42	Molten, hot material	19	0.44 %	0	10.53	0.11	0.11	3.89	0.05	0.11	10.67	202.77	7.89
43	Hot ember or ash	122	2.85 %	9	11.40	0.11	0.20	4.54	0.04	0.14	14.91	1,818.85	13.14
50	Explosive, fireworks, other	3	0.07 %	0	6.33	0.00	0.33	2.33	0.00	0.33	5.81	17.42	7.33
51	Munitions	1	0.02 %	0	17.00	0.00	0.00	11.00	0.00	0.00	14.17	14.17	10.00
54	Fireworks	25	0.58 %	0	8.28	0.00	0.12	3.60	0.00	0.16	9.12	228.05	5.96
56	Incendiary device	15	0.35 %	0	12.67	1.40	0.13	5.27	0.80	0.13	72.16	1,082.42	7.47
60	Heat from other open flame or smoking materials	138	3.22 %	1	11.49	0.19	0.16	4.41	0.07	0.19	18.42	2,542.17	8.53
61	Cigarette	147	3.43 %	0	13.14	0.15	0.13	4.70	0.07	0.11	14.30	2,102.35	6.70
62	Pipe or cigar	2	0.05 %	0	3.00	0.00	0.00	2.50	0.00	0.00	3.42	6.83	27.00
63	Heat from undetermined smoking material	59	1.38 %	0	8.14	0.07	0.12	2.80	0.03	0.17	12.79	754.55	7.66

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2010 to 12/31/2010

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
64	Match	76	1.77 %	0	9.16	0.20	0.05	4.36	0.13	0.07	13.98	1,062.75	8.93
65	Cigarette lighter	63	1.47 %	2	9.68	0.19	0.16	3.67	0.08	0.13	15.84	997.72	8.06
66	Candle	41	0.96 %	0	19.44	0.07	0.07	7.12	0.02	0.07	29.25	1,199.30	5.73
67	Warning or road flare; fusee	1	0.02 %	0	4.00	0.00	0.00	1.00	0.00	0.00	2.27	2.27	5.00
68	Backfire from internal combustion engine	16	0.37 %	0	10.25	0.00	0.31	3.44	0.00	0.12	14.12	225.95	5.69
69	Flame/torch used for lighting	30	0.70 %	0	9.17	0.20	0.60	4.00	0.10	0.17	78.91	2,367.18	63.70
70	Chemical, natural heat source, other	15	0.35 %	0	11.93	0.73	0.00	4.60	0.20	0.00	23.05	345.72	6.67
71	Sunlight	6	0.14 %	0	9.33	4.00	0.17	2.83	1.33	0.33	13.06	78.38	8.67
72	Chemical reaction	16	0.37 %	0	11.81	0.12	0.38	4.69	0.06	0.12	24.04	384.63	10.19
73	Lightning	29	0.68 %	0	7.31	0.00	3.03	2.86	0.00	1.00	341.49	9,903.28	90.55
74	Other static discharge	4	0.09 %	0	5.25	0.00	0.00	2.00	0.00	0.00	2.98	11.93	5.25
80	Heat spread from another fire, other	8	0.19 %	9	14.50	0.12	0.25	5.62	0.12	0.38	40.10	320.78	6.75
81	Heat from direct flame, convection currents	34	0.79 %	8	11.59	0.26	0.15	4.47	0.09	0.15	17.55	596.68	7.29
82	Radiated heat from another fire	3	0.07 %	13	7.67	0.00	0.00	3.67	0.00	0.00	12.37	37.10	8.00
83	Flying brand, ember, spark	9	0.21 %	0	11.78	0.22	0.56	5.00	0.11	0.33	20.05	180.45	8.78
84	Conducted heat from another fire	7	0.16 %	0	13.43	0.86	0.00	5.86	0.29	0.00	10.35	72.48	9.43
97	Multiple heat sources including multiple ignitions	26	0.61 %	0	14.50	0.00	0.00	5.62	0.00	0.00	34.02	884.40	8.04

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2010 to 12/31/2010

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
UU	Undetermined	1,403	32.77 %	5	9.93	0.05	0.12	3.94	0.03	0.09	39.66	55,644.33	8.52
Totals		4,282	100.00 %	51	11.21	0.13	0.12	4.23	0.05	0.09	26.65	114,126.35	9.00
Mutual Aid Given Incidents		49											

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2011 to 12/31/2011

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	339	7.33 %	0	10.71	0.08	0.06	4.29	0.04	0.07	14.93	5,061.28	6.96
10	Heat from powered equipment, other	650	14.06 %	0	12.57	0.04	0.11	4.60	0.02	0.07	9.96	6,472.10	8.27
11	Spark, ember or flame from operating equipment	261	5.64 %	2	12.41	0.14	0.15	4.73	0.06	0.11	15.37	4,011.03	7.57
12	Radiated, conducted heat from operating equipment	377	8.15 %	2	11.84	0.21	0.06	4.62	0.09	0.06	12.32	4,634.20	6.59
13	Arcing	236	5.10 %	0	11.25	0.18	0.08	4.47	0.08	0.08	18.08	4,267.38	7.05
40	Hot or smoldering object, other	204	4.41 %	2	12.43	0.17	0.08	4.60	0.07	0.05	18.66	3,807.22	16.52
41	Heat, spark from friction	38	0.82 %	0	8.39	0.05	0.00	3.39	0.05	0.00	11.36	431.65	9.82
42	Molten, hot material	20	0.43 %	0	11.50	0.35	0.00	4.45	0.10	0.00	11.07	221.35	8.25
43	Hot ember or ash	174	3.76 %	1	11.56	0.16	0.07	4.55	0.07	0.06	14.11	2,455.25	7.69
50	Explosive, fireworks, other	10	0.22 %	0	3.20	0.00	0.10	1.30	0.00	0.10	1.70	16.95	13.00
51	Munitions	3	0.06 %	0	2.33	0.00	0.00	1.33	0.00	0.00	4.02	12.05	10.33
53	Blasting agent	1	0.02 %	0	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	10.00
54	Fireworks	30	0.65 %	0	9.27	0.00	0.20	3.63	0.00	0.20	9.67	290.17	6.80
55	Model and amateur rockets	1	0.02 %	0	2.00	0.00	0.00	1.00	0.00	0.00	2.37	2.37	18.00
56	Incendiary device	13	0.28 %	0	9.46	0.00	0.46	4.15	0.00	0.46	20.59	267.63	6.15
60	Heat from other open flame or smoking materials	147	3.18 %	0	10.15	0.08	0.16	4.30	0.05	0.19	17.75	2,609.72	8.59
61	Cigarette	138	2.98 %	0	14.47	0.36	0.22	5.68	0.14	0.19	22.34	3,082.85	6.54

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2011 to 12/31/2011

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
62	Pipe or cigar	1	0.02 %	0	9.00	0.00	0.00	9.00	0.00	0.00	35.40	35.40	9.00
63	Heat from undetermined smoking material	38	0.82 %	0	8.55	0.05	0.11	3.03	0.03	0.11	8.50	322.88	7.11
64	Match	95	2.05 %	0	6.66	0.19	0.04	2.86	0.09	0.05	7.39	702.35	8.06
65	Cigarette lighter	72	1.56 %	0	8.89	0.36	0.19	4.07	0.15	0.19	16.48	1,186.25	8.51
66	Candle	29	0.63 %	0	19.03	0.00	0.41	7.31	0.00	0.24	28.41	823.82	5.28
67	Warning or road flare; fusee	2	0.04 %	0	3.50	0.00	0.50	1.00	0.00	0.50	6.30	12.60	6.50
68	Backfire from internal combustion engine	10	0.22 %	0	10.30	0.00	0.00	3.20	0.00	0.00	7.44	74.38	6.30
69	Flame/torch used for lighting	33	0.71 %	0	9.21	0.15	0.24	4.30	0.12	0.27	16.25	536.23	11.24
70	Chemical, natural heat source, other	10	0.22 %	0	14.40	0.00	0.30	5.30	0.00	0.30	13.63	136.28	6.40
71	Sunlight	4	0.09 %	0	12.25	0.00	0.25	4.25	0.00	0.25	5.52	22.07	9.00
72	Chemical reaction	19	0.41 %	0	13.63	0.11	0.00	6.58	0.05	0.00	37.25	707.82	9.32
73	Lightning	42	0.91 %	1	7.00	0.50	1.00	3.31	0.24	0.33	93.96	3,946.20	21.21
74	Other static discharge	4	0.09 %	0	5.00	0.00	0.00	2.00	0.00	0.25	9.20	36.80	5.00
80	Heat spread from another fire, other	32	0.69 %	42	10.59	0.38	0.66	5.34	0.22	0.16	25.80	825.62	11.62
81	Heat from direct flame, convection currents	85	1.84 %	13	12.60	0.19	0.07	5.07	0.08	0.09	11.05	939.47	6.08
82	Radiated heat from another fire	6	0.13 %	18	23.17	0.00	0.00	9.33	0.00	0.00	29.30	175.82	4.33
83	Flying brand, ember, spark	12	0.26 %	0	8.33	0.17	0.08	4.25	0.17	0.08	30.56	366.73	8.58

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2011 to 12/31/2011

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
84	Conducted heat from another fire	11	0.24 %	0	12.27	0.64	0.09	5.09	0.27	0.09	13.95	153.43	6.91
97	Multiple heat sources including multiple ignitions	21	0.45 %	0	14.95	0.00	0.05	6.19	0.00	0.10	48.53	1,019.17	9.86
UU	Undetermined	1,456	31.49 %	5	9.32	0.10	0.10	3.84	0.05	0.09	17.96	26,144.55	9.76
Totals		4,624	100.00 %	86	10.85	0.13	0.11	4.31	0.06	0.09	16.40	75,811.07	8.80
Mutual Aid Given Incidents		46											

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2012 to 12/31/2012

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	309	7.75 %	3	10.26	0.12	0.06	4.16	0.05	0.05	14.01	4,329.78	12.39
10	Heat from powered equipment, other	528	13.25 %	0	11.95	0.17	0.06	4.39	0.07	0.06	11.74	6,200.28	6.10
11	Spark, ember or flame from operating equipment	161	4.04 %	0	9.81	0.04	0.04	3.65	0.04	0.04	9.67	1,556.55	7.93
12	Radiated, conducted heat from operating equipment	242	6.07 %	1	10.73	0.38	0.10	4.27	0.16	0.08	11.21	2,713.52	6.67
13	Arcing	164	4.12 %	0	10.75	0.13	0.18	4.39	0.05	0.16	20.21	3,314.90	8.12
40	Hot or smoldering object, other	163	4.09 %	0	14.13	0.06	0.07	5.74	0.06	0.07	27.81	4,532.45	23.91
41	Heat, spark from friction	32	0.80 %	0	6.78	0.03	0.00	2.91	0.03	0.00	8.39	268.58	8.00
42	Molten, hot material	17	0.43 %	0	10.65	0.18	0.06	4.18	0.12	0.06	18.67	317.37	8.41
43	Hot ember or ash	123	3.09 %	0	12.01	0.09	0.09	4.82	0.05	0.10	19.32	2,376.28	9.68
50	Explosive, fireworks, other	9	0.23 %	0	5.44	0.22	0.11	2.44	0.11	0.22	6.14	55.22	5.67
51	Munitions	3	0.08 %	0	7.33	0.00	0.33	3.67	0.00	0.33	8.07	24.22	6.33
54	Fireworks	25	0.63 %	0	6.44	0.00	0.08	2.88	0.00	0.08	9.86	246.47	6.76
56	Incendiary device	19	0.48 %	0	8.11	0.21	0.00	3.89	0.11	0.00	13.75	261.25	7.32
60	Heat from other open flame or smoking materials	121	3.04 %	4	10.74	0.22	0.23	4.61	0.11	0.22	17.63	2,132.92	7.84
61	Cigarette	130	3.26 %	0	14.98	0.13	0.32	6.00	0.06	0.20	28.54	3,710.38	6.38
62	Pipe or cigar	3	0.08 %	0	4.67	0.00	1.00	2.67	0.00	1.00	3.21	9.62	5.00
63	Heat from undetermined smoking material	32	0.80 %	0	12.50	0.16	0.09	5.28	0.06	0.09	140.72	4,503.03	8.56

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2012 to 12/31/2012

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
64	Match	72	1.81 %	0	6.65	0.03	0.11	3.06	0.06	0.08	8.18	589.28	8.71
65	Cigarette lighter	76	1.91 %	0	11.47	0.36	0.07	4.72	0.21	0.09	21.38	1,624.87	10.11
66	Candle	33	0.83 %	0	18.06	0.58	0.39	7.33	0.27	0.24	27.93	921.80	6.27
67	Warning or road flare; fusee	1	0.03 %	0	26.00	0.00	1.00	11.00	0.00	1.00	184.05	184.05	4.00
68	Backfire from internal combustion engine	7	0.18 %	0	4.57	0.00	0.00	1.14	0.00	0.00	1.76	12.33	5.00
69	Flame/torch used for lighting	31	0.78 %	0	12.19	0.10	0.65	5.29	0.06	0.23	69.66	2,159.55	6.16
70	Chemical, natural heat source, other	8	0.20 %	0	8.38	0.00	0.00	4.62	0.00	0.00	5.16	41.27	7.75
71	Sunlight	4	0.10 %	0	9.25	0.00	0.00	4.25	0.00	0.00	2.66	10.65	6.50
72	Chemical reaction	16	0.40 %	0	11.12	0.31	0.12	4.56	0.19	0.12	19.23	307.75	5.62
73	Lightning	39	0.98 %	0	7.87	0.00	1.79	2.79	0.00	0.56	182.06	7,100.18	66.41
74	Other static discharge	1	0.03 %	0	7.00	2.00	1.00	2.00	1.00	1.00	33.83	33.83	5.00
80	Heat spread from another fire, other	17	0.43 %	9	11.65	0.00	1.59	5.24	0.00	0.18	23.10	392.75	7.00
81	Heat from direct flame, convection currents	76	1.91 %	7	13.62	0.16	0.12	5.86	0.05	0.09	12.71	965.63	6.29
82	Radiated heat from another fire	11	0.28 %	13	15.45	2.55	0.27	6.55	0.91	0.27	34.13	375.47	7.09
83	Flying brand, ember, spark	15	0.38 %	0	9.27	0.00	0.07	4.53	0.00	0.07	11.93	178.88	8.33
84	Conducted heat from another fire	10	0.25 %	0	20.00	0.20	0.00	7.30	0.10	0.00	215.16	2,151.57	6.50
97	Multiple heat sources including multiple ignitions	22	0.55 %	0	18.50	0.41	0.09	7.27	0.27	0.09	56.64	1,246.18	7.55

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2012 to 12/31/2012

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
UU	Undetermined	1,465	36.76 %	7	10.11	0.09	0.10	4.12	0.04	0.08	61.33	89,853.40	350.39
Totals		3,985	100.00 %	44	10.94	0.14	0.13	4.40	0.07	0.09	36.31	144,702.27	135.05
Mutual Aid Given Incidents		42											

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2013 to 12/31/2013

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	346	8.12 %	6	11.14	0.03	0.09	4.25	0.01	0.08	16.98	5,875.88	41.89
10	Heat from powered equipment, other	498	11.69 %	0	13.11	0.04	0.09	4.67	0.02	0.07	14.86	7,402.77	6.13
11	Spark, ember or flame from operating equipment	164	3.85 %	0	10.82	0.08	0.19	4.07	0.04	0.15	11.79	1,933.28	6.52
12	Radiated, conducted heat from operating equipment	221	5.19 %	0	12.19	0.12	0.22	4.62	0.05	0.16	16.83	3,719.33	8.41
13	Arcing	152	3.57 %	0	9.69	0.20	0.21	3.77	0.09	0.17	13.71	2,069.78	11.64
40	Hot or smoldering object, other	201	4.72 %	0	12.54	0.05	0.06	4.77	0.02	0.07	19.34	3,887.37	6.84
41	Heat, spark from friction	38	0.89 %	0	9.18	0.13	0.13	3.53	0.05	0.08	13.93	529.37	10.95
42	Molten, hot material	15	0.35 %	0	16.40	0.00	0.13	6.67	0.00	0.20	20.89	313.40	5.87
43	Hot ember or ash	153	3.59 %	1	13.69	0.14	0.12	5.42	0.08	0.12	18.41	2,816.67	8.33
50	Explosive, fireworks, other	13	0.31 %	0	6.62	0.00	0.08	2.23	0.00	0.08	29.57	384.35	93.23
54	Fireworks	50	1.17 %	0	7.20	0.04	0.02	2.50	0.02	0.02	6.57	328.45	7.50
55	Model and amateur rockets	1	0.02 %	0	4.00	0.00	0.00	2.00	0.00	0.00	1.40	1.40	7.00
56	Incendiary device	10	0.23 %	0	7.00	0.00	0.00	2.80	0.00	0.00	23.40	233.97	6.70
60	Heat from other open flame or smoking materials	136	3.19 %	3	12.03	0.12	0.42	4.89	0.07	0.35	22.84	3,105.80	7.10
61	Cigarette	126	2.96 %	0	12.40	0.34	0.16	4.65	0.13	0.14	18.27	2,302.43	6.56
62	Pipe or cigar	2	0.05 %	0	21.50	0.00	0.00	8.00	0.00	0.00	11.88	23.75	6.50
63	Heat from undetermined smoking material	30	0.70 %	0	10.83	0.07	0.00	3.83	0.03	0.00	23.44	703.05	6.73

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2013 to 12/31/2013

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
64	Match	81	1.90 %	0	8.04	0.06	0.07	3.21	0.09	0.10	12.87	1,042.57	7.28
65	Cigarette lighter	83	1.95 %	0	10.81	0.13	1.06	4.60	0.11	0.22	31.55	2,618.57	6.94
66	Candle	27	0.63 %	0	16.26	0.33	0.04	6.15	0.04	0.07	25.44	687.00	5.85
67	Warning or road flare; fusee	1	0.02 %	0	36.00	2.00	0.00	13.00	4.00	0.00	67.77	67.77	5.00
68	Backfire from internal combustion engine	10	0.23 %	0	4.60	0.20	0.00	1.40	0.10	0.00	3.11	31.07	6.60
69	Flame/torch used for lighting	26	0.61 %	0	11.08	0.15	0.19	4.54	0.04	0.08	19.87	516.72	7.69
70	Chemical, natural heat source, other	15	0.35 %	0	12.33	0.13	0.40	5.00	0.07	0.20	24.13	361.90	6.33
71	Sunlight	5	0.12 %	0	5.80	0.00	0.20	2.00	0.00	0.20	2.50	12.52	11.40
72	Chemical reaction	21	0.49 %	1	11.10	0.10	0.05	4.62	0.05	0.05	11.65	244.55	11.95
73	Lightning	51	1.20 %	0	6.86	0.04	2.29	2.41	0.02	0.65	365.34	18,632.37	107.00
74	Other static discharge	3	0.07 %	0	2.33	1.00	7.67	1.33	0.33	3.33	4.86	14.58	11.00
80	Heat spread from another fire, other	26	0.61 %	2	14.81	0.08	0.12	6.42	0.04	0.08	21.88	568.77	7.19
81	Heat from direct flame, convection currents	67	1.57 %	5	14.57	0.25	0.42	6.04	0.13	0.27	24.93	1,670.08	7.49
82	Radiated heat from another fire	12	0.28 %	23	14.75	0.25	0.50	6.67	0.08	0.42	29.60	355.18	8.17
83	Flying brand, ember, spark	5	0.12 %	0	16.00	0.00	0.00	7.20	0.00	0.00	23.58	117.90	10.80
84	Conducted heat from another fire	10	0.23 %	1	14.50	0.00	0.20	6.80	0.00	0.20	29.88	298.83	7.70
97	Multiple heat sources including multiple ignitions	21	0.49 %	0	12.52	0.10	0.24	5.67	0.05	0.29	65.37	1,372.83	7.33

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2013 to 12/31/2013

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
UU	Undetermined	1,641	38.51 %	4	9.88	0.06	0.08	3.83	0.03	0.07	23.64	38,789.05	7.67
	Totals	4,261	100.00 %	46	11.03	0.09	0.17	4.24	0.04	0.11	24.19	103,033.30	11.78
	Mutual Aid Given Incidents	53											

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2014 to 09/18/2014

Incomplete data set.

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	30	7.52 %	1	8.53	0.13	0.20	4.17	0.07	0.10	8.22	246.67	7.30
10	Heat from powered equipment, other	44	11.03 %	0	9.93	0.20	0.16	3.73	0.11	0.16	7.10	312.18	6.80
11	Spark, ember or flame from operating equipment	14	3.51 %	0	9.21	0.21	0.64	4.64	0.14	0.57	24.37	341.17	6.64
12	Radiated, conducted heat from operating equipment	24	6.02 %	0	10.88	0.08	0.25	4.33	0.04	0.25	18.28	438.77	9.17
13	Arcing	28	7.02 %	0	9.29	0.43	0.29	4.07	0.21	0.32	18.82	526.88	7.96
40	Hot or smoldering object, other	16	4.01 %	1	9.75	0.00	0.19	4.44	0.00	0.19	13.70	219.27	5.44
41	Heat, spark from friction	1	0.25 %	0	5.00	0.00	0.00	2.00	0.00	0.00	17.50	17.50	5.00
43	Hot ember or ash	12	3.01 %	0	9.75	0.00	0.17	4.58	0.00	0.17	13.12	157.50	5.25
54	Fireworks	1	0.25 %	0	13.00	0.00	0.00	9.00	0.00	0.00	57.42	57.42	5.00
56	Incendiary device	3	0.75 %	0	9.33	0.67	1.33	4.33	0.33	0.67	43.12	129.37	4.33
60	Heat from other open flame or smoking materials	10	2.51 %	1	11.50	0.00	0.30	4.60	0.00	0.20	9.90	98.98	13.70
61	Cigarette	13	3.26 %	0	15.00	0.31	0.69	7.00	0.23	0.38	49.54	644.07	5.85
62	Pipe or cigar	1	0.25 %	0	3.00	0.00	0.00	1.00	0.00	0.00	1.45	1.45	7.00
64	Match	3	0.75 %	0	6.67	0.00	2.00	3.00	0.00	1.00	9.92	29.77	6.33
65	Cigarette lighter	9	2.26 %	0	9.44	0.22	0.11	4.78	0.11	0.22	18.23	164.03	5.00
66	Candle	3	0.75 %	0	29.00	0.00	1.00	11.33	0.00	1.00	66.69	200.07	5.33
69	Flame/torch used for lighting	3	0.75 %	0	6.67	0.00	0.33	3.33	0.00	0.33	6.86	20.57	8.00

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2014 to 09/18/2014

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
70	Chemical, natural heat source, other	1	0.25 %	0	5.00	0.00	0.00	3.00	0.00	0.00	16.92	16.92	7.00
71	Sunlight	1	0.25 %	0	16.00	0.00	0.00	10.00	0.00	0.00	16.27	16.27	7.00
72	Chemical reaction	3	0.75 %	0	12.00	0.00	1.00	5.00	0.00	1.00	27.39	82.17	5.33
80	Heat spread from another fire, other	2	0.50 %	3	5.00	0.00	0.00	3.00	0.00	0.00	7.15	14.30	7.00
81	Heat from direct flame, convection currents	3	0.75 %	4	8.67	0.67	0.33	3.67	0.33	0.33	25.26	75.78	7.33
82	Radiated heat from another fire	0	0.00 %	4									
83	Flying brand, ember, spark	1	0.25 %	0	4.00	0.00	0.00	1.00	0.00	0.00	1.07	1.07	8.00
84	Conducted heat from another fire	1	0.25 %	0	16.00	0.00	0.00	7.00	0.00	0.00	61.33	61.33	7.00
UU	Undetermined	172	43.11 %	0	7.75	0.33	0.36	3.50	0.15	0.28	18.59	3,196.90	12.01
	Totals	399	100.00 %	14	9.11	0.24	0.34	4.04	0.12	0.27	17.72	7,070.38	9.27
	Mutual Aid Given Incidents	13											

Monthly Incident Counts

Fire department incident reports
Calendar Year 2014 through 9/18/2014

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
16050	Airport Authority Fire Dept												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
13006	Amargosa Valley VFD												
Count	5	5	5	0	1	0	1	0	0	0	0	0	17
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
09000	Austin FD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
09001	Battle Mountain VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
03000	Boulder City Fire Department												
Count	158	151	170	169	184	199	0	0	0	0	0	0	1,031
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	1	0	2	2	0	0	0	0	0	0	5
10002	Caliente VFD												
Count	4	2	2	2	1	1	4	3	0	0	0	0	19
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
05000	CARLIN VOLUNTEER FIRE DEPT												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
01012	Carson City Fire Department												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
11050	Central Lyon County FPD												
Count	299	286	243	232	229	255	270	275	0	0	0	0	2,089
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	7	15	9	12	34	23	36	14	0	0	0	0	150
05001	City of Elko Fire Department												
Count	166	156	219	218	180	191	0	0	0	0	0	0	1,130
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	7	6	6	6	2	9	0	0	0	0	0	0	36
17000	City of Ely FD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
03050	CLARK COUNTY FIRE DEPARTMENT												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
17852	Cold Creek VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
16102	Cold Springs #20 VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
17001	County Station #1												
Count	0	0	1	0	0	0	0	0	0	0	0	0	1
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
04050	EAST FORK FIRE & PARAMEDIC DIS												
Count	446	356	423	392	429	430	0	0	0	0	0	0	2,476
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	21	14	22	20	40	24	0	0	0	0	0	0	141

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
07000	Eureka County FPD												
Count	0	1	1	0	0	0	0	0	0	0	0	0	2
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
02902	Fallon Paiute-Shoshone Tribe												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
02000	FALLON/CHURCHILL VOLUNTEER FIR												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
06050	Fish Lake VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
16103	Gerlach VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
08100	Golconda FPD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
06000	Goldfield VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
06051	Goldpoint VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
14002	Grass Valley VFD												
Count	6	4	3	2	3	6	9	5	1	0	0	0	39
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	2	0	0	0	0	0	0	0	2
11100	Hardie Lane												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
03001	Henderson Fire Department												
Count	2,231	1,965	2,131	0	0	0	0	0	0	0	0	0	6,327
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	4	3	2	0	0	0	0	0	0	0	0	0	9
08250	Humboldt FPD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
16107	Hungry Valley FD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
14001	Imlay VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
05002	JACKPOT FIRE												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
09002	Kingston VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
17853	Lackawana VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
03002	Las Vegas Fire and Rescue												
Count	525	7,099	8,060	7,862	8,552	5,720	0	0	0	0	0	0	37,818
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	141	2	2	2	1	1	0	0	0	0	0	0	149
10006	Lincoln County Fire District												
Count	1	0	0	1	0	0	0	0	0	0	0	0	2
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
14000	Lovelock VFD												
Count	7	3	5	1	5	7	12	9	0	0	0	0	49
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	1	0	0	1	0	0	0	0	0	0	2

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
17854	Lund VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
11001	MASON VALLEY FIRE PROTECTION D												
Count	3	0	14	0	0	0	0	0	0	0	0	0	17
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
08904	McDermitt VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
17855	McGill VFD												
Count	6	4	6	0	0	0	0	0	0	0	0	0	16
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
03003	Mesquite Fire & Rescue												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
12050	Mineral County Fire Dept.												
Count	47	39	50	40	46	0	0	0	0	0	0	0	222
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
16902	Nevada ANG FD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
13900	NEVADA TEST SITE												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
16051	North Lake Tahoe Fire PD												
Count	96	109	95	0	0	0	0	0	0	0	0	0	300
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	19	22	13	0	0	0	0	0	0	0	0	0	54
03004	North Las Vegas Fire Dept.												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
11000	North Lyon County FPD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
01851	NV Dept of Forestry												
Count	110	94	74	0	0	0	0	0	0	0	0	0	278
Exposures	0	0	1	0	0	0	0	0	0	0	0	0	1
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	6	1	3	0	0	0	0	0	0	0	0	0	10

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
13000	Nye County FD												
Count	15	8	7	6	7	20	11	10	0	0	0	0	84
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	1	1	2	3	0	1	1	0	0	0	0	9
08150	Orovada VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
10003	PAHRANAGAT VALLEY VOLUNTEER FI												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
13004	PAHRUMP VALLEY FIRE												
Count	173	126	135	108	110	108	109	117	0	0	0	0	986
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	5	3	6	6	4	3	4	2	0	0	0	0	33

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
10004	Panaca Fire Protection Distric												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	4	0	0	0	0	0	0	0	0	0	0	0	4
08200	Paradise Valley VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
10005	Pioche VFD												
Count	2	10	8	4	4	0	0	0	0	0	0	0	28
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	1	0	0	0	0	0	0	0	1
08906	Pueblo Fire Dist.												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
16105	Pyramid Lake VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
16001	Reno Fire Department												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
13005	Round Mountain/Hadley VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
17856	Ruth VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
14901	Rye Patch VFD												
Count	0	0	1	0	1	0	1	1	0	0	0	0	4
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	1	0	1	0	0	0	0	0	2
05957	Shoshone Paiute												
Count	5	6	4	3	1	2	0	0	0	0	0	0	21
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
06001	Silver Peak VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
17850	Snake Valley VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
16002	SPARKS FIRE DEPARTMENT												
Count	781	737	823	792	836	883	925	959	0	0	0	0	6,736
Exposures	0	3	0	2	0	4	3	3	0	0	0	0	15
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	17	11	11	2	11	21	34	24	0	0	0	0	131
17851	Steptoe Valley VFD												
Count	0	0	0	0	1	0	0	0	0	0	0	0	1
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
15050	STOREY COUNTY FIRE DEPARTMENT												
Count	100	85	75	109	107	110	0	0	0	0	0	0	586
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	45	46	32	27	20	28	0	0	0	0	0	0	198
04100	TAHOE DOUGLAS FIRE PROTECTION												
Count	0	0	150	92	114	149	0	0	0	0	0	0	505
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	9	9	12	15	0	0	0	0	0	0	45

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
13007	TONOPAH VOLUNTEER FIRE DEPT												
Count	0	3	0	2	1	0	5	0	0	0	0	0	11
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	1	3	0	0	3	2	0	0	0	0	9
16100	TRUCKEE MEADOWS FIRE PROT DIST												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
16104	Truckee Meadows FPD												
Count	635	562	616	0	0	0	0	0	0	0	0	0	1,813
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	12	10	8	0	0	0	0	0	0	0	0	0	30
08907	Valmy VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
05004	W WENDOVER VOLUNTEER FIRE DEPT												
Count	66	49	70	0	76	51	66	66	0	0	0	0	444
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	1	2	2	0	1	4	10	2	0	0	0	0	22
16106	Wadsworth VFD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
12904	Walker River FD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
05003	Wells VFD												
Count	5	0	0	0	0	0	0	0	0	0	0	0	5
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0

Monthly Incident Counts

Report Period: 2014

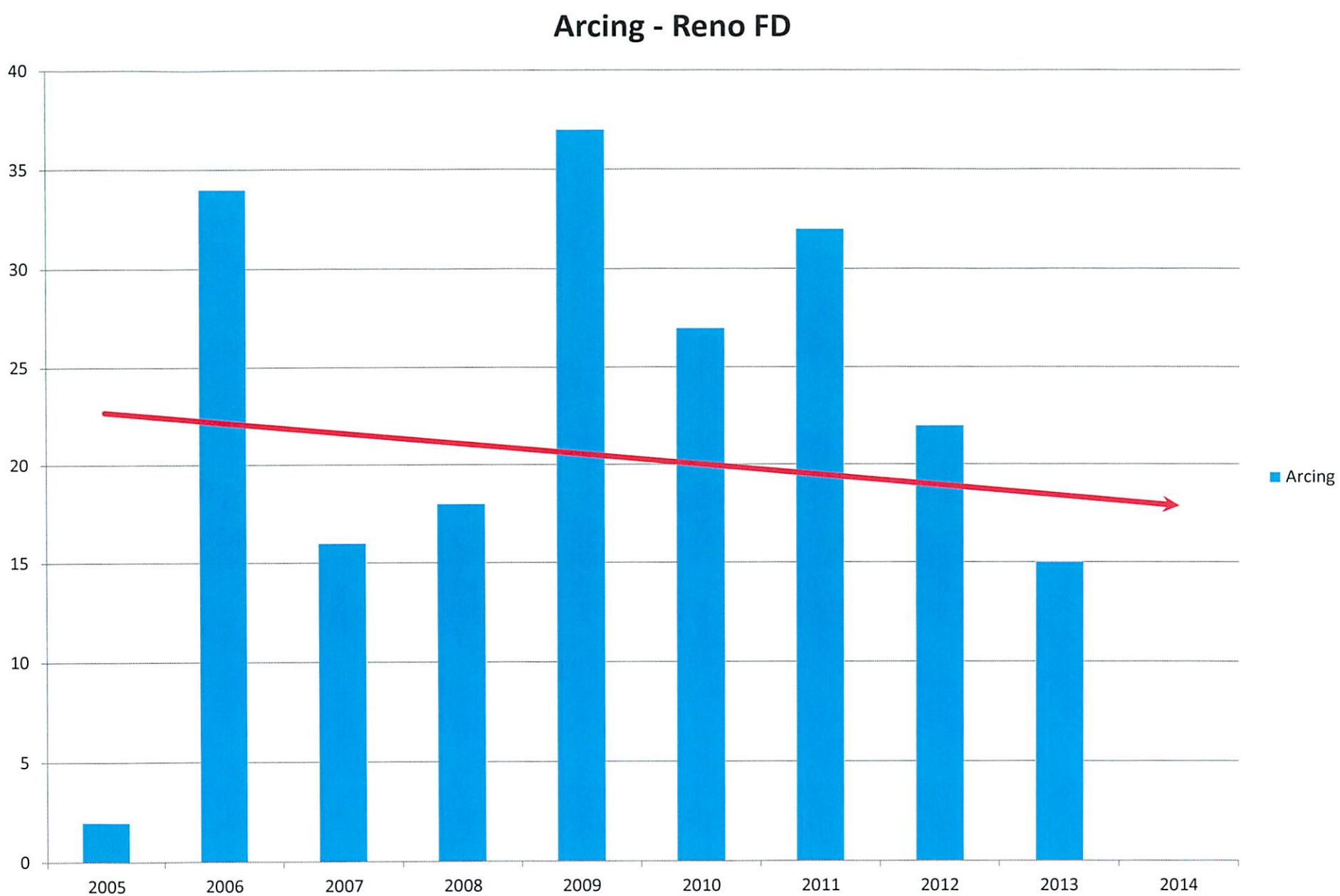
FDID	FD Name												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Total
08000	WINNEMUCCA VOLUNTEER FIRE DEPT												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
09003	Yomba/Reese River Valley FD												
Count	0	0	0	0	0	0	0	0	0	0	0	0	0
Exposures	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Totals													
Count	5,892	11,860	13,391	10,035	10,888	8,132	1,413	1,445	1	0	0	0	63,057
Exposures	0	3	1	2	0	4	3	3	0	0	0	0	16
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0
Aid Given	289	136	129	89	134	131	89	45	0	0	0	0	1,042

ATTACHMENT A.2

NFIRS Data

City of Reno
Calendar Years 2005—2014

Retrieved from the National Data Center on
September 26, 2014


Arcing - Reno FD
40
35
30
25
20
15
10
5
0
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Arcing

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2005 to 12/31/2005

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16001

RENO

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2005 to 12/31/2005

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	3	4.55 %	0	8.00	0.00	0.00	3.00	0.00	0.00	5.91	17.73	7.00
10	Heat from powered equipment, other	5	7.58 %	0	3.20	0.80	0.00	0.80	0.20	0.00	1.13	5.67	5.60
11	Spark, ember or flame from operating equipment	2	3.03 %	0	4.00	0.00	0.00	1.00	0.00	0.00	1.03	2.07	4.00
12	Radiated, conducted heat from operating equipment	11	16.67 %	0	7.09	0.00	0.00	2.73	0.00	0.00	4.21	46.30	6.91
13	Arcing	2	3.03 %	0	2.00	0.00	0.00	1.00	0.00	0.00	0.33	0.67	6.50
40	Hot or smoldering object, other	3	4.55 %	0	3.67	0.00	0.00	1.00	0.00	0.00	1.27	3.82	6.00
41	Heat, spark from friction	2	3.03 %	0	4.00	0.00	0.00	1.00	0.00	0.00	2.93	5.87	5.50
43	Hot ember or ash	1	1.52 %	0	22.00	0.00	0.00	7.00	0.00	0.00	33.37	33.37	7.00
56	Incendiary device	2	3.03 %	0	4.00	0.00	0.00	1.00	0.00	0.00	4.00	8.00	7.50
61	Cigarette	1	1.52 %	0	0.00	16.00	0.00	0.00	7.00	0.00	7.20	7.20	7.00
64	Match	1	1.52 %	0	16.00	0.00	0.00	5.00	0.00	0.00	22.67	22.67	7.00
65	Cigarette lighter	1	1.52 %	0	18.00	0.00	0.00	7.00	0.00	0.00	31.50	31.50	6.00
66	Candle	1	1.52 %	0	18.00	0.00	0.00	7.00	0.00	0.00	5.10	5.10	8.00
70	Chemical, natural heat source, other	1	1.52 %	0	3.00	0.00	0.00	1.00	0.00	0.00	0.75	0.75	6.00
71	Sunlight	1	1.52 %	0	4.00	0.00	0.00	1.00	0.00	0.00	0.93	0.93	8.00
72	Chemical reaction	1	1.52 %	0	21.00	0.00	0.00	8.00	0.00	0.00	15.05	15.05	8.00
97	Multiple heat sources including multiple ignitions	2	3.03 %	0	17.00	0.00	0.00	7.00	0.00	0.00	14.33	28.67	7.50

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2005 to 12/31/2005

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
UU	Undetermined	26	39.39 %	0	4.96	0.38	0.00	2.04	0.23	0.00	4.44	115.38	7.54
	Totals	66	100.00 %	0	6.39	0.45	0.00	2.38	0.21	0.00	5.31	350.73	6.94
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2006 to 12/31/2006

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16001

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2006 to 12/31/2006

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	13	3.59 %	0	10.69	0.00	0.00	4.00	0.00	0.00	16.31	212.02	5.85
10	Heat from powered equipment, other	38	10.50 %	0	11.58	0.47	0.00	4.26	0.18	0.00	34.18	1,298.93	6.21
11	Spark, ember or flame from operating equipment	34	9.39 %	0	8.15	0.53	0.00	3.32	0.21	0.00	10.09	342.90	8.00
12	Radiated, conducted heat from operating equipment	32	8.84 %	0	13.62	0.12	0.00	5.16	0.03	0.00	10.65	340.87	7.69
13	Arcing	34	9.39 %	0	7.85	0.24	0.00	2.74	0.06	0.00	10.94	371.83	6.21
40	Hot or smoldering object, other	15	4.14 %	0	10.93	0.00	0.00	4.13	0.00	0.00	14.66	219.88	8.13
41	Heat, spark from friction	8	2.21 %	0	3.50	0.00	0.00	1.88	0.00	0.00	2.11	16.87	7.12
42	Molten, hot material	1	0.28 %	0	22.00	0.00	0.00	8.00	0.00	0.00	24.93	24.93	6.00
43	Hot ember or ash	13	3.59 %	0	12.69	1.38	0.00	5.15	0.54	0.00	17.45	226.88	6.54
51	Munitions	1	0.28 %	0	4.00	0.00	0.00	1.00	0.00	0.00	2.80	2.80	20.00
56	Incendiary device	6	1.66 %	0	3.83	0.00	0.00	1.17	0.00	0.00	4.04	24.27	10.33
60	Heat from other open flame or smoking materials	6	1.66 %	0	13.67	0.00	0.00	4.83	0.00	0.00	19.06	114.33	8.33
61	Cigarette	9	2.49 %	0	15.00	0.00	0.00	5.67	0.00	0.00	30.30	272.67	7.11
62	Pipe or cigar	1	0.28 %	0	17.00	0.00	0.00	7.00	0.00	0.00	11.62	11.62	7.00
63	Heat from undetermined smoking material	7	1.93 %	0	8.43	3.14	0.00	3.71	0.86	0.00	29.66	207.62	8.00
64	Match	5	1.38 %	0	11.60	0.00	0.00	4.80	0.00	0.00	22.17	110.83	9.20
65	Cigarette lighter	1	0.28 %	0	4.00	0.00	0.00	1.00	0.00	0.00	1.53	1.53	6.00

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2006 to 12/31/2006

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
66	Candle	4	1.10 %	0	14.50	3.00	0.00	5.50	1.25	0.00	19.45	77.80	6.00
68	Backfire from internal combustion engine	4	1.10 %	0	5.50	0.75	0.00	3.50	0.50	0.00	4.03	16.13	5.50
69	Flame/torch used for lighting	1	0.28 %	0	4.00	0.00	0.00	1.00	0.00	0.00	1.80	1.80	6.00
72	Chemical reaction	1	0.28 %	0	22.00	0.00	0.00	8.00	0.00	0.00	51.33	51.33	7.00
82	Radiated heat from another fire	0	0.00 %	1									
97	Multiple heat sources including multiple ignitions	2	0.55 %	0	4.00	0.00	0.00	1.00	0.00	0.00	1.23	2.47	6.00
UU	Undetermined	126	34.81 %	0	10.10	0.25	0.00	3.79	0.08	0.00	18.37	2,314.92	7.38
	Totals	362	100.00 %	1	10.24	0.37	0.00	3.89	0.13	0.00	17.31	6,265.23	7.25
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2007 to 12/31/2007

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16001

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2007 to 12/31/2007

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	17	5.57 %	0	14.06	1.29	0.00	5.24	0.47	0.00	22.55	383.33	7.65
10	Heat from powered equipment, other	40	13.11 %	0	9.08	0.10	0.00	3.45	0.02	0.00	15.82	632.67	8.18
11	Spark, ember or flame from operating equipment	31	10.16 %	0	7.52	0.52	0.00	2.81	0.16	0.00	7.71	239.15	6.71
12	Radiated, conducted heat from operating equipment	24	7.87 %	0	9.62	0.17	0.00	3.54	0.04	0.04	10.31	247.52	6.38
13	Arcing	16	5.25 %	0	13.19	0.00	0.00	5.00	0.00	0.00	25.91	414.63	8.31
40	Hot or smoldering object, other	14	4.59 %	0	13.07	0.00	0.00	4.29	0.21	0.00	39.01	546.15	6.93
41	Heat, spark from friction	2	0.66 %	0	11.00	0.00	0.00	4.00	0.00	0.00	6.52	13.03	11.00
42	Molten, hot material	2	0.66 %	0	20.50	0.00	0.00	7.50	0.00	0.00	53.28	106.55	4.50
43	Hot ember or ash	15	4.92 %	0	15.40	0.00	1.20	6.33	0.00	0.40	27.01	405.20	7.27
56	Incendiary device	2	0.66 %	0	11.00	0.00	0.00	4.00	0.00	0.00	11.98	23.97	6.00
60	Heat from other open flame or smoking materials	8	2.62 %	0	11.00	0.00	0.00	3.75	0.00	0.00	15.35	122.78	6.50
61	Cigarette	3	0.98 %	0	19.33	0.00	0.00	7.33	0.00	0.00	18.67	56.02	4.67
63	Heat from undetermined smoking material	1	0.33 %	0	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00
64	Match	6	1.97 %	0	17.83	0.00	0.00	6.67	0.00	0.00	32.77	196.63	5.83
65	Cigarette lighter	2	0.66 %	0	20.50	0.00	0.00	7.50	0.00	0.00	13.61	27.22	7.00
66	Candle	4	1.31 %	0	19.25	0.00	0.00	6.25	0.00	0.00	26.15	104.60	8.00
68	Backfire from internal combustion engine	1	0.33 %	0	4.00	0.00	0.00	1.00	0.00	0.00	0.93	0.93	7.00

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2007 to 12/31/2007

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
69	Flame/torch used for lighting	1	0.33 %	0	4.00	0.00	0.00	1.00	0.00	0.00	4.33	4.33	7.00
97	Multiple heat sources including multiple ignitions	3	0.98 %	0	16.33	0.00	0.00	5.67	0.00	0.00	26.24	78.72	7.33
UU	Undetermined	113	37.05 %	0	10.93	0.45	0.00	4.20	0.16	0.00	20.04	2,264.37	7.84
Totals		305	100.00 %	0	11.28	0.32	0.06	4.24	0.12	0.02	19.24	5,867.80	7.44
Mutual Aid Given Incidents		0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2008 to 12/31/2008

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16001

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2008 to 12/31/2008

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	22	6.11 %	0	10.64	0.00	0.00	3.73	0.00	0.00	8.99	197.85	6.59
10	Heat from powered equipment, other	53	14.72 %	0	8.36	0.15	0.00	2.83	0.04	0.00	5.15	273.07	7.75
11	Spark, ember or flame from operating equipment	12	3.33 %	0	7.00	0.00	0.00	2.17	0.00	0.00	2.19	26.28	6.25
12	Radiated, conducted heat from operating equipment	27	7.50 %	0	8.67	0.00	0.00	2.85	0.00	0.00	5.60	151.08	7.26
13	Arcing	18	5.00 %	0	8.44	0.00	0.00	2.89	0.00	0.00	6.28	113.05	8.56
40	Hot or smoldering object, other	25	6.94 %	0	11.00	0.96	0.00	4.04	0.32	0.00	14.41	360.27	8.20
41	Heat, spark from friction	3	0.83 %	0	10.33	0.00	0.00	3.33	0.00	0.00	12.66	37.97	7.00
42	Molten, hot material	4	1.11 %	0	11.50	0.00	0.00	4.00	0.00	0.00	4.17	16.67	7.00
43	Hot ember or ash	18	5.00 %	0	15.17	0.22	0.00	5.50	0.06	0.00	17.01	306.22	7.83
56	Incendiary device	5	1.39 %	0	10.00	0.00	0.00	3.80	0.00	0.00	18.57	92.87	5.20
60	Heat from other open flame or smoking materials	15	4.17 %	0	11.93	0.53	0.00	4.13	0.13	0.00	19.22	288.23	6.80
61	Cigarette	5	1.39 %	0	15.40	0.00	0.00	5.60	0.00	0.00	11.95	59.73	6.60
63	Heat from undetermined smoking material	5	1.39 %	0	11.40	0.00	0.00	4.20	0.00	0.00	17.24	86.18	7.40
64	Match	3	0.83 %	0	4.00	0.00	0.00	1.00	0.00	0.00	1.42	4.27	12.00
66	Candle	6	1.67 %	0	16.83	0.00	0.00	5.67	0.00	0.00	21.51	129.03	6.17
68	Backfire from internal combustion engine	3	0.83 %	0	6.67	0.00	0.00	1.67	0.00	0.00	3.29	9.87	6.00
69	Flame/torch used for lighting	2	0.56 %	0	11.50	0.00	0.00	4.00	0.00	0.00	4.57	9.13	6.50

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2008 to 12/31/2008

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
70	Chemical, natural heat source, other	2	0.56 %	0	4.00	0.00	0.00	1.00	0.00	0.00	2.63	5.27	7.50
74	Other static discharge	1	0.28 %	0	4.00	0.00	0.00	1.00	0.00	0.00	1.93	1.93	6.00
97	Multiple heat sources including multiple ignitions	7	1.94 %	0	8.57	1.14	0.00	3.71	0.29	0.00	17.23	120.60	8.43
UU	Undetermined	124	34.44 %	0	10.76	0.35	0.00	3.83	0.15	0.00	21.76	2,698.15	7.69
	Totals	360	100.00 %	0	10.27	0.26	0.00	3.60	0.09	0.00	13.85	4,987.72	7.53
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2009 to 12/31/2009

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16001

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2009 to 12/31/2009

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	28	5.97 %	0	16.29	0.00	0.00	6.89	0.04	0.00	84.34	2,361.55	7.86
10	Heat from powered equipment, other	63	13.43 %	0	9.57	0.63	0.00	3.35	0.22	0.00	6.25	394.00	8.03
11	Spark, ember or flame from operating equipment	26	5.54 %	0	13.35	1.00	0.00	5.15	0.42	0.00	711.65	18,502.98	1,724.50
12	Radiated, conducted heat from operating equipment	54	11.51 %	0	12.46	0.15	0.00	4.54	0.07	0.00	11.75	634.38	7.54
13	Arcing	37	7.89 %	0	11.38	0.22	0.22	4.24	0.14	0.08	20.15	745.62	6.89
40	Hot or smoldering object, other	19	4.05 %	0	13.79	0.42	0.00	4.84	0.11	0.00	13.51	256.63	7.21
41	Heat, spark from friction	6	1.28 %	0	6.17	0.00	0.00	2.17	0.00	0.00	8.38	50.25	9.50
42	Molten, hot material	3	0.64 %	0	5.33	0.00	0.00	1.33	0.00	0.00	1.69	5.07	3.67
43	Hot ember or ash	23	4.90 %	0	13.09	0.39	0.00	5.39	0.22	0.00	12.40	285.13	7.74
50	Explosive, fireworks, other	1	0.21 %	0	20.00	0.00	0.00	9.00	0.00	0.00	84.33	84.33	17.00
56	Incendiary device	7	1.49 %	0	11.71	0.00	0.00	4.86	0.00	0.00	31.96	223.73	12.43
60	Heat from other open flame or smoking materials	15	3.20 %	0	11.53	0.27	0.00	4.40	0.07	0.00	10.20	152.93	7.53
61	Cigarette	12	2.56 %	0	14.58	0.00	0.00	5.75	0.08	0.00	20.01	240.08	6.92
62	Pipe or cigar	1	0.21 %	0	17.00	0.00	0.00	6.00	0.00	0.00	6.80	6.80	6.00
63	Heat from undetermined smoking material	1	0.21 %	0	4.00	0.00	0.00	1.00	0.00	0.00	6.67	6.67	11.00
64	Match	15	3.20 %	0	8.60	0.27	0.00	3.67	0.07	0.00	8.68	130.20	8.60
65	Cigarette lighter	7	1.49 %	0	14.14	0.00	0.00	5.71	0.00	0.00	20.08	140.57	6.71

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2009 to 12/31/2009

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
66	Candle	8	1.71 %	0	14.38	0.50	0.00	5.88	0.12	0.00	23.31	186.47	9.25
67	Warning or road flare; fusee	1	0.21 %	0	34.00	0.00	0.00	16.00	0.00	0.00	300.33	300.33	6.00
68	Backfire from internal combustion engine	3	0.64 %	0	5.67	0.00	0.00	1.33	0.00	0.00	1.27	3.80	5.67
69	Flame/torch used for lighting	3	0.64 %	0	15.33	0.00	0.00	5.00	0.00	0.00	3.47	10.40	6.67
70	Chemical, natural heat source, other	3	0.64 %	0	13.33	0.33	0.00	7.33	0.33	0.00	75.87	227.62	21.33
71	Sunlight	1	0.21 %	0	14.00	0.00	0.00	8.00	0.00	0.00	7.00	7.00	7.00
72	Chemical reaction	3	0.64 %	0	9.67	7.00	0.00	4.67	3.00	0.00	52.53	157.58	15.00
80	Heat spread from another fire, other	2	0.43 %	0	18.50	0.00	0.00	10.00	0.00	0.00	91.42	182.83	6.00
81	Heat from direct flame, convection currents	6	1.28 %	0	15.67	4.00	0.00	6.33	1.50	0.00	34.58	207.50	7.83
82	Radiated heat from another fire	1	0.21 %	0	21.00	0.00	0.00	9.00	0.00	0.00	86.80	86.80	8.00
84	Conducted heat from another fire	1	0.21 %	0	17.00	0.00	0.00	8.00	0.00	0.00	32.30	32.30	3.00
97	Multiple heat sources including multiple ignitions	11	2.35 %	0	4.82	0.36	0.00	1.73	0.18	0.00	6.70	73.70	15.18
UU	Undetermined	108	23.03 %	0	10.86	0.62	0.00	4.26	0.22	0.00	23.27	2,513.20	8.82
Totals		469	100.00 %	0	11.74	0.49	0.02	4.55	0.19	0.01	60.15	28,210.47	103.46
Mutual Aid Given Incidents		1											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2010 to 12/31/2010

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16001

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2010 to 12/31/2010

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	24	5.80 %	0	9.92	0.75	0.00	3.58	0.33	0.00	9.53	228.68	7.08
10	Heat from powered equipment, other	67	16.18 %	0	11.54	0.81	0.00	4.18	0.25	0.00	10.60	710.42	7.18
11	Spark, ember or flame from operating equipment	22	5.31 %	0	12.09	0.91	0.00	4.23	0.32	0.00	15.06	331.40	8.73
12	Radiated, conducted heat from operating equipment	33	7.97 %	0	11.67	0.70	0.00	4.12	0.15	0.00	14.32	472.43	6.30
13	Arcing	27	6.52 %	0	12.85	0.00	0.00	4.74	0.00	0.00	18.55	500.78	8.93
40	Hot or smoldering object, other	35	8.45 %	0	10.86	1.06	0.00	4.06	0.34	0.00	11.34	396.90	6.83
41	Heat, spark from friction	5	1.21 %	0	8.00	0.80	0.00	2.80	0.40	0.00	5.13	25.67	10.60
43	Hot ember or ash	17	4.11 %	0	11.76	0.00	0.00	4.71	0.00	0.00	14.67	249.37	11.59
54	Fireworks	1	0.24 %	0	27.00	0.00	0.00	11.00	0.00	0.00	36.45	36.45	7.00
56	Incendiary device	1	0.24 %	0	4.00	21.00	0.00	1.00	12.00	0.00	252.92	252.92	21.00
60	Heat from other open flame or smoking materials	17	4.11 %	0	8.59	1.00	0.06	3.06	0.35	0.06	6.16	104.70	8.47
61	Cigarette	9	2.17 %	0	16.56	0.89	0.00	6.11	0.44	0.00	29.06	261.50	10.33
63	Heat from undetermined smoking material	8	1.93 %	0	10.62	0.50	0.00	4.12	0.25	0.38	23.29	186.35	9.62
64	Match	15	3.62 %	0	9.60	0.27	0.00	3.80	0.07	0.00	6.71	100.70	7.67
65	Cigarette lighter	6	1.45 %	0	9.83	0.67	0.00	3.50	0.33	0.00	13.94	83.67	7.83
66	Candle	4	0.97 %	0	21.50	0.25	0.00	8.25	0.25	0.00	81.50	326.02	4.25
68	Backfire from internal combustion engine	3	0.72 %	0	8.00	0.00	0.00	3.00	0.00	0.00	8.89	26.67	7.67

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2010 to 12/31/2010

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
70	Chemical, natural heat source, other	4	0.97 %	0	9.50	2.00	0.00	3.75	0.50	0.00	8.38	33.50	6.50
71	Sunlight	1	0.24 %	0	0.00	24.00	0.00	0.00	8.00	0.00	9.60	9.60	5.00
72	Chemical reaction	2	0.48 %	0	12.50	0.00	0.00	4.00	0.00	0.00	5.45	10.90	7.00
74	Other static discharge	1	0.24 %	0	4.00	0.00	0.00	1.00	0.00	0.00	0.60	0.60	7.00
80	Heat spread from another fire, other	1	0.24 %	0	8.00	0.00	0.00	2.00	0.00	0.00	5.33	5.33	6.00
81	Heat from direct flame, convection currents	13	3.14 %	0	12.15	0.31	0.00	4.38	0.08	0.00	11.17	145.23	6.69
83	Flying brand, ember, spark	1	0.24 %	0	21.00	0.00	0.00	11.00	0.00	0.00	77.00	77.00	7.00
84	Conducted heat from another fire	5	1.21 %	0	15.80	0.80	0.00	6.80	0.20	0.00	11.42	57.10	9.40
97	Multiple heat sources including multiple ignitions	10	2.42 %	0	8.60	0.00	0.00	3.10	0.00	0.00	24.94	249.43	6.10
UU	Undetermined	82	19.81 %	0	11.04	0.24	0.01	4.33	0.09	0.01	22.07	1,809.93	7.38
Totals		414	100.00 %	0	11.30	0.66	0.00	4.21	0.24	0.01	16.17	6,693.25	7.71
Mutual Aid Given Incidents		0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2011 to 12/31/2011

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16001

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2011 to 12/31/2011

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	29	6.17 %	0	13.72	0.14	0.00	5.28	0.07	0.00	12.99	376.75	6.69
10	Heat from powered equipment, other	62	13.19 %	0	10.76	0.02	0.00	3.61	0.02	0.00	9.70	601.30	6.68
11	Spark, ember or flame from operating equipment	22	4.68 %	0	13.00	0.82	0.00	4.45	0.32	0.00	19.17	421.72	8.36
12	Radiated, conducted heat from operating equipment	63	13.40 %	0	11.46	0.81	0.00	4.13	0.27	0.00	15.51	977.15	7.46
13	Arcing	32	6.81 %	0	12.56	0.78	0.03	4.44	0.22	0.03	14.34	458.90	7.19
40	Hot or smoldering object, other	31	6.60 %	0	11.77	0.68	0.00	4.65	0.26	0.00	21.24	658.47	7.94
41	Heat, spark from friction	4	0.85 %	0	6.00	0.00	0.00	2.25	0.25	0.00	2.41	9.63	7.75
42	Molten, hot material	7	1.49 %	0	12.00	1.00	0.00	4.57	0.29	0.00	7.57	53.00	6.86
43	Hot ember or ash	21	4.47 %	0	14.57	0.19	0.00	5.24	0.05	0.00	22.28	467.83	7.38
50	Explosive, fireworks, other	1	0.21 %	0	8.00	0.00	0.00	3.00	0.00	0.00	4.53	4.53	15.00
54	Fireworks	1	0.21 %	0	13.00	0.00	0.00	6.00	0.00	0.00	13.00	13.00	10.00
56	Incendiary device	1	0.21 %	0	9.00	0.00	0.00	6.00	0.00	0.00	3.00	3.00	8.00
60	Heat from other open flame or smoking materials	14	2.98 %	0	9.50	0.00	0.00	3.36	0.00	0.00	7.05	98.67	8.21
61	Cigarette	19	4.04 %	0	15.53	1.53	0.00	5.84	0.47	0.05	22.82	433.67	7.47
63	Heat from undetermined smoking material	4	0.85 %	0	12.00	0.00	0.00	4.25	0.00	0.00	16.57	66.27	6.50
64	Match	10	2.13 %	0	8.60	0.40	0.00	3.30	0.10	0.00	12.01	120.12	11.60
65	Cigarette lighter	7	1.49 %	0	10.71	2.29	0.00	3.71	0.86	0.00	20.46	143.25	7.43

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2011 to 12/31/2011

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
66	Candle	2	0.43 %	0	21.00	0.00	0.00	9.00	0.00	0.00	42.58	85.17	5.00
69	Flame/torch used for lighting	4	0.85 %	0	13.75	0.00	0.00	5.75	0.00	0.00	17.06	68.25	9.25
72	Chemical reaction	1	0.21 %	0	16.00	0.00	0.00	6.00	0.00	0.00	36.53	36.53	8.00
73	Lightning	1	0.21 %	0	4.00	20.00	0.00	1.00	9.00	0.00	36.00	36.00	11.00
74	Other static discharge	1	0.21 %	0	4.00	0.00	0.00	2.00	0.00	0.00	17.33	17.33	3.00
80	Heat spread from another fire, other	5	1.06 %	40	14.00	0.00	0.00	5.60	0.20	0.00	14.63	73.17	10.20
81	Heat from direct flame, convection currents	12	2.55 %	0	10.83	0.33	0.00	3.42	0.08	0.00	7.71	92.47	7.92
82	Radiated heat from another fire	1	0.21 %	0	16.00	0.00	0.00	5.00	0.00	0.00	6.40	6.40	7.00
84	Conducted heat from another fire	3	0.64 %	0	13.67	1.33	0.00	4.67	0.33	0.00	10.85	32.55	6.33
97	Multiple heat sources including multiple ignitions	5	1.06 %	0	9.40	0.00	0.00	5.00	0.00	0.00	17.67	88.37	19.80
UU	Undetermined	107	22.77 %	0	10.71	0.45	0.01	3.91	0.18	0.01	26.97	2,885.38	7.65
	Totals	470	100.00 %	40	11.69	0.54	0.00	4.26	0.20	0.01	17.72	8,328.87	7.69
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2012 to 12/31/2012

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16001

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2012 to 12/31/2012

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	24	6.27 %	0	12.38	0.88	0.00	4.83	0.29	0.00	19.10	458.32	8.58
10	Heat from powered equipment, other	51	13.32 %	0	12.94	0.47	0.00	4.43	0.18	0.00	13.39	683.13	7.14
11	Spark, ember or flame from operating equipment	13	3.39 %	0	12.00	0.00	0.00	4.46	0.15	0.00	15.74	204.57	9.77
12	Radiated, conducted heat from operating equipment	30	7.83 %	0	12.27	2.17	0.00	4.17	0.73	0.00	16.39	491.73	6.23
13	Arcing	22	5.74 %	0	12.64	0.36	0.00	5.05	0.09	0.00	51.53	1,133.68	8.32
40	Hot or smoldering object, other	17	4.44 %	0	16.35	0.00	0.00	5.76	0.00	0.00	20.79	353.50	5.71
41	Heat, spark from friction	6	1.57 %	0	6.67	0.00	0.00	2.00	0.00	0.00	4.02	24.13	7.83
42	Molten, hot material	2	0.52 %	0	14.00	0.00	0.00	5.00	0.00	0.00	4.13	8.27	8.50
43	Hot ember or ash	20	5.22 %	0	14.95	0.00	0.00	6.10	0.00	0.00	22.36	447.25	8.00
56	Incendiary device	5	1.31 %	0	7.60	0.80	0.00	2.60	0.20	0.00	5.99	29.97	7.40
60	Heat from other open flame or smoking materials	16	4.18 %	0	11.31	0.94	0.25	3.75	0.50	0.06	14.72	235.60	8.62
61	Cigarette	10	2.61 %	0	16.80	0.40	0.00	6.40	0.20	0.00	38.73	387.32	6.40
63	Heat from undetermined smoking material	3	0.78 %	0	11.67	1.67	0.00	6.67	0.67	0.00	289.97	869.92	23.67
64	Match	5	1.31 %	0	3.80	0.00	0.00	1.00	0.00	0.00	3.77	18.83	12.60
65	Cigarette lighter	9	2.35 %	0	15.56	1.89	0.00	5.33	0.89	0.00	39.22	352.98	6.56
66	Candle	4	1.04 %	0	14.00	4.25	0.00	5.00	1.75	0.00	19.34	77.35	6.50
68	Backfire from internal combustion engine	1	0.26 %	0	4.00	0.00	0.00	1.00	0.00	0.00	0.80	0.80	6.00

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2012 to 12/31/2012

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
70	Chemical, natural heat source, other	1	0.26 %	0	4.00	0.00	0.00	1.00	0.00	0.00	2.60	2.60	6.00
72	Chemical reaction	2	0.52 %	0	13.00	0.00	0.00	4.50	0.00	0.00	45.05	90.10	6.00
80	Heat spread from another fire, other	2	0.52 %	2	12.00	0.00	0.00	6.00	0.00	0.00	33.10	66.20	8.00
81	Heat from direct flame, convection currents	6	1.57 %	0	13.50	1.33	0.00	4.67	0.33	0.00	15.88	95.30	6.00
82	Radiated heat from another fire	1	0.26 %	0	17.00	0.00	0.00	6.00	0.00	0.00	3.68	3.68	8.00
83	Flying brand, ember, spark	1	0.26 %	0	16.00	0.00	0.00	7.00	0.00	0.00	37.87	37.87	11.00
97	Multiple heat sources including multiple ignitions	8	2.09 %	0	11.38	1.12	0.00	4.62	0.75	0.00	47.05	376.43	8.75
UU	Undetermined	124	32.38 %	0	10.41	0.32	0.00	4.09	0.15	0.00	21.23	2,632.45	8.86
	Totals	383	100.00 %	2	12.00	0.62	0.01	4.48	0.25	0.00	23.71	9,081.98	8.12
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2013 to 12/31/2013

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16001

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2013 to 12/31/2013

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	11	4.17 %	0	10.55	0.00	0.00	3.73	0.00	0.00	18.00	198.05	7.09
10	Heat from powered equipment, other	41	15.53 %	0	13.78	0.00	0.00	4.73	0.02	0.00	20.72	849.47	6.51
11	Spark, ember or flame from operating equipment	12	4.55 %	0	12.08	0.00	0.00	4.25	0.00	0.00	12.50	149.97	6.67
12	Radiated, conducted heat from operating equipment	24	9.09 %	0	9.67	0.00	0.00	3.12	0.00	0.00	8.46	203.10	6.75
13	Arcing	15	5.68 %	0	11.20	0.00	0.00	3.80	0.00	0.00	16.05	240.78	5.60
40	Hot or smoldering object, other	15	5.68 %	0	11.40	0.00	0.00	4.00	0.00	0.00	22.28	334.20	6.73
41	Heat, spark from friction	3	1.14 %	0	9.00	0.00	0.00	3.00	0.00	0.00	12.93	38.80	8.00
43	Hot ember or ash	8	3.03 %	0	14.38	0.00	0.00	5.12	0.12	0.00	10.57	84.57	6.38
56	Incendiary device	3	1.14 %	0	4.00	0.00	0.00	1.00	0.00	0.00	2.40	7.20	7.67
60	Heat from other open flame or smoking materials	9	3.41 %	0	20.33	1.11	0.00	7.56	0.44	0.00	57.58	518.23	7.00
61	Cigarette	9	3.41 %	0	17.67	0.00	0.00	6.56	0.00	0.00	23.30	209.68	7.33
63	Heat from undetermined smoking material	5	1.89 %	0	15.00	0.00	0.00	6.00	0.00	0.00	78.72	393.58	7.20
64	Match	4	1.52 %	0	8.25	0.00	0.00	3.75	0.00	0.00	13.50	54.00	5.75
65	Cigarette lighter	3	1.14 %	0	21.33	0.00	0.00	8.33	0.00	0.00	85.54	256.63	7.33
66	Candle	3	1.14 %	0	24.00	0.00	0.00	8.67	0.00	0.00	59.06	177.17	5.67
68	Backfire from internal combustion engine	1	0.38 %	0	4.00	0.00	0.00	1.00	0.00	0.00	3.53	3.53	7.00
69	Flame/torch used for lighting	2	0.76 %	0	11.00	0.00	0.00	4.00	0.00	0.00	15.55	31.10	4.00

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2014 to 09/26/2014

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16001

RENO

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2014 to 09/26/2014

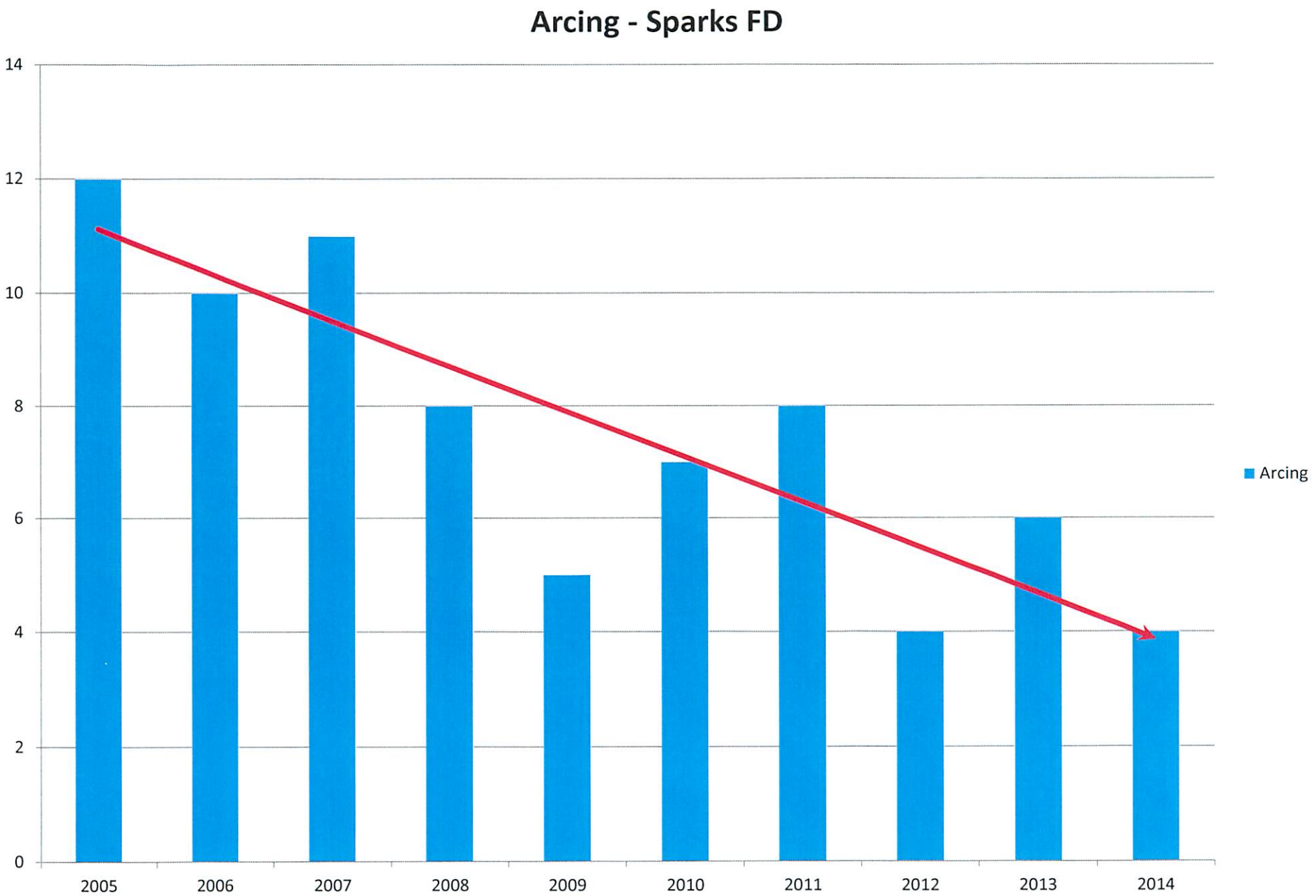
THERE WAS NO DATA RETURNED FOR THIS REPORT REQUEST.
It is likely that the parameter range is too narrow. Please check your parameters and resubmit the report (if necessary).

ATTACHMENT A.3

NFIRS Data

City of Sparks
Calendar Years 2005—2014

Retrieved from the National Data Center on
September 26, 2014


Arcing - Sparks FD
14
12
10
8
6
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2
0
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
Arcing

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2005 to 12/31/2005

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16002

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2005 to 12/31/2005

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	5	5.00 %	1	4.60	0.00	0.00	1.60	0.00	0.00	2.64	13.22	5.80
10	Heat from powered equipment, other	16	16.00 %	0	10.31	0.00	0.00	3.62	0.00	0.06	18.93	302.92	4.25
11	Spark, ember or flame from operating equipment	7	7.00 %	0	6.43	0.00	0.00	1.71	0.00	0.00	2.34	16.37	5.71
12	Radiated, conducted heat from operating equipment	14	14.00 %	0	7.14	0.00	0.00	2.64	0.00	0.00	7.90	110.63	5.29
13	Arcing	12	12.00 %	0	8.33	0.00	0.00	3.00	0.00	0.00	11.99	143.93	4.58
40	Hot or smoldering object, other	1	1.00 %	0	15.00	0.00	0.00	5.00	0.00	0.00	13.00	13.00	3.00
42	Molten, hot material	1	1.00 %	0	16.00	0.00	0.00	5.00	0.00	0.00	10.40	10.40	7.00
43	Hot ember or ash	2	2.00 %	0	10.00	0.00	0.00	4.00	0.00	0.00	22.48	44.95	5.00
60	Heat from other open flame or smoking materials	1	1.00 %	0	5.00	0.00	0.00	2.00	0.00	0.00	7.58	7.58	9.00
61	Cigarette	2	2.00 %	0	20.50	0.00	1.50	7.00	0.00	1.50	101.96	203.92	5.00
64	Match	1	1.00 %	0	17.00	0.00	0.00	6.00	0.00	0.00	24.65	24.65	5.00
66	Candle	1	1.00 %	0	13.00	0.00	0.00	6.00	0.00	0.00	44.20	44.20	6.00
68	Backfire from internal combustion engine	2	2.00 %	0	3.50	0.00	0.00	1.00	0.00	0.00	1.19	2.38	4.50
69	Flame/torch used for lighting	1	1.00 %	0	4.00	0.00	0.00	2.00	0.00	0.00	1.67	1.67	5.00
73	Lightning	2	2.00 %	0	14.50	0.00	0.00	6.50	0.00	0.00	21.08	42.17	5.50
82	Radiated heat from another fire	0	0.00 %	2									
UU	Undetermined	32	32.00 %	1	7.09	0.00	0.16	2.56	0.00	0.06	10.58	338.57	5.06

Totals	100	100.00 %	4	8.27	0.00	0.08	2.96	0.00	0.06	13.21	1,320.55	5.03
Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2006 to 12/31/2006

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16002

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2006 to 12/31/2006

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	8	6.96 %	2	9.75	0.00	0.00	3.62	0.00	0.00	7.95	63.58	5.25
10	Heat from powered equipment, other	8	6.96 %	0	14.62	0.00	0.00	5.25	0.00	0.00	9.68	77.45	4.62
11	Spark, ember or flame from operating equipment	5	4.35 %	0	8.40	0.00	0.00	3.40	0.00	0.00	8.59	42.97	4.40
12	Radiated, conducted heat from operating equipment	16	13.91 %	0	11.38	0.00	0.00	4.44	0.00	0.00	27.09	433.38	4.75
13	Arcing	10	8.70 %	0	8.60	0.00	0.00	3.30	0.00	0.00	15.61	156.10	5.10
40	Hot or smoldering object, other	4	3.48 %	0	7.00	0.00	0.00	2.00	0.00	0.00	4.85	19.40	5.75
41	Heat, spark from friction	3	2.61 %	0	8.00	0.00	0.00	3.00	0.00	0.00	4.64	13.93	5.67
43	Hot ember or ash	1	0.87 %	0	4.00	0.00	0.00	1.00	0.00	0.00	2.00	2.00	7.00
56	Incendiary device	2	1.74 %	0	12.50	0.00	0.00	4.50	0.00	0.00	25.01	50.02	5.00
60	Heat from other open flame or smoking materials	2	1.74 %	0	9.50	0.00	0.00	3.00	0.00	0.00	9.13	18.27	5.50
61	Cigarette	4	3.48 %	1	13.50	0.00	0.00	5.00	0.00	0.00	28.80	115.18	4.50
64	Match	6	5.22 %	1	8.17	0.00	0.00	3.17	0.00	0.00	10.16	60.97	16.33
65	Cigarette lighter	5	4.35 %	1	12.60	0.00	0.00	5.00	0.00	0.00	31.35	156.77	6.00
66	Candle	1	0.87 %	0	17.00	0.00	0.00	5.00	0.00	0.00	12.18	12.18	7.00
68	Backfire from internal combustion engine	2	1.74 %	0	10.00	0.00	0.00	3.00	0.00	0.00	5.03	10.07	5.50
72	Chemical reaction	4	3.48 %	1	16.75	0.00	0.00	7.25	0.00	0.00	31.70	126.80	5.25
74	Other static discharge	1	0.87 %	0	17.00	0.00	0.00	6.00	0.00	0.00	17.00	17.00	5.00

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2006 to 12/31/2006

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
81	Heat from direct flame, convection currents	0	0.00 %	6									
82	Radiated heat from another fire	0	0.00 %	3									
84	Conducted heat from another fire	0	0.00 %	2									
UU	Undetermined	33	28.70 %	2	9.45	0.00	0.03	3.76	0.00	0.03	23.01	759.18	5.09
Totals		115	100.00 %	19	10.47	0.00	0.01	3.99	0.00	0.01	18.57	2,135.25	5.69
Mutual Aid Given Incidents		0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2007 to 12/31/2007

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16002

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2007 to 12/31/2007

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	12	10.91 %	0	9.08	0.00	0.00	4.25	0.00	0.00	23.61	283.32	4.33
10	Heat from powered equipment, other	16	14.55 %	0	11.12	0.00	0.00	3.81	0.00	0.00	13.99	223.87	5.25
11	Spark, ember or flame from operating equipment	7	6.36 %	0	5.14	0.00	0.00	2.00	0.00	0.00	11.79	82.50	4.00
12	Radiated, conducted heat from operating equipment	21	19.09 %	0	11.10	0.00	0.00	3.67	0.00	0.00	13.96	293.20	4.10
13	Arcing	11	10.00 %	0	13.55	0.00	0.00	4.91	0.00	0.00	26.08	286.92	5.36
40	Hot or smoldering object, other	2	1.82 %	0	8.50	0.00	0.00	2.50	0.00	0.00	5.06	10.12	4.50
43	Hot ember or ash	5	4.55 %	0	15.80	0.00	0.00	5.60	0.00	0.00	19.56	97.78	5.20
60	Heat from other open flame or smoking materials	5	4.55 %	0	9.60	0.00	0.00	4.20	0.00	0.00	15.39	76.93	3.80
61	Cigarette	4	3.64 %	0	13.50	0.00	0.00	5.50	0.00	0.00	19.28	77.13	5.25
64	Match	3	2.73 %	0	6.67	0.00	0.33	2.67	0.00	0.33	8.68	26.03	14.33
65	Cigarette lighter	3	2.73 %	0	8.00	0.00	0.00	2.67	0.00	0.00	8.88	26.65	6.33
66	Candle	1	0.91 %	0	16.00	0.00	0.00	8.00	0.00	0.00	76.53	76.53	4.00
69	Flame/torch used for lighting	1	0.91 %	0	9.00	0.00	0.00	7.00	0.00	0.00	64.05	64.05	13.00
80	Heat spread from another fire, other	0	0.00 %	3									
81	Heat from direct flame, convection currents	0	0.00 %	2									
82	Radiated heat from another fire	0	0.00 %	3									
UU	Undetermined	19	17.27 %	4	8.74	0.00	0.00	3.32	0.00	0.05	28.21	536.07	4.63

Totals	110	100.00 %	12	10.35	0.00	0.01	3.88	0.00	0.02	19.65	2,161.10	5.01
Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2008 to 12/31/2008

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16002

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2008 to 12/31/2008

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	13	13.98 %	0	11.38	0.00	0.00	5.23	0.00	0.00	29.65	385.43	4.77
10	Heat from powered equipment, other	11	11.83 %	0	12.82	0.00	0.00	4.73	0.00	0.00	19.20	211.20	4.73
11	Spark, ember or flame from operating equipment	5	5.38 %	0	12.00	0.00	0.00	4.00	0.00	0.00	9.79	48.93	5.40
12	Radiated, conducted heat from operating equipment	13	13.98 %	0	10.46	0.00	0.00	3.54	0.00	0.00	11.47	149.07	6.62
13	Arcing	8	8.60 %	0	10.88	0.00	0.00	4.00	0.00	0.00	17.92	143.40	5.12
40	Hot or smoldering object, other	8	8.60 %	0	14.25	0.00	0.00	5.00	0.00	0.00	21.76	174.10	5.50
41	Heat, spark from friction	1	1.08 %	0	4.00	0.00	0.00	1.00	0.00	0.00	1.20	1.20	6.00
60	Heat from other open flame or smoking materials	1	1.08 %	0	17.00	0.00	0.00	5.00	0.00	0.00	5.95	5.95	4.00
61	Cigarette	2	2.15 %	0	17.00	0.00	0.00	7.00	0.00	0.00	43.93	87.87	5.00
63	Heat from undetermined smoking material	2	2.15 %	0	11.50	0.00	0.00	4.50	0.00	0.00	16.08	32.15	4.00
65	Cigarette lighter	1	1.08 %	0	17.00	0.00	0.00	8.00	0.00	0.00	33.15	33.15	5.00
66	Candle	1	1.08 %	0	16.00	0.00	0.00	9.00	0.00	0.00	71.20	71.20	5.00
69	Flame/torch used for lighting	1	1.08 %	0	5.00	0.00	0.00	2.00	0.00	0.00	10.67	10.67	3.00
74	Other static discharge	1	1.08 %	0	17.00	0.00	0.00	5.00	0.00	0.00	9.92	9.92	5.00
80	Heat spread from another fire, other	0	0.00 %	5									
81	Heat from direct flame, convection currents	0	0.00 %	3									
82	Radiated heat from another fire	0	0.00 %	6									

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2008 to 12/31/2008

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
97	Multiple heat sources including multiple ignitions	0	0.00 %	1									
UU	Undetermined	25	26.88 %	0	10.44	0.00	0.00	3.92	0.00	0.00	14.30	357.45	5.24
Totals		93	100.00 %	15	11.61	0.00	0.00	4.40	0.00	0.00	18.51	1,721.68	5.26
Mutual Aid Given Incidents		0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2009 to 12/31/2009

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16002

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2009 to 12/31/2009

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	6	5.26 %	0	7.50	0.00	0.00	2.67	0.00	0.00	4.10	24.58	6.83
10	Heat from powered equipment, other	13	11.40 %	0	7.31	0.00	0.00	2.62	0.00	0.00	5.65	73.48	5.85
11	Spark, ember or flame from operating equipment	6	5.26 %	0	10.17	0.00	0.00	4.33	0.00	0.00	20.08	120.50	5.83
12	Radiated, conducted heat from operating equipment	12	10.53 %	0	8.08	0.00	0.00	3.17	0.00	0.00	6.98	83.75	5.58
13	Arcing	5	4.39 %	0	9.60	0.00	0.00	5.20	0.00	0.00	23.39	116.95	5.40
40	Hot or smoldering object, other	2	1.75 %	0	5.00	0.00	0.00	1.50	0.00	0.00	4.33	8.67	4.50
41	Heat, spark from friction	1	0.88 %	0	18.00	0.00	0.00	10.00	0.00	0.00	33.60	33.60	9.00
43	Hot ember or ash	4	3.51 %	0	11.25	0.00	0.00	4.50	0.00	0.50	10.32	41.27	5.50
54	Fireworks	1	0.88 %	0	3.00	0.00	0.00	1.00	0.00	0.00	0.50	0.50	4.00
56	Incendiary device	2	1.75 %	0	2.00	0.00	0.00	1.00	0.00	0.00	1.00	2.00	4.50
60	Heat from other open flame or smoking materials	2	1.75 %	0	10.00	0.00	0.00	4.00	0.00	0.00	6.18	12.35	8.00
61	Cigarette	4	3.51 %	0	12.00	0.00	0.00	5.00	0.00	0.00	7.09	28.37	5.00
63	Heat from undetermined smoking material	1	0.88 %	0	18.00	0.00	2.00	8.00	0.00	2.00	55.33	55.33	5.00
64	Match	8	7.02 %	0	7.00	0.00	0.00	3.12	0.00	0.25	9.53	76.23	4.62
65	Cigarette lighter	3	2.63 %	0	6.67	0.00	0.00	2.67	0.00	0.00	7.82	23.45	7.67
67	Warning or road flare; fusee	1	0.88 %	0	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	107.00
69	Flame/torch used for lighting	1	0.88 %	0	14.00	0.00	0.00	7.00	0.00	0.00	48.30	48.30	5.00

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2009 to 12/31/2009

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
71	Sunlight	2	1.75 %	0	3.50	0.00	0.00	1.50	0.00	0.00	3.92	7.85	5.50
72	Chemical reaction	1	0.88 %	0	19.00	0.00	0.00	10.00	0.00	0.00	103.23	103.23	3.00
73	Lightning	1	0.88 %	0	10.00	0.00	0.00	4.00	0.00	0.00	5.17	5.17	5.00
80	Heat spread from another fire, other	1	0.88 %	3	14.00	0.00	0.00	6.00	0.00	0.00	27.30	27.30	7.00
81	Heat from direct flame, convection currents	2	1.75 %	2	8.00	0.00	0.00	3.00	0.00	0.00	2.14	4.28	5.00
82	Radiated heat from another fire	1	0.88 %	7	14.00	0.00	0.00	5.00	0.00	0.00	10.03	10.03	5.00
UU	Undetermined	34	29.82 %	1	10.32	0.00	0.03	4.41	0.00	0.12	28.60	972.23	5.32
Totals		114	100.00 %	13	9.06	0.00	0.03	3.82	0.00	0.09	16.49	1,879.43	6.44
Mutual Aid Given Incidents		0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2010 to 12/31/2010

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16002

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2010 to 12/31/2010

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	4	3.64 %	0	9.75	0.00	0.00	4.00	0.00	0.00	13.63	54.52	5.00
10	Heat from powered equipment, other	13	11.82 %	0	12.23	0.00	0.00	5.08	0.00	0.00	10.56	137.27	4.31
11	Spark, ember or flame from operating equipment	6	5.45 %	1	7.50	0.00	0.00	3.17	0.00	0.00	10.77	64.63	5.00
12	Radiated, conducted heat from operating equipment	16	14.55 %	0	9.81	0.00	0.00	4.62	0.00	0.00	13.89	222.18	5.00
13	Arcing	7	6.36 %	0	9.43	0.00	0.00	4.57	0.00	0.00	32.13	224.92	5.14
40	Hot or smoldering object, other	5	4.55 %	1	7.40	0.00	0.00	3.20	0.00	0.00	10.17	50.85	4.80
41	Heat, spark from friction	1	0.91 %	0	3.00	0.00	0.00	1.00	0.00	0.00	0.90	0.90	4.00
43	Hot ember or ash	2	1.82 %	9	13.00	0.00	0.00	6.50	0.00	0.00	11.27	22.53	5.00
60	Heat from other open flame or smoking materials	1	0.91 %	0	13.00	0.00	0.00	5.00	0.00	0.00	4.33	4.33	4.00
61	Cigarette	3	2.73 %	0	6.33	0.00	0.00	3.00	0.00	0.00	1.80	5.40	5.33
63	Heat from undetermined smoking material	1	0.91 %	0	3.00	0.00	0.00	2.00	0.00	0.00	1.50	1.50	5.00
64	Match	4	3.64 %	0	6.25	0.00	0.00	3.00	0.00	0.00	18.74	74.95	4.50
65	Cigarette lighter	2	1.82 %	0	8.50	0.00	0.00	4.00	0.00	0.00	28.61	57.22	5.00
66	Candle	2	1.82 %	0	7.00	0.00	0.00	4.00	0.00	0.00	4.78	9.57	3.50
68	Backfire from internal combustion engine	1	0.91 %	0	13.00	0.00	0.00	5.00	0.00	0.00	27.52	27.52	5.00
70	Chemical, natural heat source, other	2	1.82 %	0	17.00	0.00	0.00	7.50	0.00	0.00	77.62	155.23	3.00
74	Other static discharge	1	0.91 %	0	3.00	0.00	0.00	1.00	0.00	0.00	1.80	1.80	4.00

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2010 to 12/31/2010

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
80	Heat spread from another fire, other	0	0.00 %	6									
81	Heat from direct flame, convection currents	5	4.55 %	2	8.60	0.00	0.00	4.00	0.00	0.00	15.73	78.65	6.20
82	Radiated heat from another fire	0	0.00 %	8									
83	Flying brand, ember, spark	1	0.91 %	0	13.00	0.00	0.00	5.00	0.00	0.00	22.10	22.10	5.00
UU	Undetermined	33	30.00 %	1	9.27	0.00	0.00	4.42	0.00	0.03	24.37	804.28	5.36
Totals		110	100.00 %	28	9.41	0.00	0.00	4.30	0.00	0.01	18.37	2,020.35	4.98
Mutual Aid Given Incidents		0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2011 to 12/31/2011

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16002

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2011 to 12/31/2011

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	6	5.66 %	0	7.67	0.00	0.00	3.50	0.00	0.00	11.34	68.03	5.50
10	Heat from powered equipment, other	16	15.09 %	0	8.12	0.00	0.00	3.44	0.00	0.00	5.38	86.13	5.12
11	Spark, ember or flame from operating equipment	5	4.72 %	0	11.60	0.00	0.00	6.00	0.00	0.00	21.94	109.70	5.40
12	Radiated, conducted heat from operating equipment	12	11.32 %	0	9.75	0.00	0.00	4.17	0.00	0.00	13.06	156.72	4.75
13	Arcing	8	7.55 %	0	7.25	0.00	0.00	2.75	0.00	0.00	7.20	57.63	5.62
40	Hot or smoldering object, other	8	7.55 %	0	8.50	0.00	0.00	3.25	0.00	0.00	6.42	51.33	5.38
42	Molten, hot material	1	0.94 %	0	3.00	0.00	0.00	1.00	0.00	0.00	0.75	0.75	5.00
43	Hot ember or ash	3	2.83 %	1	10.00	0.00	0.00	4.00	0.00	0.00	12.08	36.25	5.33
56	Incendiary device	1	0.94 %	0	3.00	0.00	0.00	2.00	0.00	0.00	5.95	5.95	5.00
61	Cigarette	2	1.89 %	0	9.00	0.00	0.00	4.50	0.00	0.00	10.88	21.75	7.50
63	Heat from undetermined smoking material	1	0.94 %	0	14.00	0.00	0.00	6.00	0.00	0.00	23.57	23.57	5.00
64	Match	4	3.77 %	0	3.00	0.00	0.00	2.50	0.00	0.00	7.46	29.85	5.50
65	Cigarette lighter	2	1.89 %	0	4.00	0.00	0.00	2.50	0.00	0.00	11.36	22.72	8.00
74	Other static discharge	1	0.94 %	0	3.00	0.00	0.00	2.00	0.00	0.00	12.05	12.05	4.00
81	Heat from direct flame, convection currents	2	1.89 %	7	8.00	0.00	0.00	3.00	0.00	0.00	8.30	16.60	4.50
82	Radiated heat from another fire	1	0.94 %	10	15.00	0.00	0.00	7.00	0.00	0.00	32.75	32.75	5.00
97	Multiple heat sources including multiple ignitions	1	0.94 %	0	4.00	0.00	0.00	2.00	0.00	0.00	6.60	6.60	5.00

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2011 to 12/31/2011

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
UU	Undetermined	32	30.19 %	0	6.22	0.00	0.00	3.03	0.00	0.00	13.59	434.92	5.81
	Totals	106	100.00 %	18	7.57	0.00	0.00	3.42	0.00	0.00	11.07	1,173.30	5.47
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2012 to 12/31/2012

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16002

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2012 to 12/31/2012

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	8	8.89 %	1	13.75	0.00	0.00	6.12	0.00	0.00	38.18	305.43	90.12
10	Heat from powered equipment, other	5	5.56 %	0	10.80	0.00	0.00	4.40	0.00	0.00	12.98	64.90	5.20
11	Spark, ember or flame from operating equipment	4	4.44 %	0	13.25	0.00	0.00	6.00	0.00	0.00	34.04	136.15	6.25
12	Radiated, conducted heat from operating equipment	11	12.22 %	0	7.91	0.00	0.00	3.27	0.00	0.00	5.73	63.05	5.82
13	Arcing	4	4.44 %	0	9.50	0.00	0.50	3.75	0.00	0.50	11.56	46.23	4.00
40	Hot or smoldering object, other	6	6.67 %	0	11.50	0.00	0.00	4.50	0.00	0.00	12.23	73.38	5.83
41	Heat, spark from friction	2	2.22 %	0	1.50	0.00	0.00	0.50	0.00	0.00	1.02	2.05	4.50
43	Hot ember or ash	1	1.11 %	0	13.00	0.00	0.00	6.00	0.00	0.00	56.12	56.12	8.00
54	Fireworks	1	1.11 %	0	3.00	0.00	0.00	1.00	0.00	0.00	1.25	1.25	8.00
56	Incendiary device	1	1.11 %	0	5.00	0.00	0.00	3.00	0.00	0.00	14.92	14.92	5.00
60	Heat from other open flame or smoking materials	0	0.00 %	1									
61	Cigarette	3	3.33 %	0	12.67	0.00	0.00	4.67	0.00	0.00	9.54	28.62	6.67
62	Pipe or cigar	1	1.11 %	0	3.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	4.00
63	Heat from undetermined smoking material	1	1.11 %	0	18.00	0.00	0.00	8.00	0.00	0.00	41.40	41.40	5.00
64	Match	4	4.44 %	0	6.00	0.00	0.00	3.00	0.00	0.00	7.93	31.72	10.75
65	Cigarette lighter	4	4.44 %	0	10.00	0.00	0.00	4.75	0.00	0.00	16.13	64.53	8.75
69	Flame/torch used for lighting	1	1.11 %	0	15.00	0.00	0.00	6.00	0.00	0.00	33.75	33.75	5.00

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2012 to 12/31/2012

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
72	Chemical reaction	1	1.11 %	0	16.00	0.00	0.00	6.00	0.00	0.00	18.40	18.40	7.00
80	Heat spread from another fire, other	0	0.00 %	1									
81	Heat from direct flame, convection currents	2	2.22 %	3	8.00	0.00	0.00	4.00	0.00	0.00	2.70	5.40	5.00
82	Radiated heat from another fire	0	0.00 %	2									
UU	Undetermined	30	33.33 %	0	9.33	0.00	0.00	4.27	0.00	0.00	23.71	711.23	6.07
Totals		90	100.00 %	8	9.83	0.00	0.02	4.29	0.00	0.02	18.88	1,699.53	13.64
Mutual Aid Given Incidents		0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2013 to 12/31/2013

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16002

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2013 to 12/31/2013

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	10	10.64 %	5	11.80	0.00	0.00	5.20	0.00	0.00	20.80	208.03	4.60
10	Heat from powered equipment, other	5	5.32 %	0	13.20	0.00	0.00	5.20	0.00	0.00	7.79	38.97	5.20
11	Spark, ember or flame from operating equipment	3	3.19 %	0	7.67	0.00	0.00	3.67	0.00	0.00	12.16	36.48	8.33
12	Radiated, conducted heat from operating equipment	5	5.32 %	0	12.60	0.00	0.00	4.80	0.00	0.00	13.83	69.13	4.00
13	Arcing	6	6.38 %	0	11.00	0.00	0.00	4.83	0.00	0.00	24.34	146.03	5.33
40	Hot or smoldering object, other	1	1.06 %	0	18.00	0.00	0.00	7.00	0.00	0.00	18.90	18.90	4.00
41	Heat, spark from friction	1	1.06 %	0	3.00	0.00	0.00	1.00	0.00	0.00	2.75	2.75	6.00
42	Molten, hot material	1	1.06 %	0	3.00	0.00	0.00	1.00	0.00	0.00	1.20	1.20	5.00
43	Hot ember or ash	1	1.06 %	0	24.00	0.00	0.00	11.00	0.00	0.00	110.80	110.80	1.00
60	Heat from other open flame or smoking materials	0	0.00 %	2									
61	Cigarette	1	1.06 %	0	16.00	0.00	0.00	7.00	0.00	0.00	26.40	26.40	6.00
63	Heat from undetermined smoking material	2	2.13 %	0	13.00	0.00	0.00	6.00	0.00	0.00	15.45	30.90	5.50
65	Cigarette lighter	3	3.19 %	0	3.67	0.00	0.00	2.00	0.00	0.00	5.68	17.03	6.67
70	Chemical, natural heat source, other	1	1.06 %	0	16.00	0.00	0.00	7.00	0.00	0.00	21.87	21.87	4.00
72	Chemical reaction	2	2.13 %	1	3.00	0.00	0.00	1.00	0.00	0.00	1.15	2.30	6.00
73	Lightning	1	1.06 %	0	0.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1,136.00
80	Heat spread from another fire, other	0	0.00 %	1									

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2013 to 12/31/2013

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
81	Heat from direct flame, convection currents	3	3.19 %	1	16.33	0.00	0.00	6.33	0.00	0.00	17.56	52.68	5.33
82	Radiated heat from another fire	0	0.00 %	10									
84	Conducted heat from another fire	1	1.06 %	0	16.00	0.00	0.00	7.00	0.00	0.00	38.93	38.93	5.00
UU	Undetermined	47	50.00 %	0	9.96	0.00	0.00	4.26	0.00	0.00	19.61	921.85	5.26
	Totals	94	100.00 %	20	10.55	0.00	0.00	4.50	0.00	0.00	18.56	1,744.27	17.26
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2014 to 09/26/2014

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 16002

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2014 to 09/26/2014

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	2	3.85 %	1	3.50	0.00	0.00	1.50	0.00	0.00	6.05	12.10	8.00
10	Heat from powered equipment, other	9	17.31 %	0	9.33	0.00	0.00	3.78	0.00	0.00	7.90	71.10	5.56
11	Spark, ember or flame from operating equipment	2	3.85 %	0	11.50	0.00	0.00	5.50	0.00	0.00	26.81	53.62	5.00
12	Radiated, conducted heat from operating equipment	5	9.62 %	0	11.60	0.00	0.00	4.80	0.00	0.00	10.81	54.07	5.40
13	Arcing	4	7.69 %	0	3.75	0.00	0.00	1.25	0.00	0.00	2.95	11.80	6.50
40	Hot or smoldering object, other	3	5.77 %	1	17.00	0.00	0.00	7.67	0.00	0.00	41.63	124.88	5.00
56	Incendiary device	1	1.92 %	0	3.00	0.00	0.00	1.00	0.00	0.00	0.65	0.65	8.00
60	Heat from other open flame or smoking materials	0	0.00 %	1									
61	Cigarette	3	5.77 %	0	15.67	0.00	0.00	6.00	0.00	0.00	74.56	223.68	5.67
65	Cigarette lighter	2	3.85 %	0	16.50	0.00	0.00	7.00	0.00	0.50	25.50	51.00	4.50
72	Chemical reaction	2	3.85 %	0	16.00	0.00	0.00	7.00	0.00	0.00	36.65	73.30	5.00
80	Heat spread from another fire, other	0	0.00 %	3									
81	Heat from direct flame, convection currents	2	3.85 %	4	9.50	0.00	0.00	4.50	0.00	0.00	29.81	59.62	5.50
82	Radiated heat from another fire	0	0.00 %	4									
UU	Undetermined	17	32.69 %	0	13.06	0.00	0.00	5.65	0.00	0.00	37.40	635.80	5.53
Totals		52	100.00 %	14	11.42	0.00	0.00	4.85	0.00	0.02	26.38	1,371.62	5.63
Mutual Aid Given Incidents		0											

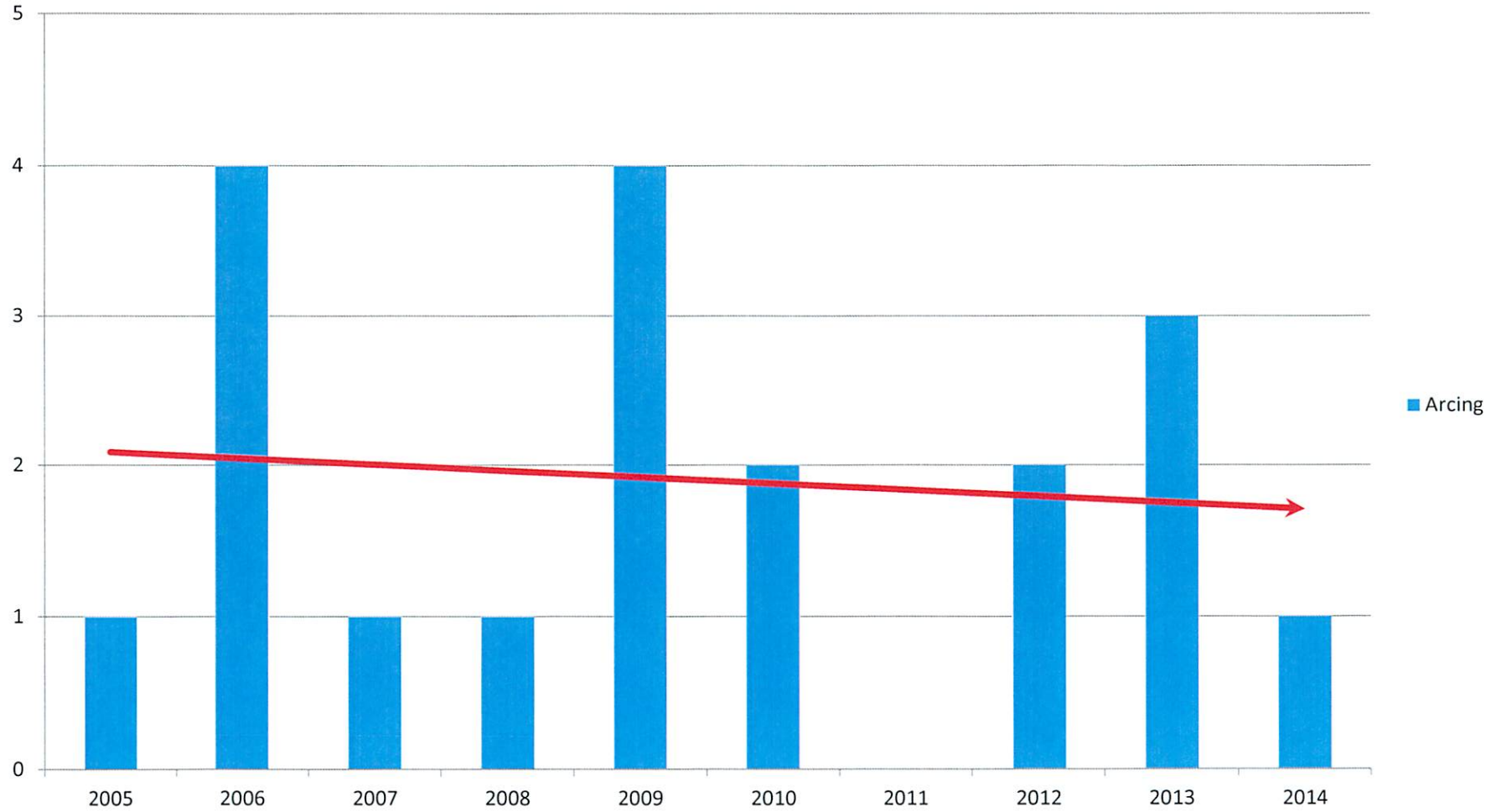
ATTACHMENT A.4

NFIRS Data

East Fork Fire Protection District
Calendar Years 2005—2014

Retrieved from the National Data Center on
October 6, 2014

Arcing - East Fork FPD



Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2014 to 10/06/2014

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	5	22.73 %	0	8.80	0.00	0.00	5.40	0.00	0.00	6.96	34.82	7.80
10	Heat from powered equipment, other	3	13.64 %	0	13.33	0.00	0.00	7.67	0.00	0.00	6.53	19.60	5.00
12	Radiated, conducted heat from operating equipment	2	9.09 %	0	14.50	0.00	0.00	8.50	0.00	0.00	20.37	40.73	6.00
13	Arcing	1	4.55 %	0	13.00	0.00	0.00	9.00	0.00	0.00	35.10	35.10	8.00
40	Hot or smoldering object, other	2	9.09 %	0	10.00	0.00	0.00	6.00	0.00	0.00	10.75	21.50	8.50
41	Heat, spark from friction	1	4.55 %	0	6.00	0.00	0.00	4.00	0.00	0.00	2.90	2.90	3.00
43	Hot ember or ash	1	4.55 %	0	14.00	0.00	0.00	9.00	0.00	0.00	9.33	9.33	3.00
61	Cigarette	1	4.55 %	0	44.00	0.00	0.00	24.00	0.00	0.00	271.33	271.33	7.00
71	Sunlight	1	4.55 %	0	16.00	0.00	0.00	10.00	0.00	0.00	16.27	16.27	7.00
73	Lightning	1	4.55 %	0	5.00	0.00	0.00	3.00	0.00	0.00	8.75	8.75	11.00
UU	Undetermined	4	18.18 %	0	20.00	0.00	0.00	10.75	0.00	0.00	41.48	165.92	8.75
	Totals	22	100.00 %	0	14.14	0.00	0.00	8.23	0.00	0.00	28.47	626.25	7.14
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2014 to 10/06/2014

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 04050

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2013 to 12/31/2013

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	2	9.52 %	0	4.50	0.00	0.00	3.00	0.00	0.00	1.52	3.05	8.50
10	Heat from powered equipment, other	2	9.52 %	0	8.00	0.00	0.00	5.50	0.00	0.00	8.06	16.12	11.00
11	Spark, ember or flame from operating equipment	1	4.76 %	0	6.00	0.00	0.00	4.00	0.00	0.00	3.10	3.10	6.00
12	Radiated, conducted heat from operating equipment	1	4.76 %	0	7.00	4.00	1.00	5.00	2.00	1.00	38.60	38.60	11.00
13	Arcing	3	14.29 %	0	9.33	0.00	0.00	6.00	0.00	0.00	5.68	17.03	8.33
40	Hot or smoldering object, other	2	9.52 %	0	14.50	0.00	0.00	9.00	0.00	0.00	15.68	31.37	7.00
41	Heat, spark from friction	1	4.76 %	0	13.00	0.00	0.00	8.00	0.00	0.00	6.28	6.28	9.00
43	Hot ember or ash	2	9.52 %	0	10.00	0.00	0.00	4.50	0.00	0.00	7.34	14.68	8.50
80	Heat spread from another fire, other	1	4.76 %	0	11.00	0.00	0.00	7.00	0.00	0.00	4.77	4.77	3.00
81	Heat from direct flame, convection currents	1	4.76 %	0	11.00	0.00	0.00	7.00	0.00	0.00	11.18	11.18	6.00
83	Flying brand, ember, spark	1	4.76 %	0	15.00	0.00	0.00	8.00	0.00	0.00	14.25	14.25	8.00
UU	Undetermined	4	19.05 %	0	8.25	0.00	0.00	5.00	0.00	0.00	14.91	59.65	12.75
	Totals	21	100.00 %	0	9.43	0.19	0.05	5.76	0.10	0.05	10.48	220.08	9.00
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2013 to 12/31/2013

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 04050

*Data from deactivated fire depts within the list was not included in the report.

Totals	53	100.00 %	0	11.74	0.00	0.04	7.23	0.00	0.02	17.73	939.78	8.40
Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2012 to 12/31/2012

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	3	5.66 %	0	12.67	0.00	0.00	10.00	0.00	0.00	19.39	58.17	7.67
10	Heat from powered equipment, other	6	11.32 %	0	12.33	0.00	0.00	7.83	0.00	0.00	25.59	153.52	6.17
11	Spark, ember or flame from operating equipment	2	3.77 %	0	11.00	0.00	0.00	7.00	0.00	0.00	23.72	47.43	7.50
12	Radiated, conducted heat from operating equipment	6	11.32 %	0	11.17	0.00	0.00	6.67	0.00	0.00	22.11	132.63	7.00
13	Arcing	2	3.77 %	0	11.50	0.00	0.00	8.00	0.00	0.00	20.72	41.43	7.00
40	Hot or smoldering object, other	1	1.89 %	0	13.00	0.00	0.00	9.00	0.00	0.00	22.32	22.32	11.00
41	Heat, spark from friction	1	1.89 %	0	6.00	0.00	0.00	4.00	0.00	0.00	5.10	5.10	9.00
43	Hot ember or ash	4	7.55 %	0	16.25	0.00	0.00	9.75	0.00	0.00	21.65	86.58	6.25
61	Cigarette	1	1.89 %	0	10.00	0.00	0.00	6.00	0.00	0.00	10.00	10.00	4.00
64	Match	2	3.77 %	0	5.00	0.00	0.00	4.00	0.00	0.00	4.27	8.53	11.50
65	Cigarette lighter	1	1.89 %	0	11.00	0.00	0.00	7.00	0.00	0.00	12.10	12.10	5.00
66	Candle	1	1.89 %	0	19.00	0.00	0.00	11.00	0.00	0.00	68.40	68.40	6.00
70	Chemical, natural heat source, other	2	3.77 %	0	8.50	0.00	0.00	5.50	0.00	0.00	3.92	7.85	8.50
72	Chemical reaction	1	1.89 %	0	4.00	0.00	0.00	2.00	0.00	0.00	6.47	6.47	5.00
81	Heat from direct flame, convection currents	1	1.89 %	0	20.00	0.00	0.00	12.00	0.00	0.00	20.00	20.00	12.00
83	Flying brand, ember, spark	1	1.89 %	0	19.00	0.00	0.00	10.00	0.00	0.00	11.40	11.40	8.00
UU	Undetermined	18	33.96 %	0	11.33	0.00	0.11	6.50	0.00	0.06	13.77	247.85	10.50

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2012 to 12/31/2012

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 04050

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2011 to 12/31/2011

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
UU	Undetermined	14	25.93 %	0	12.86	0.00	0.00	7.07	0.00	0.00	31.65	443.05	86.64
	Totals	54	100.00 %	0	12.20	0.00	0.00	7.06	0.00	0.00	23.11	1,247.83	27.26
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2011 to 12/31/2011

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	4	7.41 %	0	8.50	0.00	0.00	5.25	0.00	0.00	20.36	81.43	6.00
10	Heat from powered equipment, other	4	7.41 %	0	16.00	0.00	0.00	8.50	0.00	0.00	17.89	71.55	8.00
11	Spark, ember or flame from operating equipment	4	7.41 %	0	19.25	0.00	0.00	11.00	0.00	0.00	65.50	262.00	7.75
12	Radiated, conducted heat from operating equipment	3	5.56 %	0	9.33	0.00	0.00	6.00	0.00	0.00	8.41	25.23	3.00
40	Hot or smoldering object, other	2	3.70 %	0	5.50	0.00	0.00	3.50	0.00	0.00	2.52	5.05	5.00
43	Hot ember or ash	6	11.11 %	0	13.50	0.00	0.00	7.33	0.00	0.00	11.17	67.00	5.17
60	Heat from other open flame or smoking materials	1	1.85 %	0	7.00	0.00	0.00	4.00	0.00	0.00	4.08	4.08	5.00
61	Cigarette	1	1.85 %	0	8.00	0.00	0.00	5.00	0.00	0.00	4.80	4.80	5.00
62	Pipe or cigar	1	1.85 %	0	9.00	0.00	0.00	9.00	0.00	0.00	35.40	35.40	9.00
64	Match	1	1.85 %	0	2.00	0.00	0.00	1.00	0.00	0.00	0.43	0.43	2.00
65	Cigarette lighter	2	3.70 %	0	12.50	0.00	0.00	7.50	0.00	0.00	11.92	23.83	5.00
68	Backfire from internal combustion engine	1	1.85 %	0	9.00	0.00	0.00	3.00	0.00	0.00	1.95	1.95	5.00
69	Flame/torch used for lighting	1	1.85 %	0	1.00	0.00	0.00	2.00	0.00	0.00	4.87	4.87	18.00
72	Chemical reaction	2	3.70 %	0	20.00	0.00	0.00	11.50	0.00	0.00	67.98	135.97	12.00
81	Heat from direct flame, convection currents	3	5.56 %	0	13.00	0.00	0.00	9.00	0.00	0.00	13.12	39.35	5.67
83	Flying brand, ember, spark	2	3.70 %	0	10.50	0.00	0.00	6.00	0.00	0.00	9.24	18.48	6.50
84	Conducted heat from another fire	2	3.70 %	0	11.50	0.00	0.00	6.50	0.00	0.00	11.68	23.35	7.00

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2011 to 12/31/2011

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 04050

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2010 to 12/31/2010

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	5	11.11 %	0	8.20	0.00	0.00	4.60	0.00	0.00	23.22	116.08	297.00
10	Heat from powered equipment, other	9	20.00 %	0	9.78	0.00	0.00	5.44	0.00	0.00	8.02	72.20	5.11
11	Spark, ember or flame from operating equipment	2	4.44 %	0	14.00	0.00	0.00	6.00	0.00	0.00	14.35	28.70	7.50
12	Radiated, conducted heat from operating equipment	3	6.67 %	0	6.00	0.00	0.00	4.33	0.00	0.00	3.09	9.28	8.00
13	Arcing	2	4.44 %	0	13.50	0.00	0.00	9.00	0.00	0.00	33.93	67.87	6.50
40	Hot or smoldering object, other	3	6.67 %	0	12.67	0.00	0.00	7.33	0.00	0.00	20.80	62.40	8.00
43	Hot ember or ash	6	13.33 %	0	13.00	0.00	0.00	6.83	0.00	0.00	12.16	72.98	6.17
64	Match	4	8.89 %	0	7.75	1.50	0.00	4.50	1.00	0.00	65.09	260.35	22.75
66	Candle	1	2.22 %	0	12.00	0.00	0.00	7.00	0.00	0.00	10.60	10.60	6.00
68	Backfire from internal combustion engine	1	2.22 %	0	12.00	0.00	0.00	5.00	0.00	0.00	3.40	3.40	10.00
UU	Undetermined	9	20.00 %	0	10.11	0.00	0.00	5.22	0.00	0.00	20.34	183.05	9.00
	Totals	45	100.00 %	0	10.31	0.13	0.00	5.67	0.09	0.00	19.71	886.92	40.71
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2010 to 12/31/2010

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 04050

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2009 to 12/31/2009

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	6	16.67 %	0	12.33	0.00	0.00	6.83	0.00	0.00	7.84	47.05	6.00
10	Heat from powered equipment, other	4	11.11 %	0	8.00	0.00	0.00	4.50	0.00	0.00	7.25	29.00	9.50
11	Spark, ember or flame from operating equipment	1	2.78 %	0	7.00	0.00	0.00	4.00	0.00	0.00	4.20	4.20	8.00
13	Arcing	4	11.11 %	0	6.50	0.00	0.00	4.25	0.00	0.00	2.30	9.20	5.25
40	Hot or smoldering object, other	3	8.33 %	0	5.67	0.00	0.00	3.67	0.00	0.00	3.24	9.72	6.00
41	Heat, spark from friction	1	2.78 %	0	5.00	0.00	0.00	5.00	0.00	0.00	0.92	0.92	8.00
43	Hot ember or ash	2	5.56 %	0	14.00	0.00	0.00	7.50	0.00	0.00	14.39	28.78	6.00
60	Heat from other open flame or smoking materials	1	2.78 %	0	10.00	0.00	0.00	7.00	0.00	0.00	13.83	13.83	6.00
64	Match	2	5.56 %	0	3.50	0.00	0.00	2.50	0.00	0.00	1.62	3.25	10.50
72	Chemical reaction	1	2.78 %	0	7.00	0.00	0.00	9.00	0.00	0.00	12.13	12.13	8.00
UU	Undetermined	11	30.56 %	0	15.55	0.18	0.18	9.00	0.09	0.09	40.69	447.57	7.45
	Totals	36	100.00 %	0	10.67	0.06	0.06	6.42	0.03	0.03	16.82	605.65	7.17
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2009 to 12/31/2009

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 04050

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2008 to 12/31/2008

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	1	3.23 %	0	4.00	0.00	0.00	3.00	0.00	0.00	1.93	1.93	8.00
10	Heat from powered equipment, other	6	19.35 %	0	9.00	0.33	0.00	5.83	0.17	0.00	9.16	54.93	9.00
11	Spark, ember or flame from operating equipment	4	12.90 %	0	6.50	0.00	0.00	4.25	0.00	0.00	3.95	15.80	7.00
12	Radiated, conducted heat from operating equipment	3	9.68 %	0	20.33	0.00	0.00	10.67	0.00	0.00	160.24	480.73	8.00
13	Arcing	1	3.23 %	0	1.00	0.00	0.00	1.00	0.00	0.00	1.57	1.57	7.00
40	Hot or smoldering object, other	1	3.23 %	0	4.00	0.00	0.00	2.00	0.00	0.00	2.13	2.13	3.00
41	Heat, spark from friction	1	3.23 %	0	4.00	0.00	0.00	4.00	0.00	0.00	3.47	3.47	8.00
43	Hot ember or ash	1	3.23 %	0	24.00	0.00	0.00	13.00	0.00	0.00	27.60	27.60	7.00
60	Heat from other open flame or smoking materials	2	6.45 %	0	13.00	0.00	0.00	9.00	0.00	0.00	10.34	20.68	7.00
61	Cigarette	2	6.45 %	0	18.50	1.00	0.00	9.50	0.50	0.00	60.50	121.00	6.00
64	Match	1	3.23 %	0	6.00	0.00	0.00	5.00	0.00	0.00	7.10	7.10	5.00
66	Candle	1	3.23 %	0	2.00	0.00	0.00	2.00	0.00	0.00	0.17	0.17	2.00
69	Flame/torch used for lighting	1	3.23 %	0	23.00	0.00	0.00	11.00	0.00	0.00	39.10	39.10	10.00
70	Chemical, natural heat source, other	1	3.23 %	0	4.00	2.00	0.00	4.00	1.00	0.00	11.40	11.40	8.00
UU	Undetermined	5	16.13 %	0	8.00	0.00	0.00	5.60	0.00	0.00	8.38	41.92	8.80
Totals		31	100.00 %	0	10.19	0.19	0.00	6.26	0.10	0.00	26.76	829.53	7.55
Mutual Aid Given Incidents		0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2008 to 12/31/2008

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 04050

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2007 to 12/31/2007

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	3	8.11 %	0	6.33	0.00	0.00	4.33	0.00	0.00	4.11	12.33	7.00
10	Heat from powered equipment, other	5	13.51 %	0	6.80	0.00	0.00	4.60	0.00	0.00	7.62	38.08	6.80
11	Spark, ember or flame from operating equipment	2	5.41 %	0	10.50	0.00	0.00	7.00	0.00	0.00	15.63	31.27	2.50
12	Radiated, conducted heat from operating equipment	4	10.81 %	0	7.75	0.00	0.00	4.25	0.00	0.00	5.97	23.88	10.50
13	Arcing	1	2.70 %	0	7.00	0.00	0.00	5.00	0.00	0.00	2.80	2.80	4.00
40	Hot or smoldering object, other	3	8.11 %	0	9.33	0.00	0.00	7.00	0.00	0.00	15.09	45.27	4.33
42	Molten, hot material	1	2.70 %	0	7.00	0.00	0.00	4.00	0.00	0.00	1.52	1.52	7.00
43	Hot ember or ash	3	8.11 %	0	10.67	0.00	0.00	5.67	0.00	0.00	12.24	36.73	7.00
60	Heat from other open flame or smoking materials	2	5.41 %	0	17.00	0.00	0.00	9.00	0.00	0.00	31.75	63.50	11.00
61	Cigarette	1	2.70 %	0	5.00	0.00	0.00	3.00	0.00	0.00	2.00	2.00	7.00
64	Match	2	5.41 %	0	5.50	0.50	0.00	4.00	0.50	0.00	7.97	15.93	5.50
65	Cigarette lighter	1	2.70 %	0	9.00	0.00	0.00	4.00	0.00	0.00	9.30	9.30	9.00
69	Flame/torch used for lighting	2	5.41 %	0	19.50	0.00	0.00	12.00	0.00	0.00	21.02	42.05	13.50
74	Other static discharge	2	5.41 %	0	10.50	2.00	0.00	7.00	1.00	0.00	16.48	32.97	4.00
UU	Undetermined	5	13.51 %	0	5.00	0.00	0.00	3.00	0.00	0.00	2.64	13.18	8.40
Totals		37	100.00 %	0	8.73	0.14	0.00	5.41	0.08	0.00	10.02	370.82	7.38
Mutual Aid Given Incidents		0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2007 to 12/31/2007

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 04050

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2006 to 12/31/2006

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
00	Heat source: other	1	2.86 %	0	11.00	0.00	0.00	5.00	0.00	0.00	7.15	7.15	7.00
10	Heat from powered equipment, other	4	11.43 %	0	5.75	0.00	0.00	3.00	0.00	0.00	5.15	20.58	5.00
11	Spark, ember or flame from operating equipment	1	2.86 %	0	7.00	0.00	0.00	5.00	0.00	0.00	5.37	5.37	3.00
12	Radiated, conducted heat from operating equipment	4	11.43 %	0	9.75	1.00	0.00	5.25	0.75	0.00	22.06	88.25	9.00
13	Arcing	4	11.43 %	0	17.75	0.00	0.00	8.75	0.00	0.00	99.40	397.58	9.00
41	Heat, spark from friction	2	5.71 %	0	3.50	1.50	0.00	2.50	1.00	0.00	1.62	3.23	6.50
56	Incendiary device	1	2.86 %	0	30.00	0.00	0.00	14.00	0.00	0.00	54.50	54.50	7.00
60	Heat from other open flame or smoking materials	1	2.86 %	0	8.00	0.00	0.00	7.00	0.00	0.00	4.80	4.80	6.00
66	Candle	1	2.86 %	0	19.00	0.00	0.00	11.00	0.00	0.00	69.67	69.67	8.00
69	Flame/torch used for lighting	1	2.86 %	0	19.00	0.00	0.00	11.00	0.00	0.00	59.53	59.53	9.00
72	Chemical reaction	1	2.86 %	0	28.00	0.00	0.00	14.00	0.00	0.00	207.20	207.20	7.00
UU	Undetermined	14	40.00 %	0	13.36	0.00	0.00	7.79	0.00	0.00	61.31	858.40	7.36
	Totals	35	100.00 %	0	12.83	0.20	0.00	7.11	0.14	0.00	50.75	1,776.27	7.29
	Mutual Aid Given Incidents	0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2006 to 12/31/2006

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 04050

*Data from deactivated fire depts within the list was not included in the report.

Detailed Selected Statistics & Management Activity

Selected Coded Field: Fire: Heat Source

Report Period: From 01/01/2005 to 12/31/2005

CODE	DESCRIPTOR	FREQUENCY	FREQ. PERCENT	EXPs	AVG # SUPPR PERS	AVG # EMS PERS	AVG # OTHER PERS	AVG # SUPPR APPR	AVG # EMS APPR	AVG # OTHER APPR	AVERAGE # MAN HOURS	TOTAL MAN HOURS	AVERAGE RESPONSE TIME (min)
10	Heat from powered equipment, other	3	8.33 %	0	5.33	1.00	0.00	3.00	0.67	0.00	5.37	16.12	5.67
11	Spark, ember or flame from operating equipment	2	5.56 %	0	3.50	0.00	0.00	2.50	0.00	0.00	1.20	2.40	5.50
12	Radiated, conducted heat from operating equipment	7	19.44 %	0	7.14	0.14	0.00	4.00	0.14	0.00	6.55	45.88	14.14
13	Arcing	1	2.78 %	0	6.00	0.00	0.00	3.00	0.00	0.00	2.10	2.10	7.00
40	Hot or smoldering object, other	1	2.78 %	0	16.00	0.00	0.00	8.00	0.00	0.00	416.53	416.53	1,449.00
41	Heat, spark from friction	1	2.78 %	0	7.00	0.00	0.00	4.00	0.00	0.00	4.43	4.43	5.00
43	Hot ember or ash	3	8.33 %	0	12.33	0.00	0.00	5.67	0.00	0.00	11.27	33.82	9.67
60	Heat from other open flame or smoking materials	1	2.78 %	0	16.00	0.00	0.00	7.00	0.00	0.00	21.07	21.07	8.00
64	Match	2	5.56 %	0	18.00	0.00	0.00	13.50	0.00	0.00	52.05	104.10	4.00
68	Backfire from internal combustion engine	1	2.78 %	0	6.00	0.00	0.00	3.00	0.00	0.00	1.20	1.20	4.00
69	Flame/torch used for lighting	1	2.78 %	0	14.00	2.00	0.00	7.00	1.00	0.00	38.40	38.40	8.00
71	Sunlight	1	2.78 %	0	4.00	0.00	0.00	2.00	0.00	0.00	0.67	0.67	4.00
UU	Undetermined	12	33.33 %	0	16.50	0.33	0.00	7.50	0.17	0.00	56.74	680.87	7.83
Totals		36	100.00 %	0	11.47	0.28	0.00	5.83	0.17	0.00	37.99	1,367.58	48.42
Mutual Aid Given Incidents		0											

Detailed Selected Statistics & Management Activity

Created by: Danny Brennan (NV)

Report Parameters:

Report Period: From 01/01/2005 to 12/31/2005

State: NV ***Version:*** All ***Status:*** All ***Released:*** All

Report Filters:

NOTE: Report Filter Groups are applied to the report SQL as "AND" conditions (i.e. Group 1 AND Group2 and Group 3 etc...)

Report FDIDs*: 04050

*Data from deactivated fire depts within the list was not included in the report.

ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

ATTACHMENT B

Fire Department/NV Energy Fire Incident Summaries

NV Energy electric meter fire issues raised by local fire departments

Date of incident/ Address/ Fire Agency	FD report incident coding	FD incident report findings/conclusions	NVE findings quoted from correspondence to the Nevada SFM Division	Notes
11/11/2012 6074 Torrington Drive, Reno Reno Fire Dept.	Incident Type - 1111 Building fire; Area of Origin - 76 Wall surface; exterior; Heat Source - 13 Arcing; Item First Ignited - 00 Other; Type of Material - 4 Plastics; Cause of Ignition - 3 Failure of equipment or heat source; Contribution to Ignition - NN None	Building occupant was at electric service panel resetting a branch circuit breaker when arcing occurred injuring the occupant.	This event was a failure of customer owned equipment not the meter. This event was inspected and evaluated by a third party forensic expert. The scientific conclusion reached by the third party forensic expert identified the cause of failure as a failure of the jaws in the customer owned panel (i.e. a "hot socket"). See Third Party Forensic Report for this address.	
11/30/2012 6 East H Street, Sparks Sparks Fire Dept.	Incident Type - 111 Building fire; Area of Origin - 52 Conduit, pipe, utility, or ventilation shaft; Heat Source - UU Undetermined; Item First Ignited - UU Undetermined; Cause of Ignition - 3 Failure of equipment or heat source; Contribution to Ignition - UU Undetermined; Equipment Type - 213 Electric meter, meter	Opinion & Conclusion: The origin of this fire is the electrical meter and the cause appears to be malfuntion of electrical equipment. It is the opinion of this Investigator, that this is an accidental fire caused by malfuntioning electrical equipment.	Evidence points to water intrusion as cause of failure. Marking on meter ring and on panel cover suggest water intrusion. Heavy ranins preceding failure.	SFD incident report coded as an undetermined cause.
12/12/2012 1521 G Street, Sparks Sparks Fire Dept.	Incident Type - 445 Arcing, shorted electrical equipment	Engine company responded to a report of a breaker box arcing and smoking at this address. The engine company met the reporting party in the alley and was shown the breaker box and meter that was causing the issue. It was not actively arcing or smoking after the engine company had arrived. The engine company waited on scene until NV Energy personnel arrived and then left the scene with NV Energy and the reporting party. Note: this incident involved a "smart meter."	This event did not involve a smart meter. The meter that is alleged to have been involved with this event is the same meter that was originally installed on June 18, 2012, and is the meter still installed and functioning today. The meter is definitively ruled out as point of inititation. This event resulted from a problem with the customer owned panel. When NV Energy responded, the customer was notified that he needed to replace or repair the panel. NV Energy advised the customer of the need to repair the panel and then removed the meter to allow the customer to repair the panel. After the customer completed the necessary repairs, NV Energy reinstalled the same meter that had previously been installed at the residence. It is unknown to NV Energy as to why this continues to be referred to as a meter event.	No investigation by a Sparks Fire Department fire investigator. No photographic evidence submitted by the fire department. No detail of damages noted in the SFD report.

NV Energy electric meter fire issues raised by local fire departments

Date of incident/ Address/ Fire Agency	FD report incident coding	FD incident report findings/conclusions	NVE findings quoted from correspondence to the Nevada SFM Division	Notes
1/2/2013 200 East Lincoln Way, Sparks Sparks Fire Dept.	Incident Type - 111 Building fire; Area of Origin - 47 Vehicle storage area, garage, carport; Heat Source - UU Undetermined; Item First Ignited - UU Undetermined; Cause of Ignition - 5 Cause under investigation; Contribution to Ignition - UU Undetermined	Opinion & Conclusion: The area of origin for this fire was on the west exterior wall of the garage. The point of origin is with the main electrical panel. This fire spread to the interior of the garage through contact with the vapor barrier paper used behind the aluminum siding. A Supplemental Report by the fire investigator contradicted the above by stating the fire started within the garage area on the west wall.	The meter has been positively eliminated as a possible source of this fire. The meter in this event was attacked by outside fire sources. This was confirmed by the fact that the meter continued to function after the incident was reported. This was further proven through arc mapping and other forensic investigation at the scene. Under the scientific method, the meter was ruled out as point of initiation. See Third Party Forensic Report for this address.	SFD Incident report coded as an undetermined cause. The SFD investigator's narrative report and the NVE investigators disagree as to the location of the origin of the fire with SFD stating it was on the exterior of the garage within the main electric panel and NVE's consultant stating it started inside the garage and spread to the panel.
1/11/2013 7255 Windswept Loop, Sparks Sparks Fire Dept.	Incident Type - 111 Building fire; Area of Origin - 76 Wall surface, exterior; Heat Source - 13 Arcing; Item First Ignited - 00 Other; Cause of Ignition - 5 Cause under investigation; Contribution to Ignition - 34 Unspecified short-circuit arc; Equipment Type - 213 Electric meter, meter box	Opinion & Conclusion: The area of origin for the fire is the east exterior garage wall. The point of origin is inside the electrical panel between the electrical service side of the smart meter and the load side of the panel. The cause is the electrical components of the smart meter or panel connection failing and arching (sic) resulting in a fire or explosion of the smart meter and panel.	No evidence pointing to a failure of the meter. A joint inspection involving the Sparks Fire Department, the Federal Bureau of Alcohol Tobacco and Firearms ("ATF") and NV Energy was conducted in this matter. Following this inspection, it was determined that it was unlikely that any internal failure of the meter was a cause of a fire. See Third Party Forensic Report for this address.	
6/4/2013 1521 Church St., Gardnerville East Fork fire Protection District	Incident Type - 155 Outside stationary compactor/compacted trash fire	EFFPD Narrative Report: Upon arrival on scene, the engine company reported no smoke or fire. The reporting party had seen flames at the breaker box just prior to fire department arrival. They remained on scene until arrival by NV Energy whereupon they departed.	This was a failure contained to the electric panel. As evidenced by the photographs attached to the fire report there was no smoke or soot damage beyond the panel itself. This failure exhibited conditions consistent with those seen in a hot socket condition. The meter and electric panel were replaced.	Incident not investigated by EFFPD fire investigator. Small population cap county--SFM Division was not asked to investigate this fire.

NV Energy electric meter fire issues raised by local fire departments

Date of incident/ Address/ Fire Agency	FD report incident coding	FD incident report findings/conclusions	NVE findings quoted from correspondence to the Nevada SFM Division	Notes
7/1/2013 1369 North US 395, Gardnerville East Fork fire Protection District	Incident Type - 162 Outside equipment fire; Area of Origin - 76 Wall surface, exterior; Heat Source - Arcing; Item First Ignited - 81 Electrical wire, cable insulation; Cause of Ignition - 2 Unintentional; Contribution to Ignition 1 - 21 Automatic control failure; Contribution To Ignition 2 - 34 Unspecified short-circuit arc; Equipment Type - 213 Electric meter, meter box	EFFPD Narrative Report stated that the engine company arrived on scene to an extinguished fire in the electrical utility box / meter. Employees had been trying to extinguish a fire in the electrical box with a garden hose. Workers from a neighboring facility used a dry chemical extinguisher to put out the fire. Scene turned over to EFFPD fire investigator and suppression units were released.	This failure was caused by water introduced to the panel and meter during pressure washing of an external wall. During the process, the pressure washing and water intrusion caused the meter failure. The failure was contained to the panel as evidenced by the photographs attached to the fire report.	EFFPD Fire Investigator's report not provided by the Fire District. Small population cap county--SFM Division was not asked to investigate this fire.
5/21/2014 1210 Firefly Court, Reno Reno Fire Dept.	Incident Type - 111 Building fire; Area of Origin - 63 Switchgear area, transformer vault; Heat Source - 13 Arcing; Item First Ignited - 81 Electrical wire, cable insulation; Cause of Ignition - 3 Failure of equipment or heat source; Contribution to Ignition - 34 Unspecified short-circuit arc; Equipment Type - 213 Electric meter, meter box	RFD Narrative Report: Found residential electrical service fire, at service entrance to house. Fire had burned itself out prior to our arrival. Power company on scene prior to our arrival. Fire appeared to start at meter and was confined to electrical box.	Evidence points to water intrusion as the cause of failure. Very little of the meter remains to form further conclusions. Slight evidence of water intrusion - whitish residue on security ring. Heavy ranins preceding failure.	Incident not investigated by Reno Fire Department fire investigator. Incident narrative by Engine Company Captain, no photos or evidence taken.

NV Energy electric meter fire issues raised by local fire departments

Date of incident/ Address/ Fire Agency	FD report incident coding	FD incident report findings/conclusions	NVE findings quoted from correspondence to the Nevada SFM Division	Notes
6/11/2014 160 Arletta Street, Reno Reno Fire Dept.	Incident Type - 445 - Arcing, shorted electrical equipment	RFD Investigator concluded that the fire started inside the electric meter. RFD consultant states the meter damage was consistent with the Rhinestone, El Cap and Windswept meter damage and that nothing conclusive was learned from the examination of each device, but then goes on to state that unlike the others, the Arletta meter probably did fail and start the fire without further explanation.	Under investigation. This is an apartment building unit with the meter installed on a group panel. NV Energy was able to review this meter for the first time at the joint inspection on August 27, 2014. This meter was not subject to any e-ray examination and the Reno Fire Departmnet still has possession of the meter and panel, so NV Energy cannot facilitate additional testing at this time NV Energy need to gather additional informationr egarding the facts preceding the event. This residence had been disconnected in the day(s) prior to the event. At time of reconnect the customer described flickering lights. The customer of record told NV Energy he had run an extension cord from his neighbor's residence to his apartment while he was out of power. It is believed that the extension cord was connected at the time service was resotred. One area of investigation that needs to be explored involves a possible back feed to the system at the time of power restoration as a reulst of the extension cord issue.	RFD Consultant noted that he would have to conduct an arc mapping to actually identify initial location of any electrical fault but did not do so.
6/12/2014 4742 El Cap Court, Sparks Sparks Fire Dept.	(NFIRS coded report not provided by SFD.)	Opion & Conclusion: The area of origin for the fire is the exterior garage wall. The point of origin is inside the electrical panel between the electrical service side of the smart meter and the load side of the panel. The cause is the elctrical components of the smart meter failing and arching (sic) resulting in a fire/explosion of the smart meter.	Under investigation. NV Energy was able to review this meter for the first time at the joint inspection on August 27, 2014. This meter was not subject to any x-ray examination and the Sparks Fire Department still has possession of the meter and panel, so NV Energy cannot facilitate that testing at this time. NV Energy needs to gather additional information regarding homeowner statement surrounding events preceding the event. NV Energy has second hand information that the homeowner was working in the garage at time of incident and that the meter failed following the slamming of the garage door by wind gust on the same wall that houses the meter. NV Energy needs information concerning the force of the slammed door, the type of wall, whether the force was sufficient to jar the panel and/or the tension clips etc.	

NV Energy electric meter fire issues raised by local fire departments

Date of incident/ Address/ Fire Agency	FD report incident coding	FD incident report findings/conclusions	NVE findings quoted from correspondence to the Nevada SFM Division	Notes
7/27/2014 7625 Rhinestone Circle, Reno Reno Fire Dept.	Incident Type - 1111 Building fire; Area of Origin - 99 Outside area, other; Heat Source - UU Undetermined; Item First Ignited - UU Undetermined; Cause of Ignition - 5 Cause under investigation; Contribution to Ignition - UU Undetermined	RFD fire investigator states that the electric meter communicated normally with NV Energy almost a full minute after the neighbor called 9-1-1 when they spotted fire coming from the second floor. Investigator acknowledged that the fire had been burning for an extended time before 9-1-1 was called by the neighbor.	The meter at this residence continued to function after the house fire was reported to 911 dispatch (call indicates visible flames on side of home). This timing confirms that the meter did not fail prior to fire being present at the residence. Analysis by a third party forensic expert concluded it was physically impossible for the meter to be the point of initiation. See Third Party Forensic Report for this address.	RFD incident report coded as an undetermined cause. One civilian fire fatality. Private fire investigation company representing the homeowners insurance carrier--their report has not been provided.

ATTACHMENT C

NV Energy Correspondence

NVEnergy

October 1, 2014

Chief Peter J. Mulvihill, P.E.
Nevada State Fire Marshal
107 Jacobsen Way
Carson City, NV 89711

Dear Chief Mulvihill:

We want to thank you for taking the time to review the incidents that have recently been brought to your attention by the Reno and Sparks Fire Departments. First and foremost, we want to reiterate that the safety of our customers, employees and equipment is our number one priority. We are working with forensic experts, your office, local fire departments, the Public Utilities Commission of Nevada, as well as the manufacturer to determine what will be the best course of action to take going forward.

We believe we have a direct shared interest with your office in this regard and certainly want to ensure a complete review of these incidents. We have thus made available all reports we have from third party investigations which provide either a conclusive basis to rule the meter out as a cause of an incident or confirm the indeterminate outcome indicated by the respective fire departments. We have also grouped the nine incidents most recently cited in media accounts into three separate categories:

- Event Not Involving the Meter-Meter Still in Place (1)
- Structure Fires-Meter Functioned After Initiation, Confirming Other Cause (2)
- Consumed Meters-Contained to Electrical Panel, No Structure Fire (6)

NV Energy took extra measures in the installation phase of the metering project. We provided training for installers to inspect customer-owned electrical panels. In addition, NV Energy repaired or replaced over 1,400 customer-owned electric panels at our cost. As you have noted in previous reports, the incidence of arc-related electrical fires has been in the decline since 2010 when smart meters were first installed. We certainly hope that trend continues and are also open to any review of this aspect of the project or anything we can do in conjunction with customers to further ensure safe operation of electrical panels in conjunction with the NV Energy meter.

We have collected data on damaged and consumed meters since beginning the smart meter installation program in 2010. This data shows that there are a number of factors that contribute to damaged or consumed meters. These variables include electric panel conditions, tampering, weather related variables and other circumstances. In short, there is not one single factor that can be pointed to in connection with the meter failures being reported. We are also familiar with issues experienced at other utilities and are looking at those circumstances to assess whether there is additional information that will aid the analysis in our service territories. We look forward to sharing with you and the Public Utilities Commission of Nevada the information NV Energy has obtained as a result of our own ongoing investigation.

We take seriously any alleged failure in our equipment and any safety risks that alleged failure may present. We are committed to the safe delivery of electricity to our customers and will continue our investigation to determine if mitigation steps are necessary. In an effort to assist with your analysis, we have provided you copies of third party expert reports and internal investigative analysis for those nine (9) matters identified by the Reno and Sparks Fire Departments. We are open to further discussions with your office and the Reno and Sparks Fire Departments to further the development of this analysis.

We appreciate your time and efforts in this important matter.

Sincerely,

Mary Simmons
Vice President Community Strategy

Event Not Involving the Meter-Meter Still in Place

As described below, the following event did not involve a meter at all.

Location Address	Date of Install	Date of Event	Investigation Findings
1521 G Street – Sparks	6/18/2012	12/16/2012	This event did not involve a smart meter. The meter that is alleged to have been involved with this event is the same meter that was originally installed on June 18, 2012, and is the meter still installed and functioning today. The meter is definitively ruled out as point of initiation. This event resulted from a problem with the customer owned panel. When NV Energy responded, the customer was notified that he needed to replace or repair the panel. NV Energy advised the customer of the need to repair the panel and then removed the meter to allow the customer to repair the panel . After the customer completed the necessary repairs, NV Energy reinstalled the same meter that had previously been installed at the residence. It is unknown to NV Energy as to why this continues to be referred to as a meter event.

Structure Fires-Meter Functioned After Initiation, Confirming Other Cause

An NV Energy smart meter has not resulted in a structure fire. The following two events involved a structure fire where the electric meter was initially considered as a possible cause of the fire. As discussed below, and in greater detail in the third party expert reports, the electric meters have been positively eliminated as a possible cause of the fire events. In both of these cases the electric meter was burned into by an external fire attack. In both cases the meter was functioning well after the fire was underway. Scientific analysis has conclusively determined that the electric meter could not have been the cause or origin in either of these structure fire events.

Location Address	Date of Install	Date of Event	Investigation Findings
200 E. Lincoln Way – Sparks	3/12/2012	12/30/2012	The meter has been positively eliminated as a possible source of this fire. The meter in this event was attacked by outside fire sources. This was confirmed by the fact that the meter continued to function after the incident was reported. This was further proven through arc mapping and other forensic investigation at the scene. Under the scientific method, the meter was ruled out as point of initiation. See Third Party Forensic Report for this address.
7625 Rhinestone Circle - Reno	8/21/2012	7/27/2014	The meter at this residence continued to function after the house fire was reported to 911 dispatch (call indicates visible flames on side of home). This timing confirms that the meter did not fail prior to fire being present at the residence. Analysis by a third party forensic expert concluded it was physically impossible for the meter to be the point of initiation. See Third Party Forensic Report for this address.

Consumed Meters-Contained to the Electrical Panel, No Structure Fire

The following six events involve consumed meters that were contained to the electric panel, with soot discharge in the surrounding area. The investigative findings for each of the events are detailed below.

Location Address	Date of Install	Date of Event	Investigation Findings
6074 Torrington Dr. - Reno	1/31/2012	11/11/2012	This event was a failure of customer owned equipment not the meter. This event was inspected and evaluated by a third party forensic expert. The scientific conclusion reached by the third party forensic expert identified the cause of failure as a failure of the jaws in the customer owned panel (i.e. a "hot socket"). See Third Party Forensic Report for this address.
6 E. H St. – Sparks	4/20/2012	11/30/2012	Evidence points to water intrusion as cause of failure. Markings on meter ring and on panel cover suggest water intrusion. Heavy rains preceding failure.
7255 Windswept Loop – Sparks	1/23/2013	6/11/2013	No evidence pointing to a failure of the meter. A joint inspection involving the Sparks Fire Department, the Federal Bureau of Alcohol Tobacco and Firearms ("ATF") and NV Energy was conducted in this matter. Following this inspection, it was determined that it was unlikely that any internal failure of the meter was a cause of a fire. See Third Party Forensic Report for this address.
1210 Firefly Ct. - Reno	4/4/2012	5/21/2014	Evidence points to water intrusion as the cause of failure. Very little of the meter remains to form further conclusions. Slight evidence of water intrusion - whitish residue on security ring. Heavy rains preceding failure.
160 Arletta St. - Reno	6/5/2012	6/11/2014	Under Investigation. This is an apartment building unit with the meter installed on a group panel. NV Energy was able to review this meter for the first time at the joint inspection on August 27, 2014. This meter was not subject to any x-ray examination and the Reno Fire Department still has possession of the meter and panel, so NV Energy cannot facilitate additional testing at this time. NV Energy needs to gather

			additional information regarding the facts preceding the event. This residence had been disconnected in the day(s) prior to the event. At time of reconnect the customer described flickering lights. The customer of record told NV Energy he had run an extension cord from his neighbor's residence to his apartment while he was out of power. It is believed that the extension cord was connected at the time service was restored. One area of investigation that needs to be explored involves a possible back feed to the system at the time of power restoration as a result of the extension cord issue.
4742 El Cap Ct. - Sparks	5/23/2012	6/12/2014	Under Investigation. NV Energy was able to review this meter for the first time at the joint inspection on August 27, 2014. This meter was not subject to any x-ray examination and the Sparks Fire Department still has possession of the meter and panel, so NV Energy cannot facilitate that testing at this time. NV Energy needs to gather additional information regarding homeowner statement surrounding events preceding the event. NV Energy has second hand information that the homeowner was working in the garage at time of incident and that the meter failed following the slamming of the garage door by wind gust on the same wall that houses the meter. NV Energy needs information concerning the force of the slammed door, the type of wall, whether the force was sufficient to jar the panel and/or the tension clips etc.

8601 Six Forks Road
Seventh Floor
Raleigh, NC 27615 USA
www.sensus.com

SENSUS

October 2, 2014

Gary Smith
NV Energy
1 Ohm Place
Reno, NV 89502

Dear Gary,

When a failure event from inside the meter breaches the meter's outer plastic cover, the meter cannot still function or transmit any readings to the TGB. In fact, once the UL94-HB rated plastic outer meter cover has been burnt through, the meter will have lost any capability to transmit.

For any transmission from the meter to occur, the radio and other internal components of the meter must be intact and functioning. These components cannot survive in a meter that has been internally consumed.

Additionally, the radio and other internal components work at a low DC voltage. When a fire is present in the meter, these components are very rapidly subjected to a high AC voltage which damages the transmitter and micro-controller components and prevents them from functioning instantly.

Breach failures of meters are very rapid events and no more than a few seconds passes between the instigation of the internal failure and the total destruction of the meter. In all cases, the time between the internal fire commencing and the meter being reduced to a state where it cannot function is a matter of seconds.

Regards,

Anne Jackson
Electrical Engineer

NVEnergy

October 7, 2014

Chief Peter J. Mulvihill, P.E.
Nevada State Fire Marshal
107 Jacobsen Way
Carson City, NV 89711

Dear Chief Mulvihill:

Thank you for providing us the two fire reports from the Gardnerville, Nevada area. As we discussed in our prior correspondence, the safety of our customers, employees and equipment is our number one priority. Consistent with our prior communication to your office, we have attached a summary sheet discussing the two events from Gardnerville. As you are aware, both of those events were contained to the meter panel, and in fact neither event exhibited damage beyond the panel itself.

The event at 1369 N US 395 Hwy involved a third party pressure washing a building. During the process, the pressure washing and water intrusion caused the meter to fail, though it stayed contained to the panel. The event at 1521 Church Street was a failed meter contained to the panel. That event showed evidence consistent with a hot socket condition. Please see the attached summary sheet for additional details.

We appreciate your time and efforts in this important matter.

Sincerely,

Mary Simmons
Vice President Community Strategy

NVEnergy

Consumed Meters-Contained to the Electrical Panel, No Structure Fire

The following two events involve consumed meters that were contained to the electric panel, with soot discharge. The investigative findings for each of the events are detailed below.

Location Address	Date of Install	Date of Event	Investigation Findings
1369 US Highway 395 N, Gardnerville	3/5/2013	7/1/2013	This failure was caused by water introduced to the panel and meter during pressure washing of an external wall. During the process, the pressure washing and water intrusion caused the meter failure. The failure was contained to the panel as evidenced by the photographs attached to the fire report.
1521 Church St, Gardnerville	11/5/2012	6/4/2013	This was a failure contained to the electric panel. As evidenced by the photographs attached to the fire report there was no smoke or soot damage beyond the panel itself. This failure exhibited conditions consistent with those seen in a hot socket condition. The meter and electric panel were replaced.

ATTACHMENT D

6074 Torrington Drive, Reno
November 11, 2012 Incident

D.1 Reno Fire Department Report

D.2 NV Energy Documents

ATTACHMENT D.1

6074 Torrington Drive, Reno
November 11, 2012 Incident

Reno Fire Department Report

Incident Report

2012-0030109 -000

Reno Fire Department

Basic	
Alarm Date and Time	09:00:21 Sunday, November 11, 2012
Arrival Time	09:00:21
Controlled Date and Time	
Last Unit Cleared Date and Time	09:00:46 Sunday, November 11, 2012
Priority Response	Yes
Fire Department Station	03
Shift	A
Incident Type	1111 - Building fire (Under Investigation)
Initial Dispatch Code	FIRST
Aid Given or Received	N - None
Action Taken 1	75 - Provide equipment
Casualties	Yes
Apparatus - *Suppression*	1
Personnel - Suppression Personnel	4
Property Loss	$1,000.00
Contents Loss	$0.00
Property Value	$1,000.00
Contents Value	$0.00
Other Injuries	1
Detector Alerted occupants	2
Property Use	419 - 1 or 2 family dwelling
Location Type	Address
Address	6074 TORRINGTON DR
City, State Zip	Reno, NV 89501
District	03
Directions	6074 TORRINGTON DR
Map Page	EE36NW

Person Involved - Chisel, Robert	
Civilian Fire Casualty	Yes
Name Prefix	MR
Last Name	Chisel
First Name	Robert
Street Address	6074 TORRINGTON DR
City, State Zip	Reno, NV 89501
Phone	7758274998

Fire	
Structure Type	1 - Enclosed building
Number of Residential	1
Area of Origin	76 - Wall surface: exterior
Heat Source	13 - Arcing
Item First Ignited	00 - Item, Other
Type of Material	4 - Plastics
Cause of Ignition	3 - Failure of equipment or heat source
Contribution To Ignition 1	NN - None

Structure

Printed: 11/12/2012 13:52:30

Structure	
Status	2 - In normal use
Floor of Origin	1
Stories Above Grade	1
Total Square Feet	1200
Fire Spread	4 - Confined to building of origin
No Flame Spread	1
Detector Presence	1
Detector Type	1 - Smoke
Detector Power	4 - Hardwire with battery
Detector Operation	1 - Fire too small to activate detector
AES Presence	3

Civilian Casualty - Chisel, Robert	
Name Prefix	MR
First Name	Robert
Last Name	Chisel
Street Address	6074 TORRINGTON DR
City, State Zip	Reno, NV 89501
Phone Number	7758274998
Gender	1 - Male
Severity	2 - Moderate
Injury Date and Time	November 11, 2012
Cause of Injury	1 - Exposed to fire products
Activity When Injured	3 - Fire control
Primary Body Part Injured	9 - Multiple parts
Affiliation	1

Apparatus - T3	
Apparatus ID	T3
Response Time	0:05:46
Apparatus Dispatch Date and Time	08:24:13 Sunday, November 11, 2012
En route to scene date and time	08:24:14 Sunday, November 11, 2012
Apparatus Arrival Date and Time	08:30:00 Sunday, November 11, 2012
Apparatus priority response	Yes
Number of People	4
Apparatus Use	1
Apparatus Action Taken 1	75 - Provide equipment
Apparatus Type	12 - Truck or aerial
Personnel 1	1568 - FLENNER, Jim A Position: CAPT
Personnel 2	5800 - BELTON, Jason J Position: OA
Personnel 3	7648 - PATOCKA, Paul Position: FEO
Personnel 4	11350 - MUNOZ, Leonard Position: FF

Authority

Authority	
Reported By	1568 - FLENNER, Jim A 09:07:50 Sunday, November 11, 2012
Officer In Charge	1568 - FLENNER, Jim A 09:07:51 Sunday, November 11, 2012
Reviewer	- ,

Narratives	
Narrative Name	CAD Narrative
Narrative Type	CAD Narrative
Author	- ,
Narrative Text	003010930109
Narrative Name	T3
Narrative Type	Incident
Narrative Date	09:04:06 Sunday, November 11, 2012
Author	1568 - FLENNER, Jim A
Author Rank	CAPT
Author Assignment	1
Narrative Text	□3 resp to loc to assist Insp 7 w/ determination if heat in the wall, arr to find Insp 7 w/ NV Energy o/s of 2 story residential structure. Outside meter melted w/ dry chem powder over area. Survey w/ TIC, no unusual heat seen, 5 second handprint on wall clearly seen through TIC. Survey interior of same wall, again handprint clearly seen, temperature shadows of studs seen as well. No heat seen tracking through walls. No other req from Insp 7, T3 returns. J.Flenner 1568
Narrative Name	Inspector 7
Narrative Type	Incident
Narrative Date	12:41:20 Monday, November 12, 2012
Author	6466 - PALMER, Tray L
Author Rank	FP2
Author Assignment	3
Narrative Text	

I, Tray PALMER, Fire Investigator for the Reno Fire Department was dispatched to the above address by Fire Chief Michael HERNANDEZ at approximately 0750 hours. HERNANDEZ explained that there was a flash fire at a power box involving City of Reno Finance Director Robert CHISEL, who was now at the hospital being treated.

I arrived on scene. NV Energy was also on scene and informed me that the power was still energized to the box. I conducted an exterior survey. I requested Truck 3 to check for fire extension in the wall. No extension was found.

Area of Origin:

The fire occurred to a single family dwelling of wood frame construction. The fire was contained to the exterior west wall (B side). A "V" pattern indicated upward and outward burning with the lowest level of burning at the service entry power box. Blistered paint directly above the service entry meter, indicated that the fire encroached from the meter itself. The heaviest charring occurred to the "smart" meter which was immediately left of

Narratives

the breaker box. The metal facing behind the meter was exposed and filled with dry chemical extinguishing residue. The clear plastic face of the meter was melted and on the ground, encasing the charred circuits and wiring of the meter.

Interviews:

I interviewed the owner of the property Robert CHISEL. The following is what CHISEL said:

CHISEL went to the power box because the breaker to his fireplace had tripped. He reached to reset breaker # 21 and the "Smart" meter started to arc. The meter cover popped off burning CHISEL on the hand and face. He ran inside and returned with a fire extinguisher to extinguish the fire. CHISEL then responded to the Emergency Room with his wife for treatment.

I interviewed NV Energy Supervisor Art CHESTERFIELD who was on scene. CHESTERFIELD said that this was about the sixth "smart" meter he has seen fail, but acknowledged that this was the first one he has seen involving injury. CHESTERFIELD said when I was done with the investigation he was going to replace the meter and repair the damage. I advised CHESTERFIELD that the meter would have to be kept by the power company in case an insurance claim was to be filed.

Conclusion:

Burn patterns and witness statement indicate that this fire started in the "smart" meter from arcing caused by equipment failure. I will be working with NV Energy on their investigation to find out what failed. I will also research the other incidents that involved these meters to identify any potential problems that the public should be aware of.

No further at this time.

End of Report

City Reno Navigator

- E911 Roads
- E911 Roads with Names
- Parcels Multi Level
- Parcels

N

SCALE 1 : 793

50 0 50 100 150

FEET

WASHOE COUNTY QUICK INFO (Summary data may not be complete representation of property) 11/12/2012

Owner Information & Legal Description

APN **040-433-10**

Card 1 of 1

Situs 6074 TORRINGTON DR

Owner 1 CHISEL, ROBERT D & GIGI H

Mail Address 6074 TORRINGTON DR
RENO NV 89511

Rec Doc No 1416602 **Rec Date** 07/30/1990

Prior Owner

Prior Doc CHK 07/01/1990

Keyline Desc LEWIS LAKESIDE UNIT TWO

Subdivision LEWIS LAKESIDE 2

Lot 95 **Block** A **Sub Map#**

Record of Survey Map **Parcel Map#** 0

Section **Township** 19 **Range** 19 **SPC**

Tax Dist 1015 **Add'l Tax Info** **Prior APN**

Tax Cap Status 3 PCT Qualified Primary Residence

Building Information

Quality R035 AVG/GOOD **Bldg Type** Sgl Fam Res

Stories ONE

Year Built 1990 **Square Feet** 1,677

W.A.Y. 1993

Bedrooms 3

Square Feet does not include Basement or Garage Conversion Area.

Click here for Building Square Footage, Special Feature and Yard Item Details.

Full Baths 2 **Finished Bsmt** 0

Half Baths 0 **Unfin Bsmt** 0

Fixtures 11 **Bsmt Type**

Fireplaces 1 **Gar Conv Sq Foot** 0

Heat Type FA **Total Gar Area** 606

Sec Heat Type **Gar Type** GARA

Ext Walls HARDBOARD/FR **Det Garage** 0

Sec Ext Walls **Bsmt Gar Door** 0

Roof Cover CONCRETE TIL **Sub Floor** WOOD

%Incomplete 0 **Frame** STUD FRAMED

Obso/Bldg Adj 0 **Units/Bldg** 1

Construction Mod 0 **Units/Parcel** 1

Last Activity 08/07/2012 **Last Permit** 05/13/2010

Land Information

Land Use 020 **Zoning** SF6 **Sewer** MUNI **Value Year** 2013 **Neighborhood** OAKC

Size 8668 SF **Water** MUNI **Street** PAVED **Reason** Reappraisal **Neighborhood Map** **OA Neighborhoods Map**

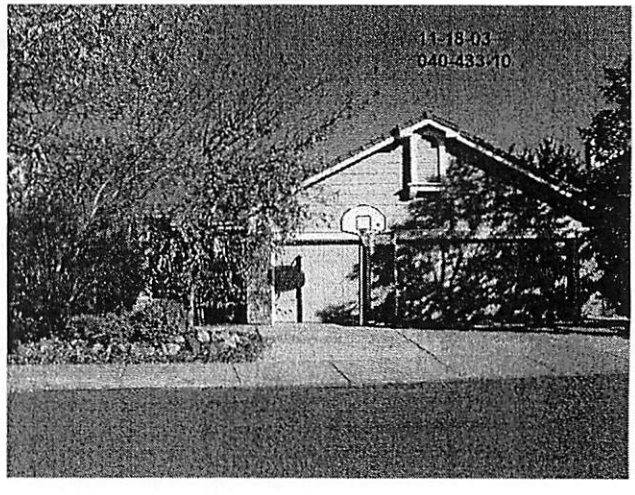
Valuation Information	2012/13 FV	2013/14 VN
Taxable Land Value	36,100	21,400
Txble Improvement Value	145,405	144,487
Taxable Total	181,505	165,887
Assessed Land Value	12,635	7,490
Assessed Improvement Value	50,892	50,570
Total Assessed	63,527	58,060

The 2013/2014 values are preliminary values and subject to change.

Sales/Transfer Information/Recorded Document

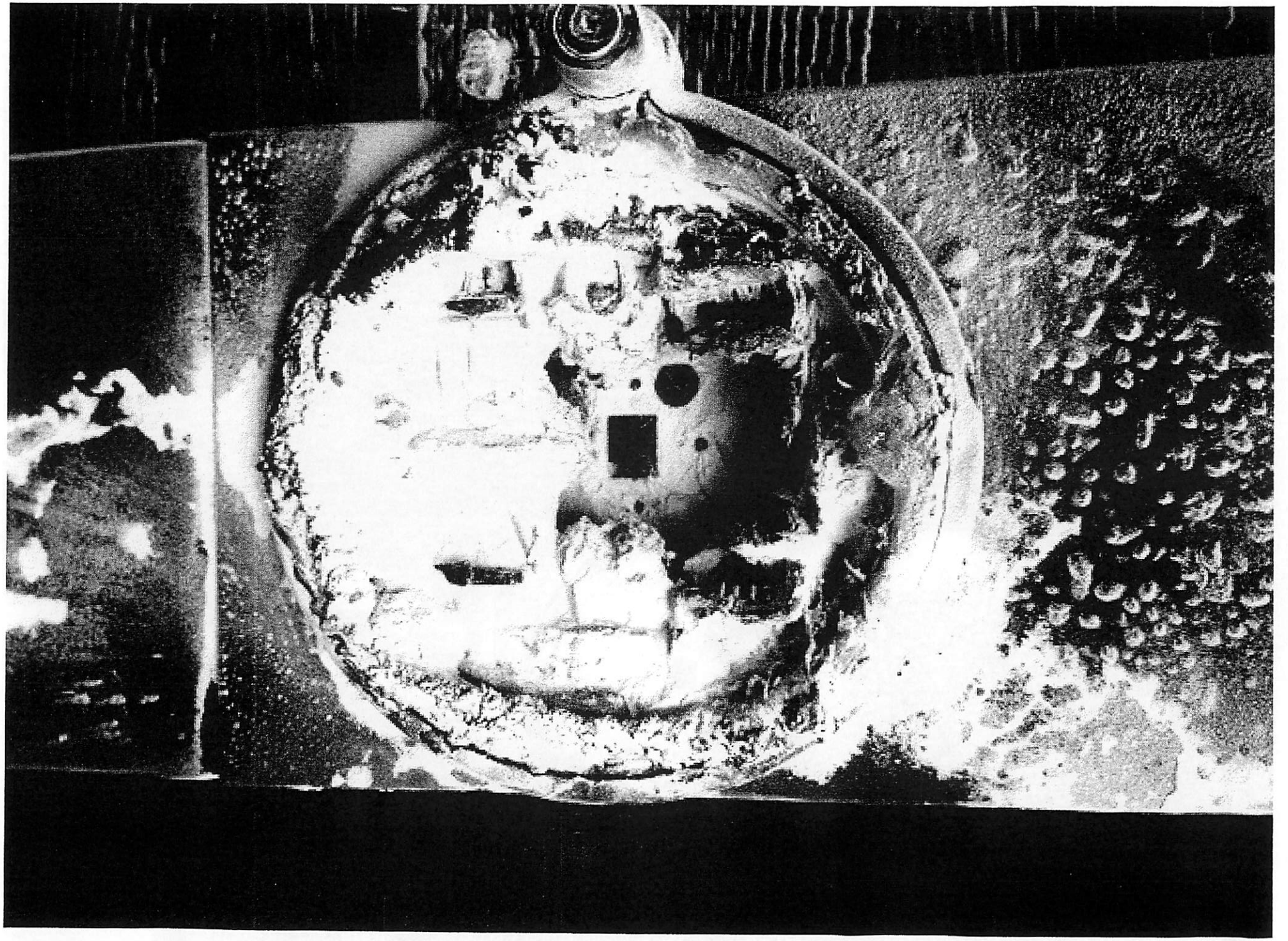
V-Code	LUC	Doc Date	Value	Grantor
		07/30/1990	0	
2D	020	07/01/1990	144,497	

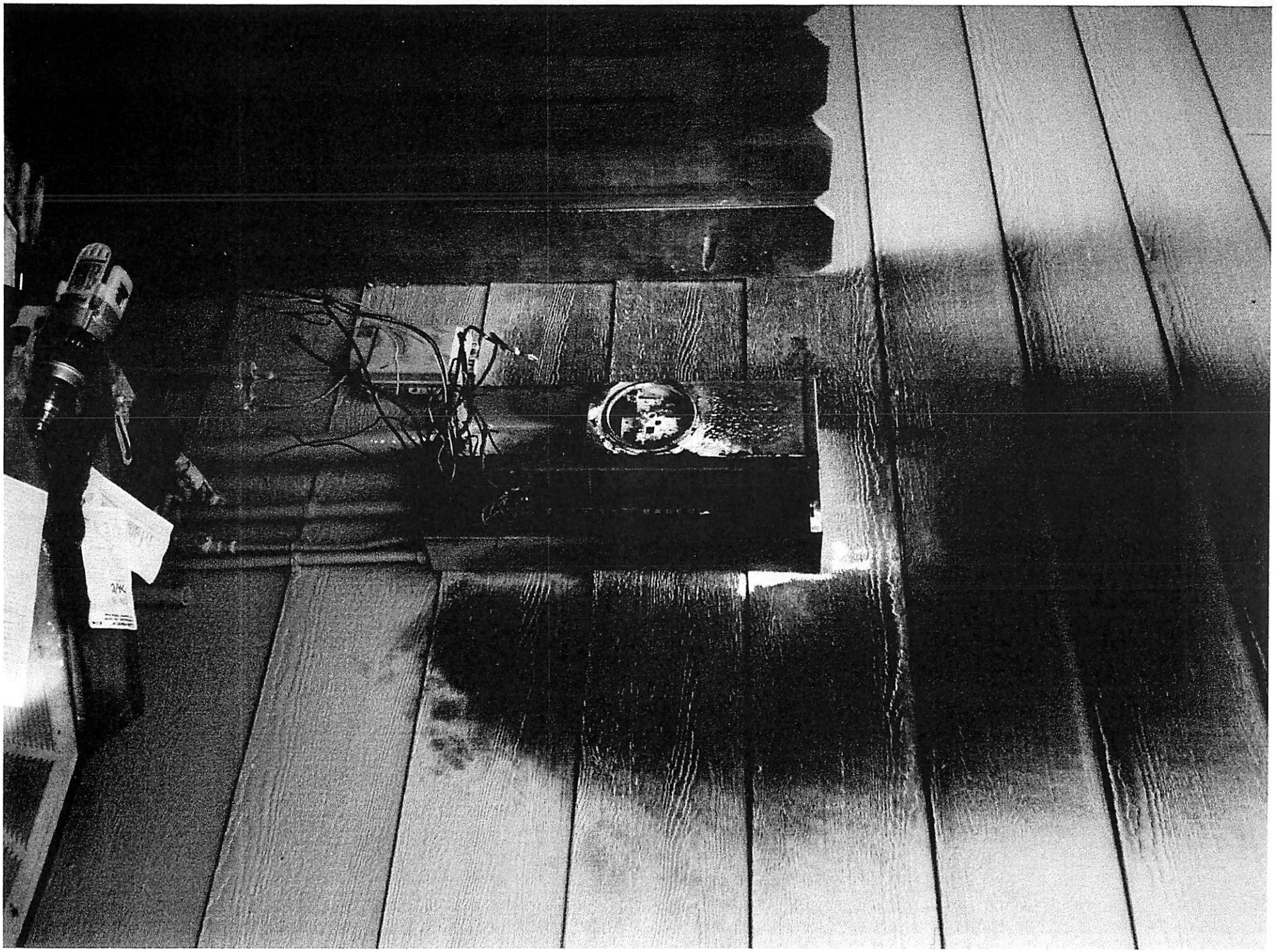
All data on this form is for use by the Washoe County Assessor for assessment purposes only. Zoning information should be verified with the appropriate planning agency. All Parcels are reappraised each year.



sketch code descriptions

If the property sketch is not available on-line you can obtain a copy by calling (775) 328-2277 or send an email to **exemptions@washoecounty.us** with '**Sketch Request**' in the subject line. Please include the APN.





ATTACHMENT D.2

6074 Torrington Drive, Reno
November 11, 2012 Incident

NV Energy Documents

ENGINEERING FORENSICS EXPERTS LLC
George J. Hogge PE
3136 E. Leland Circle
Mesa, AZ 85213
Phone: (602) 721-4202 Fax: (480) 664-7589
www.efxforensics.com

ENGINEERING EXAMINATION and ANALYSIS REPORT

File No: 2706-1119

Prepared for:
NV Energy
6226 W. Sahara Avenue, MS #3A
Las Vegas, NV 89146
Attn: Brandon M. Barkhuff, Assistant General Counsel

Claim No: SPPC 2012 02486
Date of Occurrence: 11/11/12
Location of Occurrence: 6074 Torrington, Reno, NV

Dates of Examinations:
1. Evidence Examination: 11/19/12

CONTENTS:

(A) SUMMARY:
(B) ENCLOSURES:
(C) INSTRUCTIONS:
(D) BACKGROUND:
(E) EVIDENCE EXAMINATION:
(F) ANALYSIS:
(G) CONCLUSION:
(H) COMMENTS:
(I) PHOTO SHEETS
APPENDIX 1. WEATHER DATA FROM NOAA FOR MONTH OF NOVEMBER, 2012 AT THE RENO, NV AIRPORT.

The investigation activities and reporting have been conducted in accordance with the following standards among others:

- NFPA 921-2011 Edition "Guide for Fire and Explosion Investigations"
- ASTM E620–04 "Standard Practice for Reporting Opinions of Scientific or Technical Experts"
- ASTM E678–07 "Standard Practice for Evaluation of Scientific or Technical Data"
- ASTM E860–07 "Standard Practice for Examining And Preparing Items That Are Or May Become Involved In Criminal or Civil Litigation"
- ASTM E1020–96 (Reapproved 2006) "Standard Practice for Reporting Incidents that May Involve Criminal or Civil Litigation"
- ASTM E1188–05 "Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator"
- ASTM E2332–04 "Standard Practice for Investigation and Analysis of Physical Component Failures"

(A) SUMMARY:

It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the proximate cause of the arc flash was the failure of the meter jaws of the Cutler Hammer electrical service panel.

Utilizing the Scientific Method, the following possible causes were evaluated and eliminated as being impossible or unlikely:

- Installation error of the meter.
- Tampering by any individual.
- Failure or defect in the Sensus meter.
- Voltage surge from source.
- Current surge due to turning on circuit breaker.

(B) ENCLOSURES:

1. Forty three (43) color images of evidence examination (from digital photographs) with descriptions.
2. Itemized invoice for Forensic Engineering services to date.

(C) INSTRUCTIONS:

Original instructions were received from Mick Jadlowski CFI representing NV Energy for George J. Hogge PE, Principal Electrical Engineer to conduct a non-destructive Engineering Examination of the artifacts retained to confirm or negate any electrical or mechanical failure as the cause of an arc flash.

Further instructions were received from Brandon M. Barkhuff, Assistant General Counsel of NV Energy to provide a written Engineering Report.

(D) BACKGROUND:

An Origin and Cause investigation was conducted by Mick Jadlowski CFI, Certified Fire Investigator of Rimkus Consulting. Mick Jadlowski CFI found that the origin of the arc flash was in the vicinity of the electrical service mounted to the exterior wall of the house.

According to information given to EFX, the homeowner had gone to the service panel on the exterior of his home to turn on a circuit breaker that controlled a circuit to a gas fireplace. Apparently, the circuit breaker had been off for some time. Reportedly, when he turned on the breaker he heard a buzzing noise and then an "explosion" occurred at the meter.

The "smart" electric utility meter manufactured by Sensus had been installed to replace an old type of meter on January 31, 2012 as part of a typical utility upgrade program. There were no reports of any issues with the old meter and no reports of any problems or issues during or subsequent to the installation during the 9½ months up until the date of incident on November 11, 2012.

NV Energy contractors subsequently installed a new electrical service panel and retained all damaged artifacts for the examination. They reportedly tested the circuit associated with the breaker the homeowner had been turning on and found 7.2 amps of load current.

According to information given to NV Energy, an extensive remodel of the house was done about 2 years prior to the incident. No details were given of the electrical construction or alterations done at that time.

(E) EVIDENCE EXAMINATION:

An Electrical Engineering examination of the evidence was conducted on November 19, 2012 at the NV Energy facility in Reno, NV. Present were George J. Hogge PE, Principal Electrical Engineer of Engineering Forensics Experts LLC and Mick Jadlowski CFI, Certified Fire Investigator of Rimkus Consulting. Also present were representatives for NV Energy and Sensus.

A number of digital photographs were taken by EFX during the evidence examination. Selected photographs are attached below. Some of the attached photos might be rotated and/or cropped for clarity, however all photos are stored by EFX in their original digital format.

The evidence was presented wrapped in large plastic bags and taped securely (Photo 1). The artifacts consisted of an all in one electrical service panel featuring a utility section with meter jaws and loop and a load center section with main and branch circuit breakers (Photos 2-3). All but one of the branch circuit breakers had been removed from the panel and were found loose in the utility section (Photo 4). The service panel and all circuit breakers were manufactured by Cutler Hammer, which is a subsidiary of the Eaton Corporation. There was nothing remarkable about any of the branch circuit breakers (Photos 6-7). The branch breakers found in the panel were HACR (Heating and Air Conditioning) rated and included:

2 – 40 amp 2-pole
1 – 30 amp 2-pole
10 -20 amp 1-pole
6 – 15 amp 1-pole

The main circuit breaker was a 2-pole, 100 amp breaker typically rated at 10,000 AIC (Photo 9) and the buses were consistent with a 100 or 125 amp rated panel at 120/240 volts. None of the breakers were found tripped, however the positions of the breaker handles at the time of the examination were not considered relevant due to the removal and disassembly.

The legend found with the panel showed typical connections of circuits to the branch circuit breakers (Photo 5). The information from the scene was that it was the breaker in space 21 that the homeowner turned on just before the "explosion" occurred. That breaker is labeled in the legend as "GENERAL PLUGS + LIGHTS - FIREPLACE". It is not known what other loads were on that circuit besides the fireplace and also it is not known how the fireplace is configured other than that there was reportedly a circulation fan associated with the fireplace. The NV Energy contractor stated that they tested the circuit from that breaker before re-energizing and found no anomalies, and the current draw was then measured at 7.2 amps, which is acceptable for a 15 amp circuit breaker.

There was nothing remarkable about the buses and bus stabs at the rear of the circuit breaker panel (Photo 8). The space for circuit 21 was labeled and documented (Photo 10)

and there was nothing remarkable about the bus stab in that space that the circuit breaker had been attached to.

The utility service lateral to this panel had been supplied through underground conduit up into the bottom of the panel (Photo 11) and had been terminated to typical mechanical lugs in the utility side of the panel (Photo 12). There was no evidence of any resistive heating or other anomaly at the utility connections and there was still residue from the anti-oxidant compound indicative of proper termination of the aluminum lateral conductors.

The greatest damage was centered at the line (incoming) side meter jaws at the meter loop (Photos13-14). Photo 14 is repeated below as Figure 1 with some descriptions to assist the reader. Closer views of the line and load side meter jaws are shown in Photos 15-22. The lower load side meter jaws are mostly undamaged (Photos 15-16). The upper left meter jaw is mostly missing (Photos 17-18). A large segment of that upper left jaw was found in the bottom of the panel with severe melting at the jaw clips (Photos 19-20). The upper right meter jaw has significant melting on the side towards the upper left jaw (Photos 21-22). It is important to note that there is still a portion of the meter stab still in both upper jaws. The meter "stab" is the male prong that extends from the rear of the meter and is "stabbed" into the meter jaws of the service panel to complete the connection from the utility to the main circuit breaker and the house wiring.

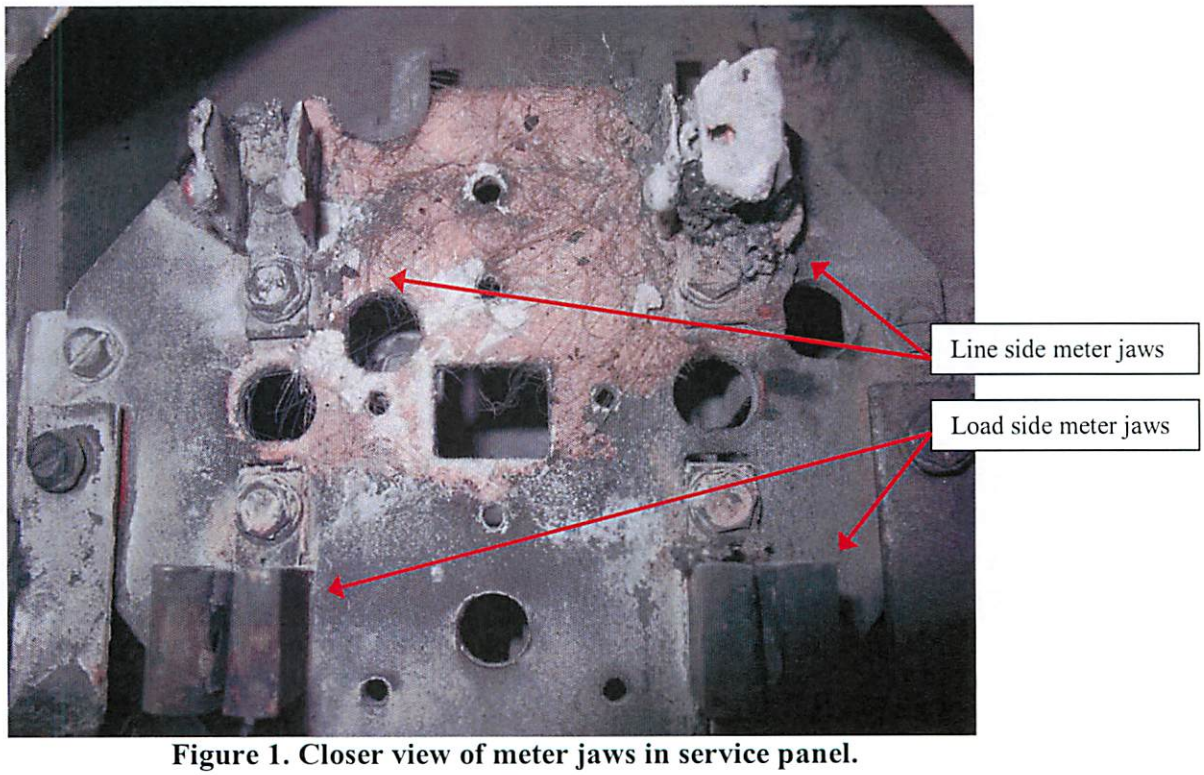


Figure 1. Closer view of meter jaws in service panel.

The remains of the lower meter stabs or male prongs were found in the debris inside the panel and segments of these prongs were present on the portion that would have been inside the lower meter jaw clips (Photos 23-24).

The plastic remains of the subject meter base plate show the center portion melted away consistent with high temperatures (Photos 25-26). The remaining recovered portion of the meter is a melted mass with some electronic components still visible (Photos 27-29). The visible internal meter components appear to be relatively protected (Photo 29).

An exemplar Sensus smart meter was provided for the examination (Photos 30-35). The rear view shows the meter stabs or prongs that are inserted into the jaws of the service panel meter loop when the meter is installed (Photos 31-32). Photo 35 shows a top view of the exemplar meter with the clear cover removed, showing that the stab prongs extend through into the interior where they are separated by a plastic barrier.

The lock ring associated with the subject meter was examined (Photos 36-37). There was no evidence of any tampering to the lock mechanism of the lock ring. Photos 38 and 39 show images of the panel and meter immediately after the incident with the meter locking ring and the seal still in position. Photo 39 is repeated as Figure 2 below with labels to assist the reader's understanding.

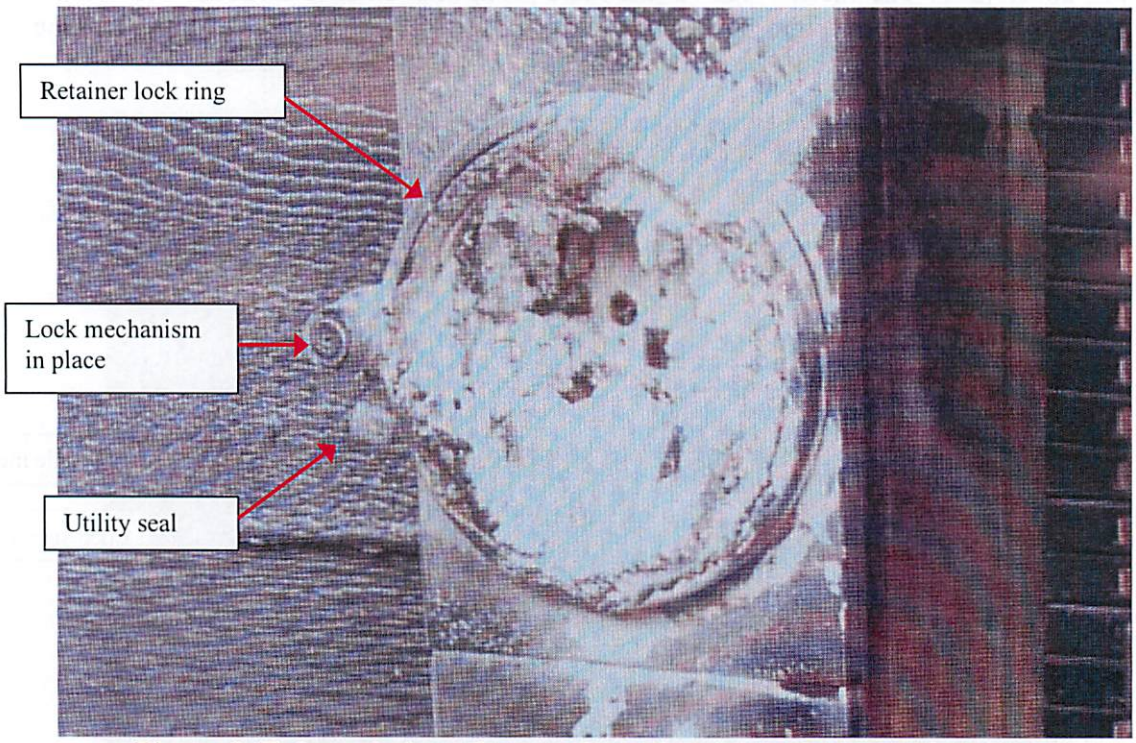


Figure 2. Enlarged view of scene photo showing lock ring and seal in place.

(F) ANALYSIS:

The damages to the meter and meter jaws are consistent with a high current arcing event. The copper portions of the meter stabs and the spring steel portions of the meter jaws are melted away. The melting temperature of copper is 1981°F[a] and the melting temperature of steel is about 2,760 °F[a]. These metals were severely melted, indicative of a high current fault. The temperature of a copper arc starts around 5100 degrees K[b] (about 8,700 F) and can get to 35,000 F with larger currents.

The "explosion" was actually the result of the arc flash (also referred to as arc blast) that occurred due to the fault current between the line side meter jaws. These jaws are energized at 240 volts relative to each other when the service is in use. The severe arc related melting on the jaws was clearly caused by a high current fault event. The available fault current at the meter is limited by the transformer and service lateral supplying this service. The typical available fault current from a pad mounted utility transformer and the associated underground lateral is well below 10,000 AIC, which is why most residential service panels and circuit breakers are rated for 10,000 AIC. What this rating means is that the equipment can withstand fault currents of 10,000 amps without suffering physical failure (such as explosions). Typically, the only situations where this is not true is when larger than typical (lower impedance) transformers are used and the laterals are short.

The possible causes for this fault event and the resulting arc flash will be evaluated using the Scientific Method. As defined in the NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition, the proper methodology for the investigation and analysis of any fire cause is to utilize the Scientific Method:

3.3.144 Scientific Method. The systematic pursuit of knowledge involving the recognition and formulation of a problem, the collection of data through observation and experiment, and the formulation and testing of a hypothesis.

The following flow chart is shown in NFPA 921 to illustrate the basic premise of the scientific method to develop and test hypotheses to determine the cause of a fire:

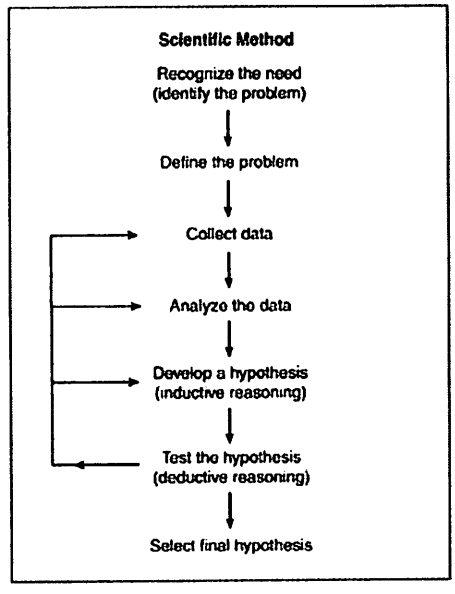


FIGURE 4.3 Use of the Scientific Method.

INSTALLATION:
This meter was installed into an existing panel on January 31, 2012, about 10½ months prior to the arc event, which means it has survived through almost 4 seasons and many thermal cycles. If the meter was installed incorrectly to cause such an event, that event would have very likely occurred during or very quickly after the installation activities and not almost 1 year later. As shown in Figure 3 below, the meter stab prongs were placed securely into the jaws of the panel during installation. Error during installation was eliminated as a possible cause of the arc flash event.

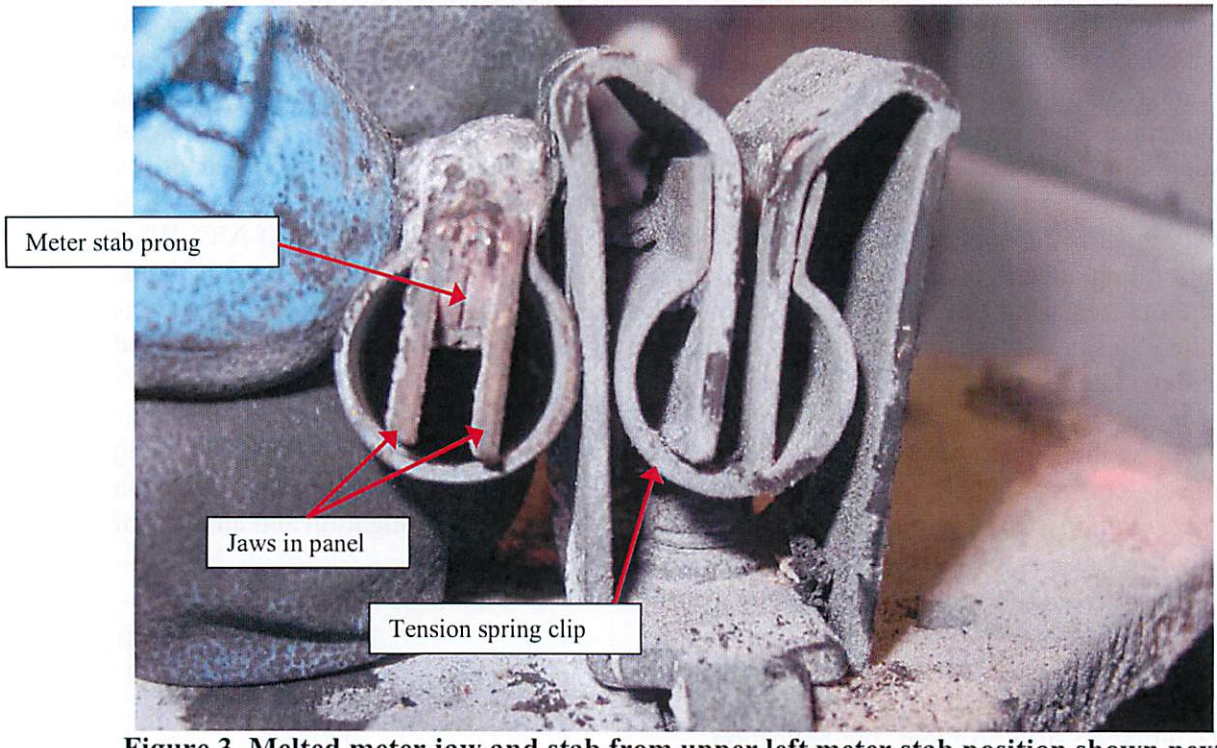


Figure 3. Melted meter jaw and stab from upper left meter stab position shown next to lower jaw.

TAMPERING:
The lock ring was found securely mounted onto the meter base and meter loop of the service panel. The scene photograph shows that the lock mechanism and the security seal were still present and intact after the arc flash occurred. Tampering by any individual was eliminated as a possible cause of the arc flash event.

FAILURE OR DEFECT IN METER:
Again, the Sensus meter was installed into an existing panel on January 31, 2012, about 10½ months prior to the arc event, which means it has survived through almost 4 seasons and numerous thermal cycles. If the meter had some internal defect to cause such an event, that event would likely have occurred during or very quickly after the installation activities where it was energized to 240 volts and not almost 1 year later. It is unlikely that any internal failure or defect of the meter would cause this event after that much time.

VOLTAGE SURGE FROM SOURCE:
The meter jaws and stab prongs are energized at 240 volts during normal operations of the service equipment. These jaw sets are separated by about 3 inches of space as well as a dielectric plastic barrier. The voltage level required to cause current to jump that distance through air would be tens of thousands of volts even without a barrier. If there had been such a magnitude of surge, there would be widespread damage to the electrical systems and any appliances with electronics of this house and any others in the vicinity. A voltage surge was eliminated as a possible cause of the arc event.

CURRENT SURGE DUE TO TURNING ON CIRCUIT BREAKER:
The branch circuit breaker that was reportedly turned on just before the arc flash was a 15 or 20 amp breaker and was most likely a 15 amp which is typical for a receptacle and lighting circuit in a residential application. There is also the 100 amp main circuit breaker in series that is upstream protecting the buses and branch circuit breakers. Either of these circuit breakers would have tripped before sufficient current was drawn to cause this failure due to overcurrent at normal meter jaws. While it appears that the action of turning on the circuit breaker could have been a trigger that precipitated the failure, it is not possible that sufficient current was drawn to cause this catastrophic failure at normal meter jaws. If the 7.2 amps measured by the rehab contractor on that circuit were entirely drawn by the blower motor of the fireplace, then the momentary "locked rotor" current that would be typical on startup could be up to 6 times that amount or about 43 amps. Circuit breakers are designed to allow minor short duration overcurrents such as this to pass in order to allow motor startup without nuisance tripping. Most circuit breakers won't trip instantaneously until 200-300 percent or more of their rated current flows. Again, this is common and could not possibly cause such a fault on normal meter jaws.

FAILURE OF THE METER JAWS ASSOCIATED WITH THE CUTLER HAMMER SERVICE PANEL:
The melting of the meter stab prongs and the associated line side meter jaws of the panel is very pronounced where the prongs interface with the jaws. This Forensic Electrical Engineer has found many similar failures of such interfaces as a Journeyman Electrician and Electrical Contractor.

The meter jaws of the Cutler Hammer service panel rely on spring tension to keep good contact with the stab prongs of the meter assembly. If that spring loses its tension due to thermal cycles or defect, then any current flowing through the interface will begin to cause resistance heating. This exacerbates the typical thermal cycles experienced due to current and ambient temperature fluctuations as well as the weakness of the tension springs.

A check of the NOAA (National Oceanic and Atmospheric Administration) weather history in their Quality Controlled Local Climatological Data found that November 10th and 11th of 2012 were unseasonably cold days with temperatures of 12 and 11 degrees below normal as well as snow at the Reno airport weather station. The night time low for November 10 was 22°F and the high for November 11 was 43°F. (See Appendix 1 below). It is likely that the homeowner was using a significant amount of electrical

energy over that time period. The meter jaw interface was likely nearing failure when the homeowner closed the circuit breaker and instantly caused a minor current surge that apparently precipitated the final failure and resulted in the arcing event. The arc will cause the air in the immediate area to the ionized, which will result in large fault current between the meter jaws and the arc blast.

References:

[a] From NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition. Table 6.2.8.2.
[b]. From *Temperature of a Copper Arc, Journal of Research of the National Bureau of Standards* Vol 661, No. 1, January–February 1962. Authored by Charles H. Corliss. p.1.

(G) CONCLUSION:

It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the proximate cause of the arc flash was the failure of the meter jaws of the Cutler Hammer electrical service panel.

These conclusions were reached with reasonable scientific certainty based on:

1. The Origin and Cause investigation by Mick Jadlowski CFI
2. Forensic Examinations of the scene and evidence at the scene.
3. Examinations of the evidence artifacts in the laboratory.
4. The undersigned investigator's education, training, and experience as a Journeyman Electrician and Registered Professional Electrical Engineer.

(H) COMMENTS:

The statements and conclusions contained herein are based on the information given to and gathered by Engineering Forensics Experts at the time of this report. If additional information becomes available we reserve the right to change our conclusions.

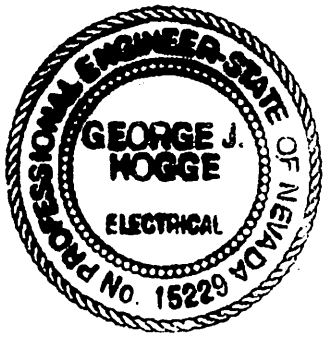
The evidence will be held in secure storage at NV Energy.

Thank you for the opportunity to be of service.

George J Hogge P.E. 12/9/12

SIGNATURE DATE

George J. Hogge PE
Principle Forensic Engineer



APPENDIX 1. WEATHER DATA FROM NOAA FOR MONTH OF NOVEMBER, 2012 AT THE RENO, NV AIRPORT.

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA

(final)

NOAA, National Climatic Data Center

Month: 11/2012

Station Location: RENO/TAHOE INTERNATIONAL AIRPORT (23185)
RENO, NV
Lat. 39.483 Lon. -119.771
Elevation(Ground): 4410 ft. above sea level

Date	Temperature (Fahrenheit) Max.	Min.	Avg.	Dep From Normal	Avg. Dew pt.	Avg Wet Bulb	Degree Days Base 65 Degrees Heating	Cooling	Sun Sunrise LST	Sunset LST	Significant Weather	Snow/Ice on Ground(In) 1200 UTC Depth	1800 UTC Water Equiv	Precipitation (In) 2400 LST Snow Fall	2400 LST Water Equiv	Pressure(inches of Hg) Avg. Station	Avg. Sea Level	Wind: Speed-mph Dir-tens of degrees Resultant Speed	Res Dir	Avg. Speed	max 5-second Speed	Dir	max 2-minute Speed	Dir	Date
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
01	62	41	52	6	33	43	13	0	0627	1659		0	M	0.0	0.00	25.57	29.96	1.6	21	5.4	26	180	22	170	01
02	65	33	49	3	30	40	16	0	0628	1658		0	M	0.0	0.00	25.63	30.08	0.5	29	1.4	18	270	8	270	02
03	70	36	53	8	M	M	12	0	0629	1657		0	M	0.0	0.00	25.72	M	M	M	1.3	13	310	9	090	03
04	73	37	55	10	M	M	10	0	0630	1656		0	M	0.0	0.00	25.86	M	M	M	1.3	14	070	9	100	04
05	74	36	55	11	M	M	10	0	0632	1655		0	M	0.0	0.00	25.86	M	M	M	2.1	17	090	14	100	05
06	75*	35	55	11	M	M	10	0	0633	1654		0	M	0.0	0.00	25.74	M	M	M	1.5	22	300	15	310	06
07	74	38	56*	12	M	M	9	0	0634	1652		0	M	0.0	0.00	25.55	M	M	M	5.6	33	250	24	220	07
08	58	35	47	4	M	M	18	0	0635	1651		0	M	T	T	25.27	M	M	M	15.9	53	220	40	220	08
09	41	29	35	-8	18	28	30	0	0636	1650		T	M	T	0.01	25.33	29.78	3.4	32	6.0	21	310	17	340	09
10	39	22	31	-12	19	26	34	0	0637	1649	SN FZFG BR	T	M	0.8	0.03	25.52	30.03	4.4	34	6.0	24	340	18	360	10
11	43	18*	31*	-11	16	26	34	0	0638	1649		0	M	0.0	0.00	25.79	30.35	0.5	17	1.1	12	280	6	290	11
12	57	25	41	-1	M	M	24	0	0640	1648		0	M	0.0	0.00	25.81	M	M	M	1.6	12	280	9	010	12
13	60	25	43	1	M	M	22	0	0641	1647		0	M	0.0	0.00	25.74	M	M	M	0.8	14	290	7	090	13
14	63	30	47	6	27	36	18	0	0642	1646		0	M	0.0	0.00	25.69	30.16	0.5	35	1.1	13	290	8	050	14
15	61	28	45	4	M	M	20	0	0643	1645		0	M	0.0	0.00	25.61	M	M	M	1.3	17	310	12	310	15
16	56	39	48	8	31	40	17	0	0644	1644	RA	0	M	0.0	T	25.53	29.95	0.9	17	2.3	17	220	14	220	16
17	54	42	48	8	39	44	17	0	0645	1644	RA	0	M	0.0	0.17	25.41	29.82	8.3	18	11.2	40	170	32	170	17
18	55	43	49	9	33	41	16	0	0646	1643	RA	0	M	0.0	T	25.53	29.96	5.5	19	9.4	43	180	36	180	18
19	57	42	50	10	32	41	15	0	0647	1642		0	M	0.0	0.00	25.66	30.11	0.9	29	2.0	16	290	12	290	19
20	61	38	50	11	29	41	15	0	0648	1641		0	M	0.0	0.00	25.55	29.96	15.8	19	16.8	52	170	44	170	20
21	61	37	49	10	33	43	16	0	0650	1641		0	M	0.0	0.00	25.58	29.97	3.1	27	11.0	40	240	31	180	21
22	56	27	42	3	M	M	23	0	0651	1640		0	M	0.0	0.00	25.82	M	M	M	1.1	9	110	8	100	22
23	58	28	43	5	M	M	22	0	0652	1640		0	M	0.0	0.00	25.83	M	M	M	0.4	14	270	6	300	23
24	64	27	46	8	24	35	19	0	0653	1639		0	M	0.0	0.00	25.69	30.18	0.3	19	0.3	9	270	7	190	24
25	60	27	44	6	M	M	21	0	0654	1639		0	M	0.0	0.00	25.59	M	M	M	1.0	14	280	7	310	25
26	58	25	42	5	M	M	23	0	0655	1638		0	M	0.0	0.00	25.64	M	M	M	0.3	14	280	6	280	26
27	52	25	39	2	22	32	26	0	0656	1638		0	M	0.0	0.00	25.65	30.14	0.3	31	0.3	10	270	6	290	27
28	49	27	38	1	M	M	27	0	0657	1637	RA BR	0	M	0.0	0.22	25.51	M	M	M	6.0	44	170	36	170	28
29	60	36	48	11	M	M	17	0	0658	1637		0	M	0.0	0.00	25.44	M	M	M	25.7	61	180	48	180	29
30	54	43	49	13	38	43	16	0	0659	1637	RA	0	M	0.0	0.42	25.39	29.79	11.6	17	15.3	59	170	41	170	30
	59.0	32.5	45.8		M	M	19.0	0.0	<-----Monthly Averages | Totals----->				M	M	0.85s	25.61	30.10	M	M	5.2	<Monthly Average				
	4.0	2.0	3.1	<----------Departure From Normal---------->											0.03										

Degree Days

	Monthly Total	Monthly Departure	Season to Date Total	Season to Date Departure
Heating:	570	-97	M	M
Cooling:	0	0	M	M

Greatest 24-hr Precipitation: 0.42 Date: 30
Greatest 24-hr Snowfall: M Date: M
Greatest Snow Depth: M Date: M

Sea Level Pressure	Date	Time (LST)
Maximum 30.44	05	0827
Minimum 29.55	08	0952

Number of Days with ---------->
Max Temp >=90: 0
Max Temp <=32: 0
Thunderstorms : 0
Min Temp <=32: 14
Min Temp <=0 : 0
Heavy Fog : 0
Precipitation >=.01 inch: 4s
Precipitation >=.10 inch:
Snowfall >=1.0 inch : 0

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.

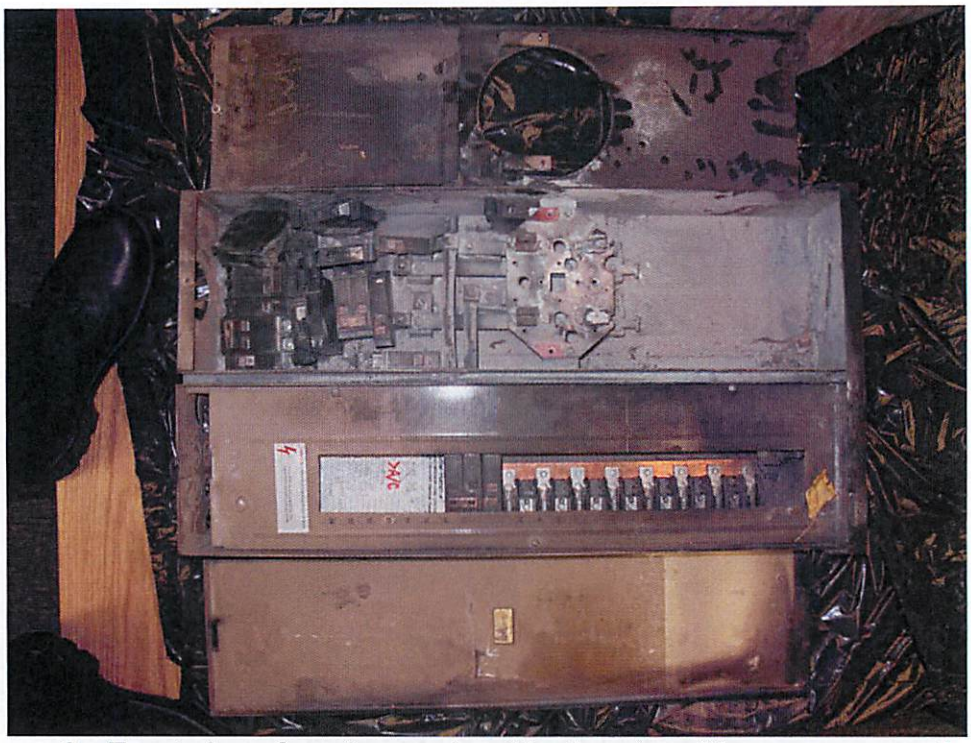
Data Version: VER3

Insured: NV Energy Claim#: SPPC 2012 02486 EFX File: 2706-1119 12/9/12 Page 12

EXAMINATION PHOTOGRAPHS

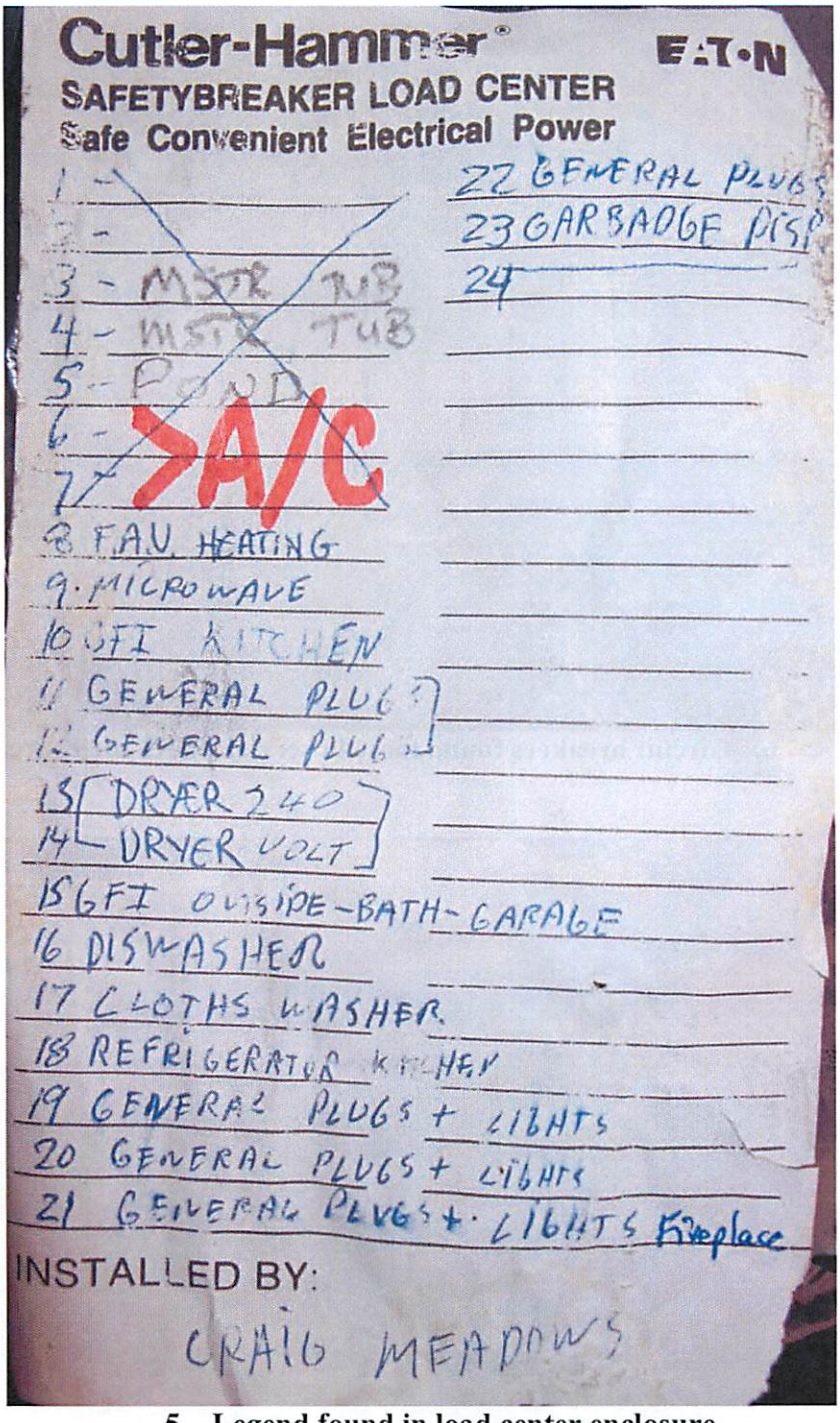
1. Evidence as presented for examination.

2. Front view of subject electrical service load center and meter loop.



3. Front view of service panel and load center with covers removed.

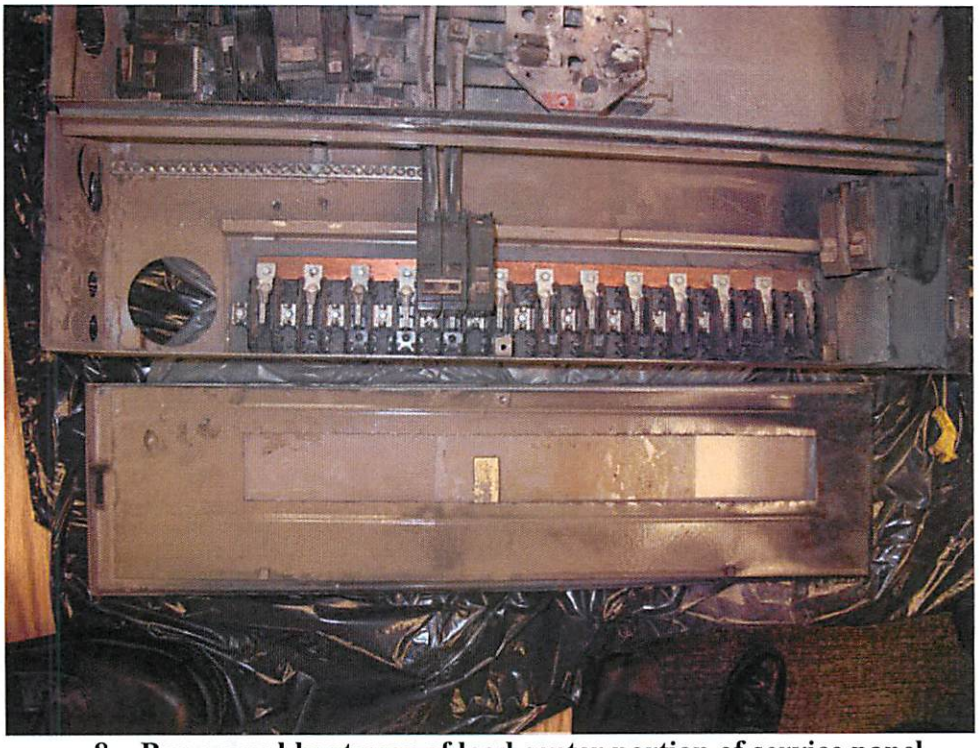
4. Circuit breakers found loose in utility section below meter jaws.



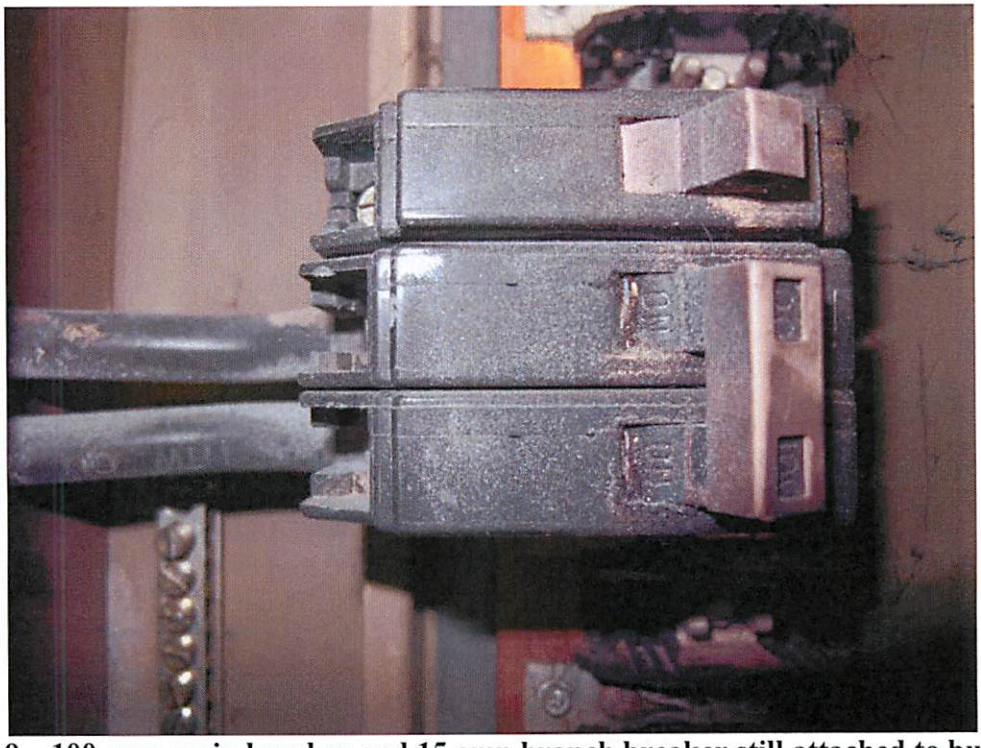
5. Legend found in load center enclosure.

6. Circuit breakers found loose in service panel enclosure.

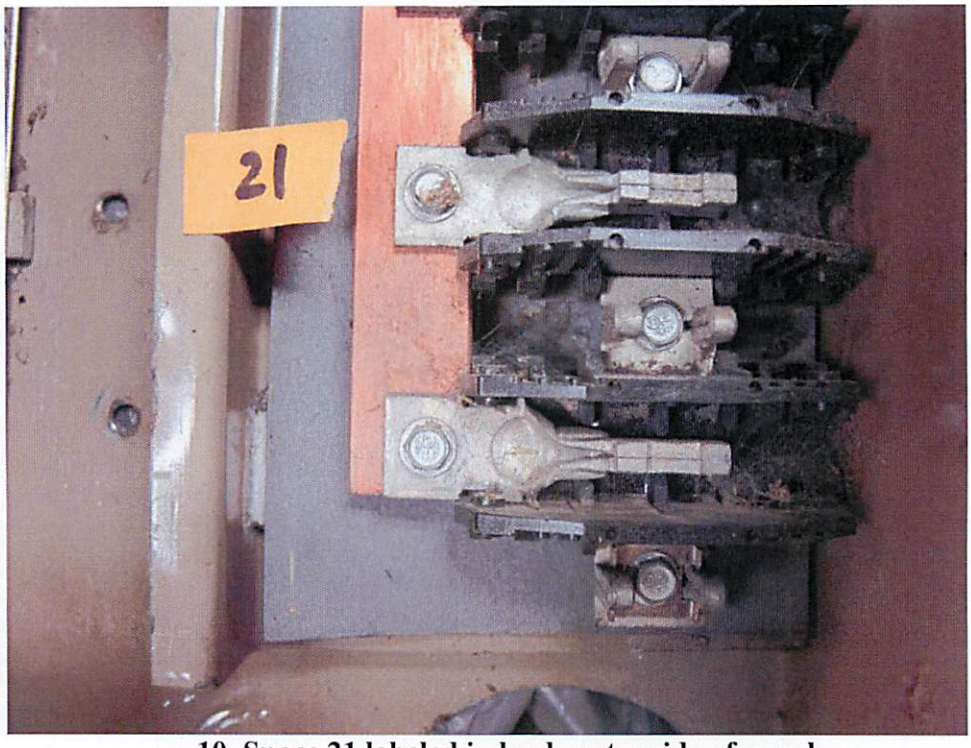
7. Rear view of circuit breakers found loose in panel.



8. Bus assembly at rear of load center portion of service panel.

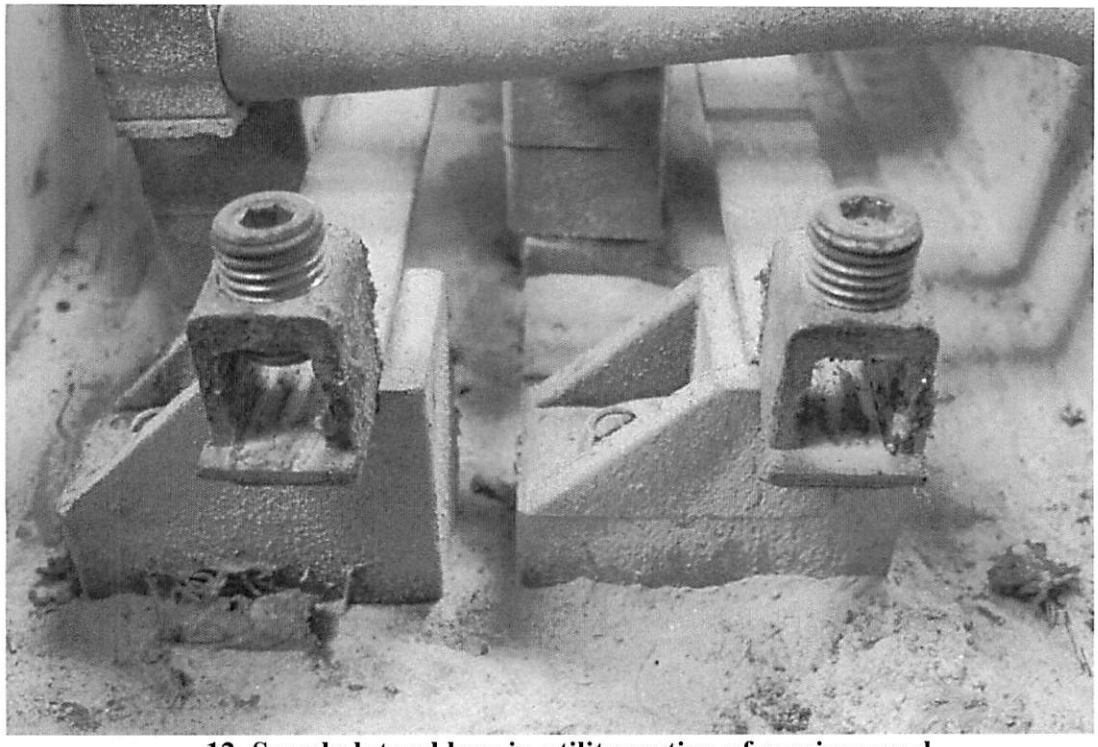


9. 100 amp main breaker and 15 amp branch breaker still attached to buses.

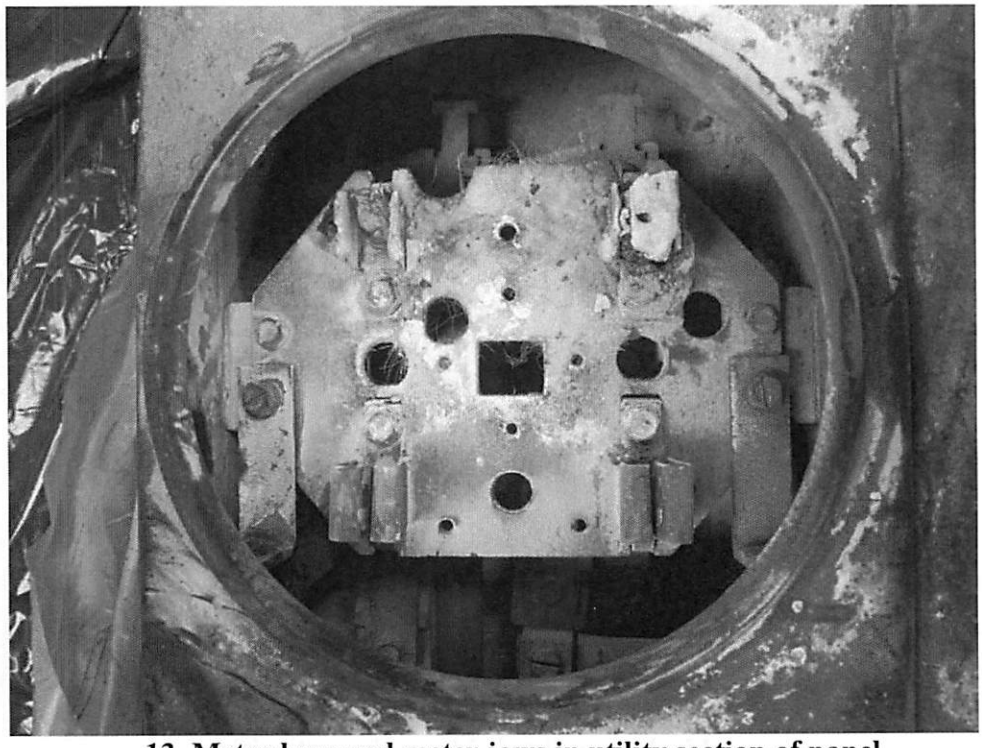


10. Space 21 labeled in load center side of panel.

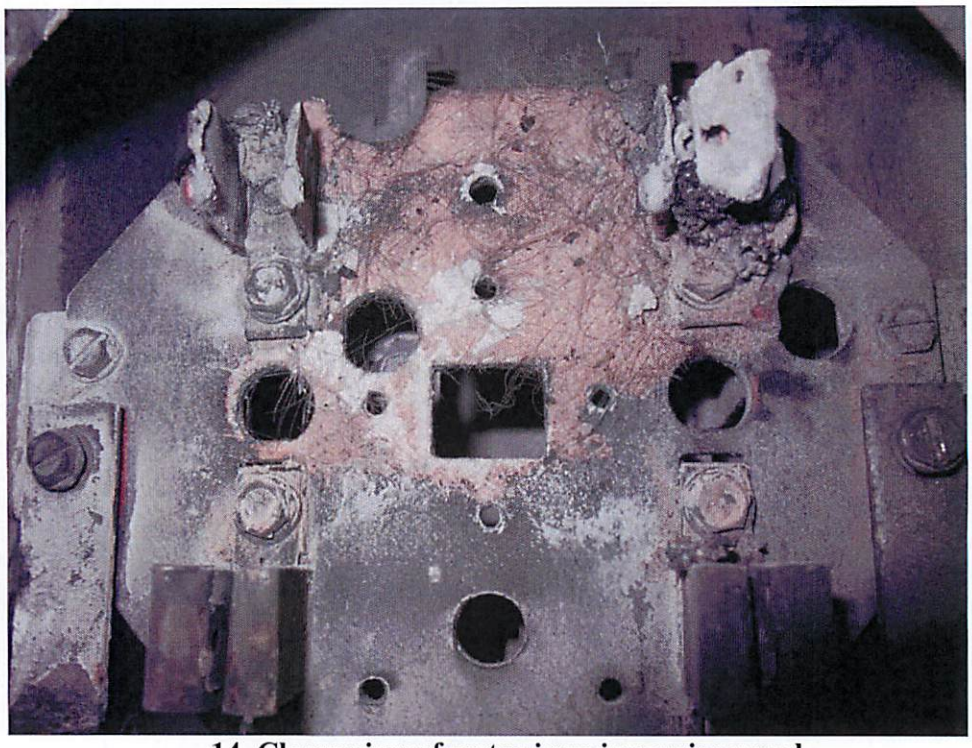
11. Bottom view of service panel.



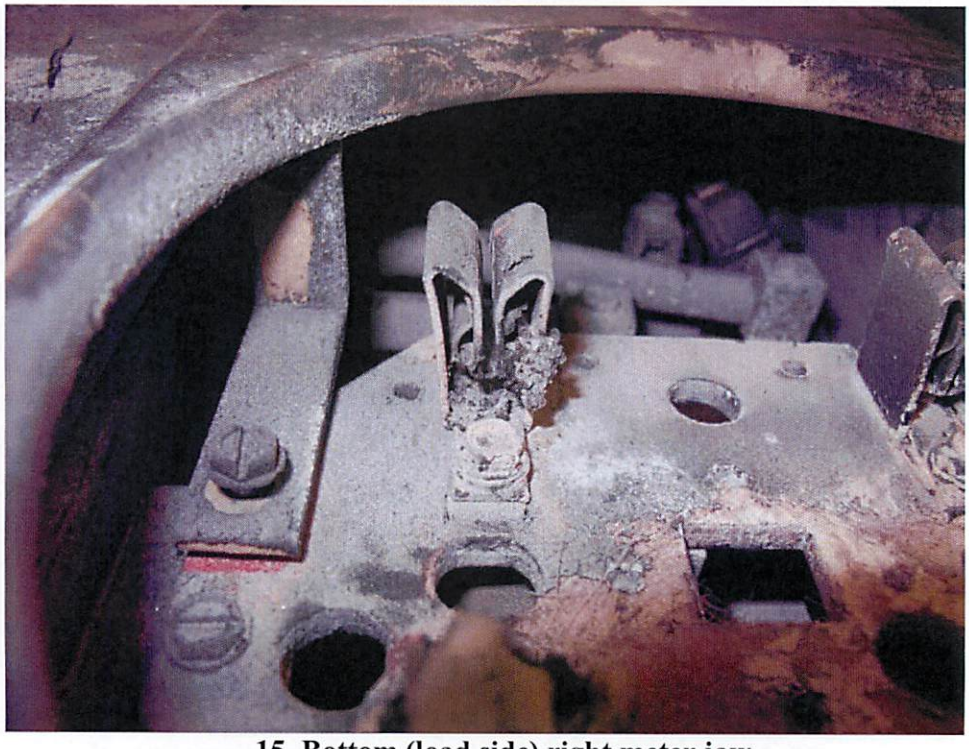
12. Supply lateral lugs in utility section of service panel.



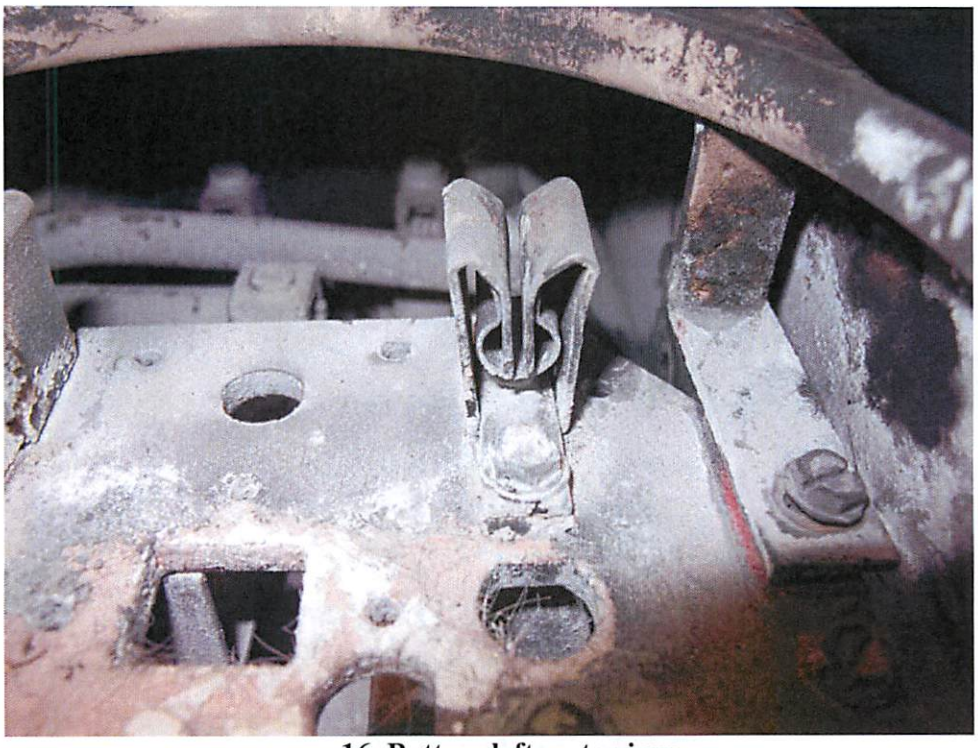
13. Meter loop and meter jaws in utility section of panel.



14. Closer view of meter jaws in service panel.



15. Bottom (load side) right meter jaw.

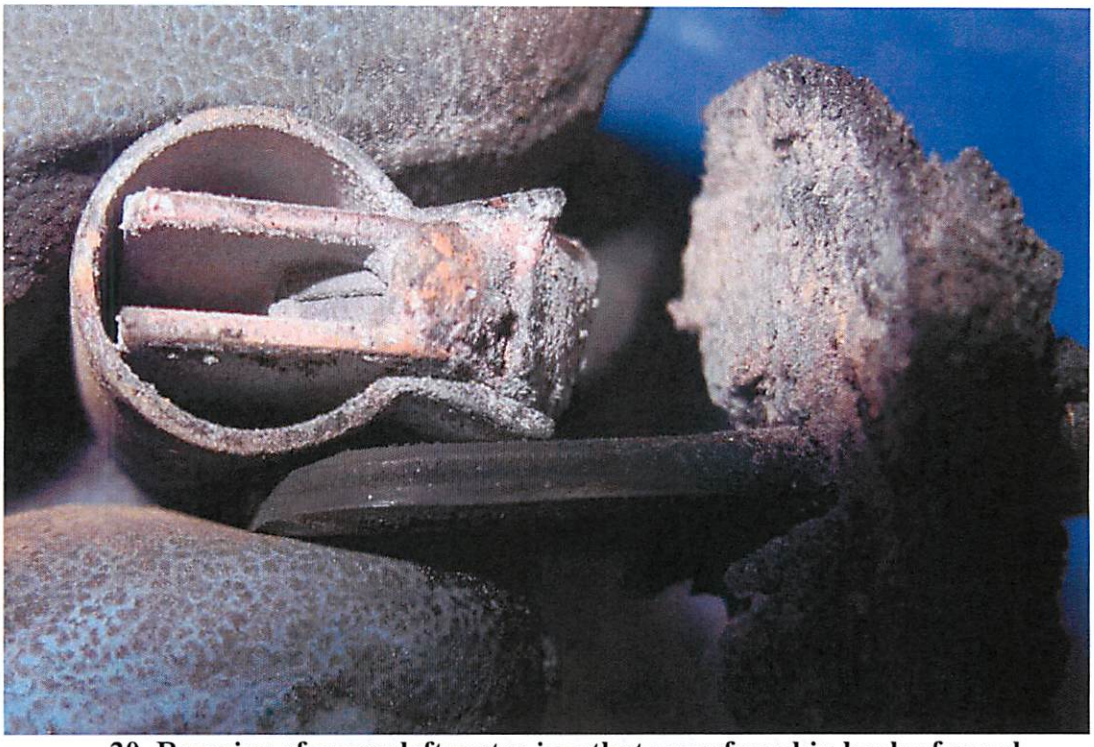


16. Bottom left meter jaw.

17. Remains of upper (line side) left meter jaw.

18. Side view of upper left meter jaw.

19. Remains of upper left meter jaw as found loose in back of panel.



20. Remains of upper left meter jaw that were found in back of panel.

21. Upper right meter jaw.

22. Opposite side view of upper right meter jaw.

23. Lower (load side) meter stab prongs found loose in panel.

24. Lower meter stab prong shown next to lower meter loop jaw.

25. Rear view of subject meter plastic base plate.

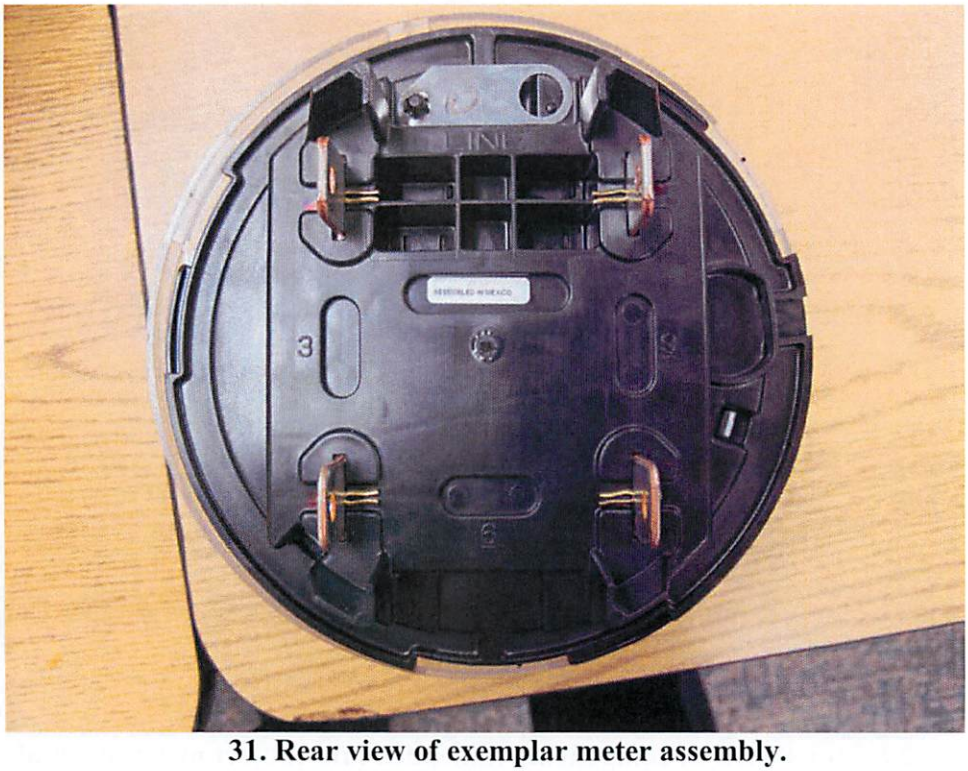
26. Front view of subject meter plastic base plate.

27. Remains of subject meter assembly.

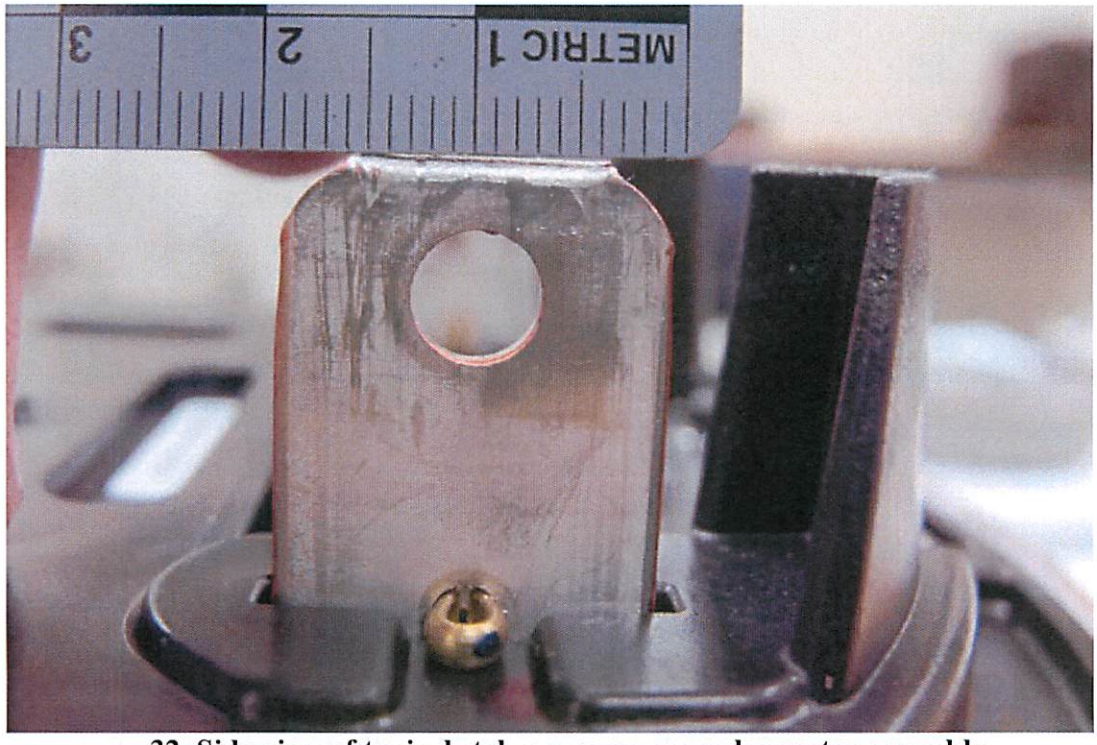
28. Opposite side view of remains of subject meter assembly.

29. Closer view of components embedded into subject meter assembly.

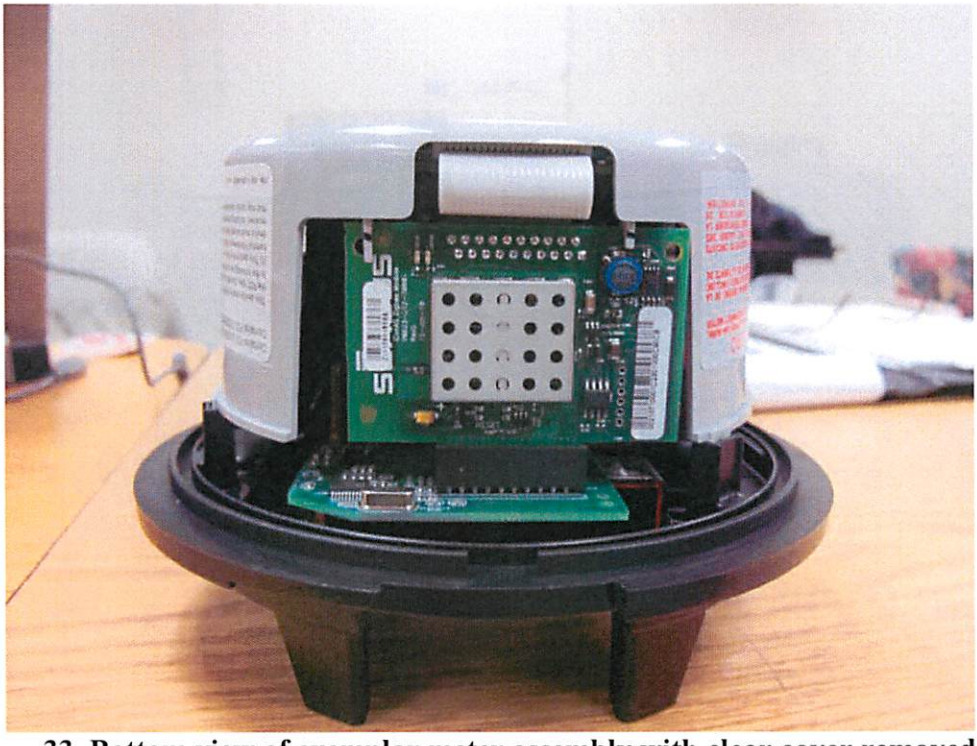
30. Front view of exemplar meter assembly.



31. Rear view of exemplar meter assembly.

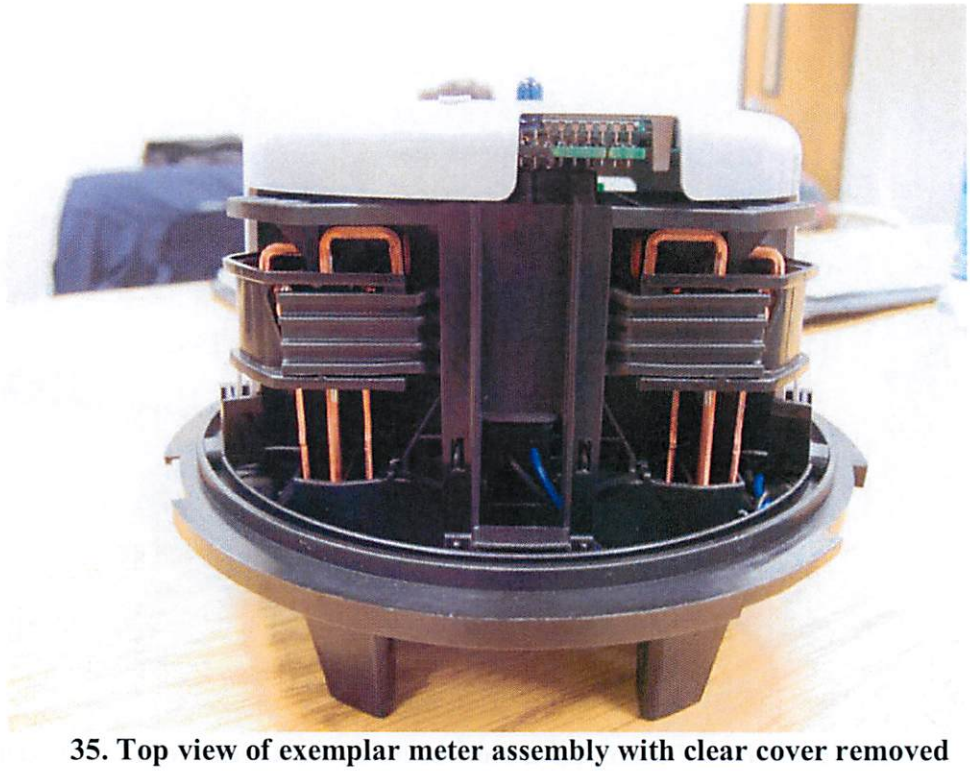


32. Side view of typical stab prong on exemplar meter assembly.



33. Bottom view of exemplar meter assembly with clear cover removed.

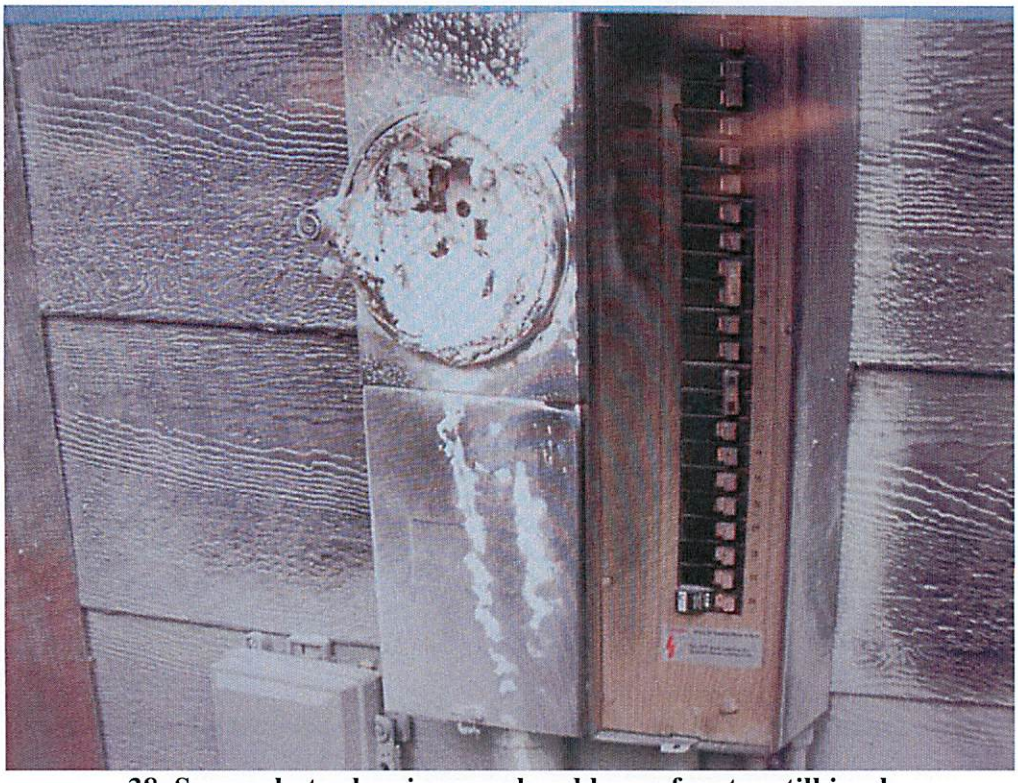
34. Side view of exemplar meter assembly with clear cover removed.



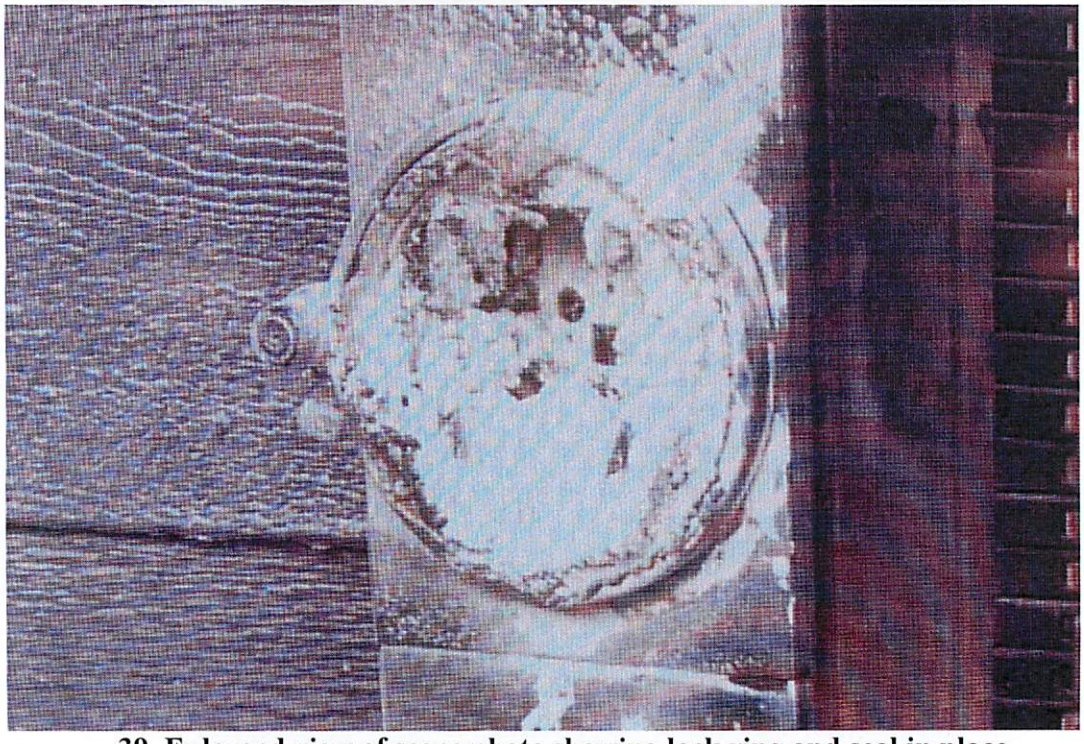
35. Top view of exemplar meter assembly with clear cover removed

36. Lock ring associated with subject meter installation.

37. Closer view of lock receptacle and seal tang on meter lock ring.



38. Scene photo showing panel and base of meter still in place.



39. Enlarged view of scene photo showing lock ring and seal in place.

ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

ATTACHMENT E

6 East H Street, Sparks
November 30, 2014 Incident

Sparks Fire Department Report

Peter Mulvihill

From: King, Bob <bking@cityofsparks.us>
Sent: Wednesday, October 29, 2014 9:36 AM
To: Peter Mulvihill
Cc: Garrison, Tom; Thornley, Doug
Subject: Sparks Fire Department Fire Investigation Files
Attachments: 6 E. H Street.pdf; 200 E. Lincoln Way.pdf; 1521 G ST.pdf; 4742 El Cap Ct..pdf; 7255 Windswept Loop.pdf

Chief Mulvihill,

Here are the redacted fire investigation files. The only items redacted were names, phone numbers, and SSAN's. Please discard the previous files and replace with these.

Thanks again for your patience with us during this process.

Don't hesitate to call me if you have any questions.

Sincerely,

Bob King, EFO
DC/Fire Marshal
1605 Victorian Ave.
Sparks, NV 89431
O- 353-2261
C – 527-3712
F – 353-2396

From: Feldman, Rick
Sent: Wednesday, October 29, 2014 9:27 AM
To: King, Bob
Subject: smart meter

SPARKS FIRE DEPARTMENT
FIRE INVESTIGATION REPORT

6 E. H St.
Sparks, Nevada 89431
Incident #1208440
11-30-2012

Notification & Fire Synopsis:

At approximately 4:00 pm, I was notified by Sparks police Dispatch to respond to a fire located at 6 E. H St. I arrived on scene at approximately 4:07 pm and met with Sparks Fire Department Captain James Kindness. A small fire occurred on the the rear exterior of this structure at the electrical meter.

The weather conditions at the time was an approximate temperature of 40* degrees Fahrenheit with light rain. At the time of the fire the wind speed was approximately 14 m.p.h. from the south. There were no reported lightning strikes in the area at the time of the fire. Weather conditions did not appear to have contributed to this fire.

Structure / Vehicle Information:

The structure was constructed in 1957. The construction type is ordinary combustible construction. The approximate square footage is 1,092. The roofing materials are composite shingles. The exterior walls are covered with vinyl siding. The structure is supplied with 100 amp electrical service.

Interviews:

Refer to file for witness statement from tenant and narrative from Captain Kindness.

Scene Investigation:

Upon my arrival I photographed the exterior of the structure. Captain Kindness showed me the burned out electrical meter on the north side of the structure. The fire was extinguished upon the arrival of Sparks Fire Department personnel. The electrical meter was melted to the front of the electrical panel box. None of the system electrical circuit breakers were in the tripped position. The vinyl siding above and next to the electrical panel sustained smoke and heat damage. The fire extended beyond the area of the electrical panel on the exterior of the structure. The fire did not extend into the interior of the structure. The tenant stated to me that she was standing on her patio of the north side of the structure when the fire occurred. She stated that she witnessed flames shooting out of the electrical meter. The represenatives on scene from from Nevada Energy stated that this structure was equipped with a new smart meter and that their have been problems with some of the meters catching on fire in Northern Nevada. Prior to leaving the scene, a technician from Briggs Electrical Service named Jason arrived with a new electrical panel to replace the damaged exisiting panel. He stated that he was contacted by Nevada Energy to replace the the electrical panel due to the electrical meter fire. I informed him that a permit for the panel replacement is required from the City of

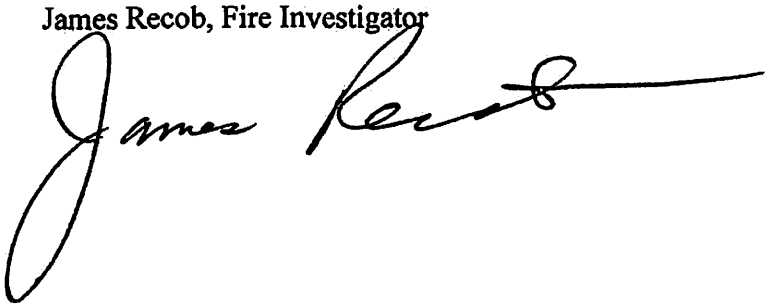
Sparks Building Department. Jason stated that he would have the electrical panel replaced and power would be restored that evening.

Opinion & Conclusion:

The origin of this fire is the electrical meter and the cause appears to be malfunction of electrical equipment. It is the opinion of this Investigator, that this is an accidental fire caused by malfunctioning electrical equipment.

Reporting Investigator:

James Recob, Fire Investigator



Incident Report

Sparks Fire D[illegible]tment

2012-1208440 -000

Basic	
Alarm Date and Time	15:40:46 Friday, November 30, 2012
Arrival Time	15:44:30
Controlled Date and Time	
Last Unit Cleared Date and Time	16:35:10 Friday, November 30, 2012
Response Time	0:03:44
Priority Response	Yes
Completed	Yes
Reviewed	Yes
Fire Department Station	1
Shift	B
Incident Type	111 - Building fire
Aid Given or Received	N - None
Action Taken 1	87 - Investigate fire out on arrival
Casualties	No
Apparatus - Suppression	7
Personnel - Suppression Personnel	17
Property Loss	$1,500.00
Contents Loss	$0.00
Property Value	$1,500.00
Contents Value	$0.00
Detector Alerted occupants	2
Property Use	419 - 1 or 2 family dwelling
Location Type	Address
Address	6 E H ST
City, State Zip	SPARKS, NV 89431
District	18
Directions	6 E. H ST

Person Involved - [redacted]	
Involvement Code	EMP
Last Name	[redacted]
First Name	[redacted]
Business Name	NV Energy
Street Address	
Phone	7758347532

Person Involved - [redacted]	
Occupies Property	Yes
Involvement Code	REP
Name Prefix	MS
Last Name	[redacted]
First Name	[redacted]
Street Address	6 E H ST
City, State Zip	SPARKS, NV 89431
Phone	7025210035

Person Involved - Price, Chris	
Involvement Code	EMP

Person Involved - [redacted]	
Last Name	[redacted]
First Name	[redacted]
Business Name	Halmark Investments-Mgmt.
Street Address	
City, State Zip	NV
Phone	7757868488

Fire	
Structure Type	1 - Enclosed building
Number of Residential	1
Number of Buildings Involved	1
Area of Origin	52 - Conduit, pipe, utility, or ventilation shaft
Heat Source	UU - Undetermined
Item First Ignited	UU - Undetermined
Cause of Ignition	3 - Failure of equipment or heat source
Contribution To Ignition 1	UU - Undetermined
Human Factors	None
Equipment Type	213 - Electric meter, meter box
Equipment Power	11 - Electrical line voltage (>= 50 volts)
Equipment Portability	2 - Stationary

Structure	
Status	2 - In normal use
Floor of Origin	1
Stories Above Grade	1
Building Length	50
Building Width	20
Total Square Feet	1000
Fire Spread	2 - Confined to room of origin
Stories with Minor Damage	1
Item Contributing To Spread	12 - Exterior wall covering or finish
Type of Material Contributing To	63 - Sawn wood, including all finished lumber
Detector Presence	3
AES Presence	3

Apparatus - T11	
Apparatus ID	T11
Apparatus Dispatch Date and Time	15:40:56 Friday, November 30, 2012
En route to scene date and time	15:43:04 Friday, November 30, 2012
Apparatus Clear Date and Time	15:52:36 Friday, November 30, 2012
Apparatus priority response	Yes
Apparatus cancelled after dispatch	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	93 - Cancelled en route
Apparatus Type	12 - Truck or aerial
Personnel 1	10165 - Conely, Jake A Position: CAPT

Apparatus - T11	
	Personnel Action Taken 1: 93 - Cancelled en route
Personnel 2	10725 - Gayton, Tyler M
	Position: FF
	Personnel Action Taken 1: 93 - Cancelled en route
Personnel 3	10724 - Christensen, Ryan
	Position: FF
	Personnel Action Taken 1: 93 - Cancelled en route

Apparatus - E31	
Apparatus ID	E31
Apparatus Dispatch Date and Time	15:40:57 Friday, November 30, 2012
En route to scene date and time	15:43:19 Friday, November 30, 2012
Apparatus Clear Date and Time	15:49:44 Friday, November 30, 2012
Apparatus priority response	Yes
Apparatus cancelled after dispatch	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	93 - Cancelled en route
Apparatus Type	11 - Engine
Personnel 1	10291 - Krompetz, Thomas J
	Position: FAO
	Personnel Action Taken 1: 93 - Cancelled en route
	Personnel Action Taken 2: 58 - Operate apparatus or vehicle
Personnel 2	10236 - Kowatch, Thomas J
	Position: CAPT
	Personnel Action Taken 1: 93 - Cancelled en route
Personnel 3	14082 - Johnson, Forrest W
	Position: FF
	Personnel Action Taken 1: 93 - Cancelled en route

Apparatus - E11	
Apparatus ID	E11
Response Time	0:02:42
Apparatus Dispatch Date and Time	15:40:56 Friday, November 30, 2012
En route to scene date and time	15:41:48 Friday, November 30, 2012
Apparatus Arrival Date and Time	15:44:30 Friday, November 30, 2012
Apparatus Clear Date and Time	16:35:06 Friday, November 30, 2012
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	87 - Investigate fire out on arrival
Apparatus Action Taken 2	82 - Notify other agencies.
Apparatus Action Taken 3	81 - Incident command
Apparatus Type	11 - Engine
Personnel 1	10284 - Weller, Edward L
	Position: FAO
	Personnel Action Taken 1: 58 - Operate apparatus or vehicle
	Personnel Action Taken 2: 87 - Investigate fire out on arrival

Apparatus - E11	
Personnel 2	10221 - Kindness, James A
	Position: CAPT
	Personnel Action Taken 1: 87 - Investigate fire out on arrival
	Personnel Action Taken 2: 82 - Notify other agencies.
	Personnel Action Taken 3: 81 - Incident command
Personnel 3	14145 - Jacobsen, Laura
	Position: FF
	Personnel Action Taken 1: 87 - Investigate fire out on arrival

Apparatus - BC1	
Apparatus ID	BC1
Response Time	0:03:03
Apparatus Dispatch Date and Time	15:40:56 Friday, November 30, 2012
En route to scene date and time	15:42:21 Friday, November 30, 2012
Apparatus Arrival Date and Time	15:45:24 Friday, November 30, 2012
Apparatus Clear Date and Time	15:52:40 Friday, November 30, 2012
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Action Taken 1	81 - Incident command
Apparatus Type	92 - Chief officer car
Personnel 1	10267 - Maples, Chris
	Position: BC
	Personnel Action Taken 1: 81 - Incident command

Apparatus - E21	
Apparatus ID	E21
Response Time	0:03:11
Apparatus Dispatch Date and Time	15:40:57 Friday, November 30, 2012
En route to scene date and time	15:43:02 Friday, November 30, 2012
Apparatus Arrival Date and Time	15:46:13 Friday, November 30, 2012
Apparatus Clear Date and Time	15:49:24 Friday, November 30, 2012
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	92 - Standby
Apparatus Type	11 - Engine
Personnel 1	10458 - Wakefield, John A
	Position: FF
	Personnel Action Taken 1: 92 - Standby
Personnel 2	14071 - Scott, Matthew J
	Position: FF
	Personnel Action Taken 1: 58 - Operate apparatus or vehicle
	Personnel Action Taken 2: 92 - Standby
Personnel 3	10688 - Jakubos, Kevin N
	Position: FAO
	Personnel Action Taken 1: 92 - Standby

Apparatus - E12	
Apparatus ID	E12
Response Time	0:03:45
Apparatus Dispatch Date and Time	15:40:57 Friday, November 30, 2012
En route to scene date and time	15:42:56 Friday, November 30, 2012
Apparatus Arrival Date and Time	15:46:41 Friday, November 30, 2012
Apparatus Clear Date and Time	15:49:40 Friday, November 30, 2012
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	92 - Standby
Apparatus Type	11 - Engine
Personnel 1	10222 - Langford, Justin
	Position: CAPT
	Personnel Action Taken 1: 92 - Standby
Personnel 2	10726 - Hanneman, Shawn T
	Position: FF
	Personnel Action Taken 1: 92 - Standby
Personnel 3	11141 - Berry, Darin L
	Position: FAO
	Personnel Action Taken 1: 58 - Operate apparatus or vehicle
	Personnel Action Taken 2: 92 - Standby

Apparatus - P3	
Apparatus ID	P3
Response Time	0:09:17
Apparatus Dispatch Date and Time	15:56:22 Friday, November 30, 2012
En route to scene date and time	15:56:26 Friday, November 30, 2012
Apparatus Arrival Date and Time	16:05:43 Friday, November 30, 2012
Apparatus Clear Date and Time	16:35:10 Friday, November 30, 2012
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Action Taken 1	86 - Investigate
Apparatus Type	00 - Other apparatus/resource
Personnel 1	10483 - Recob, James M
	Position: INSP
	Personnel Action Taken 1: 86 - Investigate

Authority	
Reported By	10221 - Kindness, James A
	21:38:31 Friday, November 30, 2012
Officer In Charge	10221 - Kindness, James A
	21:38:33 Friday, November 30, 2012
Reviewer	10267 - Maples, Chris
	21:51:25 Friday, November 30, 2012

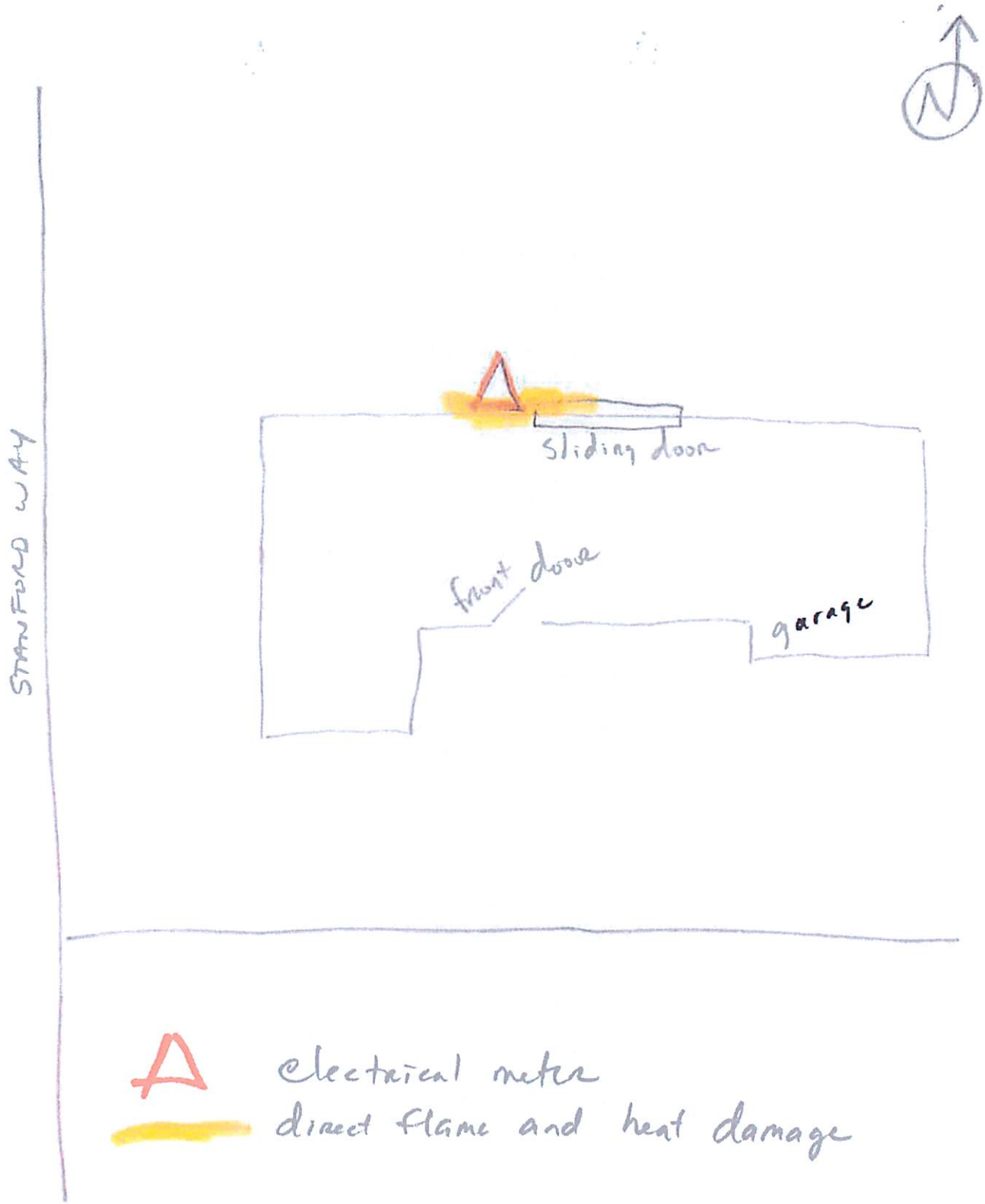
Narratives	
Narrative Name	CAD Narrative

Narratives	
Narrative Type	CAD Narrative
Author	-,
Narrative Text	Incident Type:FIRE STRUCTURE How Call Taken: P
Narrative Name	T11 - Required
Narrative Type	Incident
Narrative Date	21:36:43 Friday, November 30, 2012
Author	10221 - Kindness, James A
Author Rank	CAPT
Author Assignment	1
Narrative Text	See Kindness
Narrative Name	E31 - Required
Narrative Type	Incident
Narrative Date	21:36:51 Friday, November 30, 2012
Author	10221 - Kindness, James A
Author Rank	CAPT
Author Assignment	1
Narrative Text	See Kindness
Narrative Name	Kindness
Narrative Type	Incident
Narrative Date	21:26:29 Friday, November 30, 2012
Author	10221 - Kindness, James A
Author Rank	CAPT
Author Assignment	1
Narrative Text	At 1540 hours on Friday November 30, 2012 we were dispatched to a building fire. Seven units were assigned to this incident. Seventeen personnel responded. We arrived on scene at 1544 hours and cleared at 1635 hours. The incident occurred at 6 E H St, SPARKS in District 18. The local station is 1. The general description of this property is 1 or 2 family dwelling. No mutual/automatic aid was given or received. The involved structure is described as an enclosed building. The building was occupied and operating. "Conduit, pipe, utility, ventilation shaft" best describes the primary use of the room or space where the fire originated. This building has one story above ground. The fire occurred on the first floor. The fire was confined to the room of origin. Failure of equipment or heat source caused the ignition. The material contributing most to flame spread was "sawn wood". The use, or purpose of the contributing material was "exterior wall covering or finish". The estimated property loss on this incident was $1,500. The estimated property value was $1,500. Alarm number 1208440 has been assigned to this incident. 1st alarm assignment dispatched to an electric meter that just caught fire and exploded. E-11 arrived on scene with nothing showing and established command. E-11 investigated and found the electric meter on the "C" side of the house had exploded and also caught a little bit of the siding on fire. BC1 arrived and assumed command. E-11 requested NV

Narratives	
	Energy and a fire inspector. E-11 checked the areas adjacent to the electric meter with a TIC and a thermal spy looking for excessive heat and found none. E-11 also checked the attic area for signs of extension and found none. All other apparatus were cancelled. Prevention officers Recob and Herrick arrived on scene and investigated. NV Energy arrived, cut the service to the residence from on top of the roof and called for an electrician to replace the box. NV Energy stated the electrician would arrive shortly along with their claims division. NV Energy stated this was the third meter they have had similar problems with this month alone. NV Energy rep was Dennis Delano who provided his bosses number (Marco Guerreo - 834-7532) and his normal supervisors number (Mike Chen - 834-7055) who was currently on vacation. E-11 turned the scene over to NV Energy and Prevention. E-11 complete.
Narrative Name	BC1 - Required
Narrative Type	Incident
Narrative Date	21:36:58 Friday, November 30, 2012
Author	10221 - Kindness, James A
Author Rank	CAPT
Author Assignment	1
Narrative Text	See Kindness
Narrative Name	E21 - Required
Narrative Type	Incident
Narrative Date	21:37:06 Friday, November 30, 2012
Author	10221 - Kindness, James A
Author Rank	CAPT
Author Assignment	1
Narrative Text	See Kindness
Narrative Name	E12 - Required
Narrative Type	Incident
Narrative Date	21:37:14 Friday, November 30, 2012
Author	10221 - Kindness, James A
Author Rank	CAPT
Author Assignment	1
Narrative Text	See Kindness
Narrative Name	P3 - Required
Narrative Type	Incident
Narrative Date	21:37:23 Friday, November 30, 2012
Author	10221 - Kindness, James A
Author Rank	CAPT
Author Assignment	1
Narrative Text	See Kindness

Special Studies	
Special Study Name	Special Study 1
Special Study ID	1

End of Report



incident # 1208440 11-30-12 drawn by J Recob
note: NOT TO SCALE

WITNESS STATEMENT
FIELD NOTES 906-6

AGENCY	FILE NUMBER

IDENTIFICATION

NAME		ADDRESS	PHONE NO.
[redacted]	[redacted]	6 E. H. St Sparks	[redacted]

RACE	SEX	AGE	DATE OF BIRTH	SOC. SECURITY NO.	DRIVER'S LIC. NO.
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	

EMPLOYER	ADDRESS	PHONE NO.

RELATIONSHIP TO INCIDENT	CAN BE CONTACTED AT
STATEMENT TAKEN BY	**LOCATION, DATE & TIME OF STATEMENT**

STATEMENT

Ct approximately 3:30pm I was sitting on the back patio - I heard a very loud "pop" and saw flames shooting out of the electrical meter. I immediately called 911 and the Sparks Fire Department arrived in a matter of minutes

CITY OF SPARKS

COMMUNITY SERVICES DEPARTMENT

Fire Division **Building Division** **Planning Division**

(775) 353-2266 **(775) 353-2306** **(775) 353-2340**

email permitservices@cityofsparks.us

Job Site: 6 E H ST SPKS

Parcel: 033-133-01

Owner: HALLENBECK MARK C & JUDITH A

Applicant: BRIGGS ELECTRIC INC
Phone: (775) 887-9901

Contractor: BRIGGS ELECTRIC INC
Phone: (775) 887-9901

Permit Number: A1202371

Date Issued: 12/11/2012

Inspector: FO

Permit Type: ELEC

Sub Type:

Valuation: $0.00
Mech: $0.00

Description: CHANGE OUT 100 AMP SERVICE PANEL

Fee Details:

Item#	Description	Total Fee	Paid	Prev. Pmts	Curr. Pmts
60	Electrical Fee	49.25	49.25	49.25	.00

Total Fees: $49.25
Payments: $49.25
Balance Due: $0.00

Note: This permit becomes null and void if work or construction authorized is not commenced within 180 days of issuance or if the construction or work is suspended or abandoned for a period of 180 days.

I hereby certify that I have read and examined this permit and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not. The granting of this permit does not presume to give authority to violate or cancel the provisions of any other federal, state, or local law regulating construction or the performance of construction. **I further understand it is my responsibility to request and schedule all necessary inspections, including final inspection.** Where a Certificate of Occupancy is required, such building shall not be occupied until final inspection has been conducted and approved and the Certificate of Occupancy issued. The issuance of a Certificate of Occupancy is not a warranty or guarantee as to the quality of construction of the structure and it does not insure or guarantee that there are not violations of local, state, or federal laws. I hereby agree to save, indemnify and hold harmless the City of Sparks, it's officers, employees and agents against all liabilities which may accrue against the City arising from the undersigned's failure to perform in accordance with approved permit and plans.

Owner(s) Authorized Agent_____ Signature_____ Date _____
Print Name

PHOTOGRAPHS
FIELD NOTES 906-8

ROLL NO.	AGENCY	FILE NUMBER
n/a	SFD	1208440

*ONLY ONE ROLL OF FILM PER FORM.

NEG.NO.	DESCRIPTION	NEG. NO.	DESCRIPTION
1	Front door south side	21	
2	north side exterior at the electrical meter	22	
3	service drop on the roof after being cut by NV Energy, north side	23	
4	electrical meter	24	
5	electrical meter	25	
6	electrical meter	26	
7	electrical meter	27	
8	interior north side	28	
9	interior north side	29	
10	electrical meter face plate below the electrical panel , north side	30	
11	electrical meter	31	
12	electrical meter	32	
13	north side exterior next to the electrical meter	33	
14		34	
15		35	
16		36	
17		37	
18		38	
19		39	
20		40	

REMARKS

All photographs taken at 6 E. H St. on 11-30-2012

11.30.2012 19:21

11 30 2012 16:22

11.30.2012 16:24

11.30.2012 16:24

11'30. 2012. 19. 24

11.30.2012 16:26

11.30.2012 16:27

11.30.2012 16:27

6
11.30.2012 16:32

11.30.2012 16:21

11.30.2012 16:21

11.30.2012 16:21

11.30.2012 16:21

ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

ATTACHMENT F

1521 G Street, Sparks
December 12, 2012 Incident

Sparks Fire Department Report

Peter Mulvihill

From: King, Bob <bking@cityofsparks.us>
Sent: Wednesday, October 29, 2014 9:36 AM
To: Peter Mulvihill
Cc: Garrison, Tom; Thornley, Doug
Subject: Sparks Fire Department Fire Investigation Files
Attachments: 6 E. H Street.pdf; 200 E. Lincoln Way.pdf; 1521 G ST.pdf; 4742 El Cap Ct..pdf; 7255 Windswept Loop.pdf

Chief Mulvihill,

Here are the redacted fire investigation files. The only items redacted were names, phone numbers, and SSAN's. Please discard the previous files and replace with these.

Thanks again for your patience with us during this process.

Don't hesitate to call me if you have any questions.

Sincerely,

Bob King, EFO
DC/Fire Marshal
1605 Victorian Ave.
Sparks, NV 89431
O- 353-2261
C – 527-3712
F – 353-2396

From: Feldman, Rick
Sent: Wednesday, October 29, 2014 9:27 AM
To: King, Bob
Subject: smart meter

Incident Report

Sparks Fire Department

2012-1208836 -000

Basic		
Alarm Date and Time	16:52:47	Sunday, December 16, 2012
Arrival Time	16:56:22	
Controlled Date and Time		
Last Unit Cleared Date and Time	17:52:59	Sunday, December 16, 2012
Response Time	0:03:35	
Priority Response	Yes	
Completed	Yes	
Reviewed	Yes	
Fire Department Station	1	
Shift	A	
Incident Type	445 - Arcing, shorted electrical equipment	
Aid Given or Received	N - None	
Action Taken 1	92 - Standby	
Casualties	No	
Apparatus - Suppression	2	
Personnel - Suppression Personnel	6	
Property Use	419 - 1 or 2 family dwelling	
Location Type	Address	
Address	1521 G ST	
City, State Zip	SPARKS, NV 89431	
District	7	
Directions	1521 G ST	

Person Involved - Zmack, Kristi	
Occupies Property	Yes
Involvement Code	REP
Last Name	[redacted]
First Name	[redacted]
Street Address	1521 G ST
City, State Zip	SPARKS, NV 89431
Phone	[redacted]

Apparatus - E12		
Apparatus ID	E12	
Apparatus Dispatch Date and Time	16:54:11	Sunday, December 16, 2012
En route to scene date and time	16:54:31	Sunday, December 16, 2012
Apparatus Clear Date and Time	16:54:37	Sunday, December 16, 2012
Apparatus priority response	Yes	
Apparatus cancelled after dispatch	Yes	
Number of People	3	
Apparatus Use	1	
Apparatus Action Taken 1	93 - Cancelled en route	
Apparatus Type	11 - Engine	
Personnel 1	10397 - Carson, Tyler	
	Position: CAPT	
	Personnel Action Taken 1: 93 - Cancelled en route	
Personnel 2	10284 - Weller, Edward L	
	Position: FAO	

Apparatus - E12	
	Personnel Action Taken 1: 93 - Cancelled en route
Personnel 3	10724 - [redacted]
	Position: FF
	Personnel Action Taken 1: 93 - Cancelled en route

Apparatus - E11	
Apparatus ID	E11
Apparatus Dispatch Date and Time	16:54:30 Sunday, December 16, 2012
Apparatus Arrival Date and Time	16:56:22 Sunday, December 16, 2012
Apparatus Clear Date and Time	17:52:59 Sunday, December 16, 2012
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	92 - Standby
Apparatus Type	11 - Engine
Personnel 1	10379 - Glock, Matthew G
	Position: FAO
	Personnel Action Taken 1: 58 - Operate apparatus or vehicle
	Personnel Action Taken 2: 92 - Standby
Personnel 2	10723 - Chenoweth, Kyle T
	Position: FF
	Personnel Action Taken 1: 92 - Standby
Personnel 3	10484 - Felder, Phillip M
	Position: CAPT
	Personnel Action Taken 1: 86 - Investigate
	Personnel Action Taken 2: 92 - Standby

Authority	
Reported By	10484 - Felder, Phillip M
	21:48:59 Sunday, December 16, 2012
Officer In Charge	10484 - Felder, Phillip M
	21:49:05 Sunday, December 16, 2012
Reviewer	10267 - Maples, Chris
	06:26:09 Monday, December 17, 2012

Narratives	
Narrative Name	CAD Narrative
Narrative Type	CAD Narrative
Author	-,
Narrative Text	Incident Type:FIRE How Call Taken: W9

Narrative Name	E12 - Required
Narrative Type	Incident
Narrative Date	21:48:34 Sunday, December 16, 2012
Author	10484 - Felder, Phillip M
Author Rank	CAPT
Author Assignment	1
Narrative Text	See E-11

Narratives	
Narrative Name	E11 - Felder
Narrative Type	Incident
Narrative Date	21:37:05 Sunday, December 16, 2012
Author	10484 - Felder, Phillip M
Author Rank	CAPT
Author Assignment	1
Narrative Text	At 1652 hours on Sunday December 16, 2012 we were dispatched to arcing, shorted electrical equipment. Two units were assigned to this incident. Six personnel responded. We arrived on scene at 1656 hours and cleared at 1752 hours. The incident occurred at 1521 G St, SPARKS in District 7. The local station is 1. The general description of this property is 1 or 2 family dwelling. The primary task(s) performed at the scene by responding personnel was standby. No mutual/automatic aid was given or received. Alarm number 1208836 has been assigned to this incident. Felder's Narrative E-11 responded priority 1 to a report of a breaker box arcing and smoking at 1521 G St. E-11 met the RP in the alley and she showed us the breaker box and meter that was causing the issue. It was not actively arcing or smoking after we arrived. The RP had already contacted NV Energy was given a ETA of 45 minutes. We waited on scene until NV Energy arrived and evaluated the problem. E-11 left the scene with NV Energy and the RP. E-11 completed and returned available. Note: this incident involved a "smart meter".

End of Report

ATTACHMENT G

200 East Lincoln Way, Sparks
January 2, 2013 Incident

G.1 Sparks Fire Department Report

G.2 NV Energy Documents

ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

ATTACHMENT G.1

200 East Lincoln Way, Sparks
January 2, 2013 Incident

Sparks Fire Department Report

Peter Mulvihill

From: King, Bob <bking@cityofsparks.us>
Sent: Wednesday, October 29, 2014 9:36 AM
To: Peter Mulvihill
Cc: Garrison, Tom; Thornley, Doug
Subject: Sparks Fire Department Fire Investigation Files
Attachments: 6 E. H Street.pdf; 200 E. Lincoln Way.pdf; 1521 G ST.pdf; 4742 El Cap Ct..pdf; 7255 Windswept Loop.pdf

Chief Mulvihill,

Here are the redacted fire investigation files. The only items redacted were names, phone numbers, and SSAN's. Please discard the previous files and replace with these.

Thanks again for your patience with us during this process.

Don't hesitate to call me if you have any questions.

Sincerely,

Bob King, EFO
DC/Fire Marshal
1605 Victorian Ave.
Sparks, NV 89431
O- 353-2261
C – 527-3712
F – 353-2396

From: Feldman, Rick
Sent: Wednesday, October 29, 2014 9:27 AM
To: King, Bob
Subject: smart meter

Sparks Fire Department
Fire Investigation Report
200 East Lincoln Way
Case Number 1300036
January 2, 2013

Notification and Fire Synopsis:
On January 2, 2013, I was contacted by Sparks Dispatch and requested to investigate a structure fire at 200 East Lincoln Way. I arrived on scene at 0324 and cleared the scene at 0626 hours. Upon my arrival I met with Battalion Chief Niehaus and was informed that the fire was not suppressed and the structure was unsafe at this time. Dispatch informed me that the owner reported this fire. The temperature was 14 degrees Fahrenheit with calm winds. The weather was not a factor in this fire.

Structure:
This fire occurred in a single-family dwelling located at 200 East Lincoln Way. This structure is 1,406 square feet and was built in 1965 of ordinary construction with a composite shingle roof. The siding was of aluminum. The owner stated that he had removed all of the smoke detectors due to a remodel, and there is no other fire protection within the structure. The structure was occupied at the time of the fire. All exterior doors and windows were secured and shut. See assessor's report for structure layout. The owner stated that their insurance company is Allstate, and the [redacted]. Fire loss is unknown at this time.

Interviews:
The owner of the structure is [redacted]. [redacted] resides with her fiancé, [redacted], her son [redacted], and daughter [redacted]. [redacted] stated that he and [redacted] were sleeping when their son woke them and stated that it sounded like someone was trying to break in from the garage. [redacted] and his son went to the interior garage door and could hear a popping sound. [redacted] also stated that he could see a bright glow around the door. He opened the door, which was not hot to the touch, and saw fire. He then evacuated everyone and called 911. They waited for the Fire Department to arrive and then went to their neighbor's home. See witness statement. [redacted] confirmed [redacted]'s statement. See witness statement. I was not able to interview either Mogul or Jasmine Topete.

Scene Investigation:
I started my investigation by walking around the front of the home. As I entered in through the front door, I noticed a smoke demarcation line three feet from the ceiling. I entered the main hallway and looked east towards the bedroom and noticed heavy smoke damage but no signs of fire damage. I moved west into the living room, where I noticed smoke damage from the ceiling to the floor. They did have a fireplace, but there were no signs of it being used. The Christmas tree that was in front of the fireplace was melted in the direction of the garage. From the living room I entered the kitchen, where there were signs of fire and smoke damage. The greatest area of fire damage was along the wall between the kitchen

and the garage. I entered into the garage, where the fire had completely consumed the west side of the garage. The east side of the garage was heavily damaged by fire but was still supporting siding. The roof of the garage had been completely consumed and only a small portion of the roof was hanging from the west wall. Along the east wall was an older car that [redacted] was in the process of restoring. Looking west, there was a main door leading to the outside. The area from the frame back to the panel had been completely consumed by fire. The main electrical panel was located on the southwest corner of the west garage wall. Directly behind the main panel was a sub-panel. That was the only electrical sub-panel located within the structure. The owner had a workbench with a cabinet attached to the west wall. The fire had consumed both. There were two electrical outlets along the west wall. One outlet was originally installed and had two appliances plugged into it: a Milwaukee battery charger and an air compressor. The other outlet was just north of the sub-panel. This outlet appeared to have been added after the structure was built. The only device that was plugged into this device was an extension cord that fed a series of LED Christmas lights. The cord was fed under the garage roll-up door. Above the roll--up door were three glass panels that were damage by the fire. Within the center of the garage the owner had a pile of tires, an engine, and the transmission from the vehicle parked in the driveway. This vehicle was in the process of being restored. Along the north wall of the garage, they had a refrigerator that was plugged in and working at the time of the fire. Given the protected area behind the refrigerator and the condition of the electrical plug, the fire did not start behind the refrigerator. The east wall had fire damage but was still structurally intact. The roof over the garage had collapsed from the heat and from the fire destroying the center trusses.

Opinion & Conclusion:

The area of origin for this fire was on the west exterior wall of the garage. The point of origin is with the main electrical panel. This fire spread to the interior of the garage through contact with the vapor barrier paper used behind the aluminum siding.

Chris McCubbins
Assistant Fire Marshal
Sparks Fire Department

Sparks Fire Department
Supplemental
200 East Lincoln
13000036
January 2nd, 2013

On January 11th2013 the main electrical panel for 200 East Lincoln was released to David Stephans Enterprise at the request of Rick Stephans.

Basic	
Alarm Date and Time	01:55:40 Wednesday, January 2, 2013
Arrival Time	02:02:15
Controlled Date and Time	
Last Unit Cleared Date and Time	06:55:32 Wednesday, January 2, 2013
Response Time	0:06:35
Priority Response	Yes
Completed	Yes
Fire Department Station	1
Shift	C
Incident Type	111 - Building fire
Aid Given or Received	N - None
Alarms	1
Action Taken 1	81 - Incident command
Action Taken 2	11 - Extinguish
Action Taken 3	12 - Salvage & overhaul
Casualties	No
Apparatus - Suppression	7
Personnel - Suppression Personnel	16
Property Loss	$0.00
Contents Loss	$0.00
Detector Alerted occupants	2
Property Use	419 - 1 or 2 family dwelling
Location Type	Address
Address	200 E LINCOLN WY
City, State Zip	SPARKS, NV 89431
District	26
Directions	200 E. LINCOLN WY

Person Involved/Property Owner - [redacted]	
Occupies Property	Yes
Owner	Yes
Last Name	[redacted]
First Name	[redacted]
Street Address	200 E LINCOLN WY
City, State Zip	SPARKS, NV 89431
Phone	7756227439

Person Involved - , Unknown	
First Name	Unknown
Street Address	205 E. LINCOLN WY
Phone	7757753314

Person Involved - [redacted]	
Involvement Code	REP
Last Name	[redacted]
First Name	[redacted]
Business Name	Daughter of parents
Street Address	200 E LINCOLN WY

Person Involved - [redacted]	
City, State Zip	SPARKS, NV 89431

Person Involved - [redacted]	
Occupies Property	Yes
Last Name	[redacted]
First Name	[redacted]
Business Name	Husband of owner
Street Address	200 E LINCOLN WY
City, State Zip	SPARKS, NV 89431
Phone	7756225244

Person Involved - [redacted]	
Involvement Code	VIC
Last Name	[redacted]
First Name	[redacted]
Business Name	Son of parents
Street Address	200 E LINCOLN WY
City, State Zip	SPARKS, NV 89431

Fire	
Structure Type	1 - Enclosed building
Number of Residential	1
Area of Origin	47 - Vehicle storage area; garage, carport
Heat Source	UU - Undetermined
Item First Ignited	UU - Undetermined
Cause of Ignition	5 - Cause under investigation
Contribution To Ignition 1	UU - Undetermined

Structure	
Status	2 - In normal use
Floor of Origin	1
Stories Above Grade	1
Total Square Feet	1300
Fire Spread	5 - Beyond building of origin
Item Contributing To Spread	17 - Structural member or framing
Type of Material Contributing To	60 - Wood or paper, processed, other
Detector Presence	2
AES Presence	3

Apparatus - E11		
Apparatus ID	E11	
Response Time	0:03:18	
Apparatus Dispatch Date and Time	01:56:03	Wednesday, January 2, 2013
En route to scene date and time	01:58:57	Wednesday, January 2, 2013
Apparatus Arrival Date and Time	02:02:15	Wednesday, January 2, 2013
Apparatus Clear Date and Time	06:55:32	Wednesday, January 2, 2013
Apparatus priority response	Yes	
Number of People	3	

Apparatus - E11	
Apparatus Use	1
Apparatus Action Taken 1	81 - Incident command
Apparatus Action Taken 2	11 - Extinguish
Apparatus Action Taken 3	12 - Salvage & overhaul
Apparatus Action Taken 4	80 - Information, investigation & enforcement, other
Apparatus Type	11 - Engine
Personnel 1	10380 - McEvers, Shawn W
	Position: CAPT
	Personnel Action Taken 1: 81 - Incident command
	Personnel Action Taken 2: 11 - Extinguish
	Personnel Action Taken 3: 12 - Salvage & overhaul
	Personnel Action Taken 4: 80 - Information, investigation & enforcement, other
Personnel 2	14145 - Jacobsen, Laura
	Position: FF
	Personnel Action Taken 1: 11 - Extinguish
	Personnel Action Taken 2: 12 - Salvage & overhaul
Personnel 3	10452 - Jackson, Darren
	Position: FAO
	Personnel Action Taken 1: 58 - Operate apparatus or vehicle
	Personnel Action Taken 2: 76 - Provide water

Apparatus - E12	
Apparatus ID	E12
Response Time	0:03:42
Apparatus Dispatch Date and Time	01:56:04 Wednesday, January 2, 2013
En route to scene date and time	01:59:11 Wednesday, January 2, 2013
Apparatus Arrival Date and Time	02:02:53 Wednesday, January 2, 2013
Apparatus Clear Date and Time	06:23:13 Wednesday, January 2, 2013
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	11 - Extinguish
Apparatus Action Taken 2	12 - Salvage & overhaul
Apparatus Type	11 - Engine
Personnel 1	10451 - Holbrook, Sean A
	Position: CAPT
	Personnel Action Taken 1: 11 - Extinguish
	Personnel Action Taken 2: 12 - Salvage & overhaul
Personnel 2	10691 - Little, Denise
	Position: FAO
	Personnel Action Taken 1: 58 - Operate apparatus or vehicle
	Personnel Action Taken 2: 11 - Extinguish
	Personnel Action Taken 3: 12 - Salvage & overhaul
Personnel 3	14070 - Porter, Michael G
	Position: FF
	Personnel Action Taken 1: 11 - Extinguish
	Personnel Action Taken 2: 12 - Salvage & overhaul

Apparatus - E31	
Apparatus ID	E31
Response Time	0:03:35
Apparatus Dispatch Date and Time	01:56:04 Wednesday, January 2, 2013
En route to scene date and time	01:59:21 Wednesday, January 2, 2013
Apparatus Arrival Date and Time	02:02:56 Wednesday, January 2, 2013
Apparatus Clear Date and Time	03:35:47 Wednesday, January 2, 2013
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	221 - RIT
Apparatus Action Taken 2	11 - Extinguish
Apparatus Action Taken 3	12 - Salvage & overhaul
Apparatus Type	11 - Engine
Personnel 1	14146 - Norland, Matthew P
	Position: FF
	Personnel Action Taken 1: 221 - RIT
	Personnel Action Taken 2: 11 - Extinguish
	Personnel Action Taken 3: 12 - Salvage & overhaul
Personnel 2	10038 - Bussa, Randy
	Position: CAPT
	Personnel Action Taken 1: 221 - RIT
	Personnel Action Taken 2: 11 - Extinguish
	Personnel Action Taken 3: 12 - Salvage & overhaul
Personnel 3	10693 - Sullivan, Jeff
	Position: FAO
	Personnel Action Taken 1: 58 - Operate apparatus or vehicle
	Personnel Action Taken 2: 221 - RIT
	Personnel Action Taken 3: 11 - Extinguish
	Personnel Action Taken 4: 12 - Salvage & overhaul

Apparatus - E21	
Apparatus ID	E21
Response Time	0:04:28
Apparatus Dispatch Date and Time	01:56:04 Wednesday, January 2, 2013
En route to scene date and time	01:58:38 Wednesday, January 2, 2013
Apparatus Arrival Date and Time	02:03:06 Wednesday, January 2, 2013
Apparatus Clear Date and Time	05:19:09 Wednesday, January 2, 2013
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	11 - Extinguish
Apparatus Action Taken 2	12 - Salvage & overhaul
Apparatus Type	11 - Engine
Personnel 1	10449 - Elorza, Jason
	Position: CAPT
	Personnel Action Taken 1: 11 - Extinguish
	Personnel Action Taken 2: 12 - Salvage & overhaul
Personnel 2	10727 - Strandberg, James L
	Position: FF

Apparatus - E21	
	Personnel Action Taken 1: 11 - Extinguish
	Personnel Action Taken 2: 12 - Salvage & overhaul
Personnel 3	10692 - Palmer, Jacob
	Position: FF
	Personnel Action Taken 1: 58 - Operate apparatus or vehicle
	Personnel Action Taken 2: 11 - Extinguish
	Personnel Action Taken 3: 12 - Salvage & overhaul

Apparatus - T11	
Apparatus ID	T11
Response Time	0:05:50
Apparatus Dispatch Date and Time	01:56:03 Wednesday, January 2, 2013
En route to scene date and time	01:59:16 Wednesday, January 2, 2013
Apparatus Arrival Date and Time	02:05:06 Wednesday, January 2, 2013
Apparatus Clear Date and Time	06:08:21 Wednesday, January 2, 2013
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	21 - Search
Apparatus Action Taken 2	22 - Rescue, remove from harm
Apparatus Action Taken 3	12 - Salvage & overhaul
Apparatus Action Taken 4	51 - Ventilate
Apparatus Type	12 - Truck or aerial
Personnel 1	10347 - Means, Scott
	Position: CAPT
	Personnel Action Taken 1: 21 - Search
	Personnel Action Taken 2: 22 - Rescue, remove from harm
	Personnel Action Taken 3: 12 - Salvage & overhaul
	Personnel Action Taken 4: 51 - Ventilate
Personnel 2	10806 - Joseph, Matthew R
	Position: FF
	Personnel Action Taken 1: 21 - Search
	Personnel Action Taken 2: 22 - Rescue, remove from harm
	Personnel Action Taken 3: 12 - Salvage & overhaul
	Personnel Action Taken 4: 51 - Ventilate
Personnel 3	10135 - Crawford, Ed P
	Position: FAO
	Personnel Action Taken 1: 58 - Operate apparatus or vehicle
	Personnel Action Taken 2: 21 - Search
	Personnel Action Taken 3: 22 - Rescue, remove from harm
	Personnel Action Taken 4: 12 - Salvage & overhaul

Apparatus - BC3	
Apparatus ID	BC3
Response Time	0:02:03
Apparatus Dispatch Date and Time	02:04:12 Wednesday, January 2, 2013
En route to scene date and time	02:04:15 Wednesday, January 2, 2013
Apparatus Arrival Date and Time	02:06:18 Wednesday, January 2, 2013

Apparatus - BC3	
Apparatus Clear Date and Time	06:49:26 Wednesday, January 2, 2013
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Action Taken 1	81 - Incident command
Apparatus Type	92 - Chief officer car
Personnel 1	10180 - Niehaus, David C
	Position: BC
	Personnel Action Taken 1: 81 - Incident command

Apparatus - P2	
Apparatus ID	P2
Response Time	0:05:58
Apparatus Dispatch Date and Time	03:18:08 Wednesday, January 2, 2013
En route to scene date and time	03:18:13 Wednesday, January 2, 2013
Apparatus Arrival Date and Time	03:24:11 Wednesday, January 2, 2013
Apparatus Clear Date and Time	06:26:32 Wednesday, January 2, 2013
Apparatus priority response	Yes
Apparatus Use	1
Apparatus Action Taken 1	86 - Investigate
Apparatus Type	00 - Other apparatus/resource

Authority	
Reported By	10380 - McEvers, Shawn W
	07:57:05 Thursday, January 3, 2013
Officer In Charge	10380 - McEvers, Shawn W
	21:40:53 Wednesday, January 2, 2013
Reviewer	-,

Narratives	
Narrative Name	Narrative
Narrative Type	Narrative
Author	-,
Narrative Name	E11 - McEvers
Narrative Type	Incident
Narrative Date	17:44:19 Wednesday, January 2, 2013
Author	10380 - McEvers, Shawn W
Author Rank	CAPT
Author Assignment	1
Narrative Text	At 0155 hours on Wednesday January 2, 2013 we were dispatched to a building fire. Seven units were assigned to this incident. Fourteen personnel responded. We arrived on scene at 0202 hours and cleared at 0655 hours. The incident occurred at 200 E LINCOLN Wy, SPARKS in District 26. The local station is 1. The general description of this property is 1 or 2 family dwelling. The primary task(s) performed at the scene by responding personnel was incident command. No mutual/automatic aid was given or received. The involved structure is described as an enclosed building. The building was occupied

Narratives

and operating. "Vehicle storage area; garage, carport" best describes the primary use of the room or space where the fire originated. The fire spread beyond the building of origin. The cause of ignition is under investigation.

Alarm number 1300036 has been assigned to this incident.

First Alarm response to a reported structure fire. While enroute resources were advised that SPD was on scene of a house fully engulfed and all occupants were out of the house. E-11 arrived on scene to find heavy fire conditions on the A and B sides of the structure with three vehicles on fire in the driveway. A second structure was beginning to catch fire at 180 E. Lincoln WY. E-11 established Lincoln command and prepared for a defensive transition fire attack. Command assigned other resources. See other resource narratives. Command tied in with SPD to confirm all occupants were out of the house. SPD and occupants confirmed all were out of the house except a dog was possibly inside missing. E-11 deployed the monitor and conducted a walk around of the incident. BC3 arrived and was briefed on the situation face to face. Command was passed to BC3. E-11 shut down the monitor and prepared for an interior attack thru the C side of the structure. E-11 and T-11 made entry and extinguished fire while T-11 conducted a primary search. E-11 investigated and found no active fire extension into the attic. E-11 finished of first air bottles and exited the structure to exchange air bottles. E-11 continued salvage and overhaul operations with two more air bottle exchanges. E-11 obtained info and history for fire report. E-11 finished salvage and overhaul operations. E-11 was complete.

Narrative Name	E12 - Holbrook Narr.
Narrative Type	Incident
Narrative Date	17:19:11 Wednesday, January 2, 2013
Author	10451 - Holbrook, Sean A
Author Rank	CAPT
Author Assignment	1
Narrative Text	At 0155 hours on Wednesday January 2, 2013 we were dispatched to a building fire. Seven units were assigned to this incident. Fourteen personnel responded. We arrived on scene at 0202 hours and cleared at 0655 hours. The incident occurred at 200 E LINCOLN Wy, SPARKS in District 26. The local station is 1. The general description of this property is 1 or 2 family dwelling. The primary task(s) performed at the scene by responding personnel was incident command. No mutual/automatic aid was given or received.

The involved structure is described as an enclosed building. The building was occupied and operating. "Vehicle storage area; garage, carport" best describes the primary use of the room or space where the fire originated. The fire spread beyond the building of origin. The cause of ignition is under investigation.

Alarm number 1300036 has been assigned to this incident.

Holbrook Narrative

E-12 responded to a first alarm assignment for a structure fire. E-12 was the second arriving engine and assigned to water supply. E-12 pulled a 5" supply line from E-11 and established a water supply from the hydrant at 180 E. Lincoln to E-11. E-12 then pulled a secondary, 250',1 3/4" attack line from E-11 and began attacking the fire in the garage

Narratives

from the 'A' side of the building. E-12 crew then pulled the same attack line around to the rear of the structure for E-11 to make entry on the 'C' side of the building. E-12 assisted with pulling ceiling in the family room and kitchen while E-11 attacked the fire, until E-12 crew depleted air bottles. E-12 crew changed out air bottles and served as a back team for E-11 at the rear of the building. E-12 swapped with E-11 on the nozzle and assisted with overhauling the kitchen and garage area, until second round of air bottles were depleted. E-12 rehabbed and assisted with cleaning up the scene. E-12 left the scene with E-11 and BC-3.

Narrative Name	E31
Narrative Type	Incident
Narrative Date	17:46:44 Wednesday, January 2, 2013
Author	10693 - Sullivan, Jeff
Author Rank	FAO
Author Assignment	1
Narrative Text	At 0155 hours on Wednesday January 2, 2013 we were dispatched to a building fire. Seven units were assigned to this incident. Fourteen personnel responded. We arrived on scene at 0202 hours and cleared at 0655 hours. The incident occurred at 200 E LINCOLN Wy, SPARKS in District 26. The local station is 1. The general description of this property is 1 or 2 family dwelling. The primary task(s) performed at the scene by responding personnel was incident command. No mutual/automatic aid was given or received. The involved structure is described as an enclosed building. The building was occupied and operating. "Vehicle storage area; garage, carport" best describes the primary use of the room or space where the fire originated. The fire spread beyond the building of origin. The cause of ignition is under investigation. Alarm number 1300036 has been assigned to this incident. --- FAO Sullivan narrative E-31 responded to the report of a structure fire. Upon arrival, E-31 was assigned RIT. E-31 set up and operated as a 3 person RIT team without incident. After the incident was under control and overhaul was underway, E-31 took on various support duties such as: Pulling exterior siding on the "B" side of the involved structure, Applying fire line tape to secure an area around a weakened support pillar on the "AB" corner of the involved structure. Laddering the "A" side of the involved structure to check voids for fire extension. Assisting the Truck company with overhaul and removal of garage debris. Extinguishing various hot spots in the garage area of the involved structure. Securing/chocking the exposure vehicles in the involved structures driveway. E-31 was released and completed the incident.

Narrative Name	E21 - Elorza
Narrative Type	Incident
Narrative Date	18:05:08 Wednesday, January 2, 2013
Author	10449 - Elorza, Jason
Author Rank	CAPT

Narratives	
Author Assignment	1
Narrative Text	E21 was assigned structure protection of the immediate exposure to the west. E21 pulled a pre-connect off E11 and began cooling the D side of the exposure. E21 also applied intermittent water to the involved structure. E21 informed fire ground of a leaning walls on both the A and D side of the involved structure. E21 also informed command that the electric panel located at the A D corner of the involved structure was heavily damaged and would require NV Energy to disconnect the power at the transformer. E21 made entry into the exposure to check interior conditions. The house was clear of smoke but the garage had a slight haze. Once the main body of fire was knocked down in the involved house E21 opened up the garage of the exposure to ventilate. E21 went into the attic of the exposure to check for any signs of extension from the chard D side exterior wall. E21 did not find any extension or smoke in the attic of the exposure. E21 removed a large section of exterior siding from the D side of the exposure. There was very little heat damage behind the exterior siding on the D side. E21 assisted cooling hot spots in the garage of the involved structure and removed a smoldering seat from an exposed truck in the driveway. E21 assisted breaking down hose lines. E21 returned available.
	Elorza
Narrative Name	T11 - Means
Narrative Type	Incident
Narrative Date	20:04:36 Wednesday, January 2, 2013
Author	10380 - McEvers, Shawn W
Author Rank	CAPT
Author Assignment	1
Narrative Text	At 0155 hours on Wednesday January 2, 2013 we were dispatched to a building fire. Seven units were assigned to this incident. Sixteen personnel responded. We arrived on scene at 0202 hours and cleared at 0655 hours. The incident occurred at 200 E LINCOLN Wy, SPARKS in District 26. The local station is 1. The general description of this property is 1 or 2 family dwelling. The primary task(s) performed at the scene by responding personnel was incident command. No mutual/automatic aid was given or received. The involved structure is described as an enclosed building. The building was occupied and operating. "Vehicle storage area; garage, carport" best describes the primary use of the room or space where the fire originated. This building has one story above ground. The fire occurred on the first floor. The fire spread beyond the building of origin. The cause of ignition is under investigation. The material contributing most to flame spread was "wood or paper, processed". The use, or purpose of the contributing material was "structural member or framing". Alarm number 1300036 has been assigned to this incident. T11 responded with a first alarm to the above address for structure fire. Upon arrival command gave us the assignment to evacuate the structure to the west. After completing the previous assignment we were given orders to secure utilities. T11 was unable to find the electrical box because it was involved the the main body of fire. The gas meter was secured and T11 met up with E11 at the rear of the structure. T11 entered the structure with E11 and performed a primary search and found the family dog in the first room on the A side of the structure. The dog was unharmed and evacuated outside to the family.T11

Narratives

then assisted in savage and overhaul and performed a secondary search. T11 was released and completed. A few hours later we assisted FPB with gathering evidence from the fire.

Narrative Name	BC3 - Required
Narrative Type	Incident
Narrative Date	20:04:30 Wednesday, January 2, 2013
Author	10380 - McEvers, Shawn W
Author Rank	CAPT
Author Assignment	1
Narrative Text	At 0155 hours on Wednesday January 2, 2013 we were dispatched to a building fire. Seven units were assigned to this incident. Sixteen personnel responded. We arrived on scene at 0202 hours and cleared at 0655 hours. The incident occurred at 200 E LINCOLN Wy, SPARKS in District 26. The local station is 1. The general description of this property is 1 or 2 family dwelling. The primary task(s) performed at the scene by responding personnel was incident command. No mutual/automatic aid was given or received. The involved structure is described as an enclosed building. The building was occupied and operating. "Vehicle storage area; garage, carport" best describes the primary use of the room or space where the fire originated. This building has one story above ground. The fire occurred on the first floor. The fire spread beyond the building of origin. The cause of ignition is under investigation. The material contributing most to flame spread was "wood or paper, processed". The use, or purpose of the contributing material was "structural member or framing". Alarm number 1300036 has been assigned to this incident.

Narrative Name	P2 - Required
Narrative Type	Incident
Narrative Date	20:04:23 Wednesday, January 2, 2013
Author	10380 - McEvers, Shawn W
Author Rank	CAPT
Author Assignment	1
Narrative Text	At 0155 hours on Wednesday January 2, 2013 we were dispatched to a building fire. Seven units were assigned to this incident. Sixteen personnel responded. We arrived on scene at 0202 hours and cleared at 0655 hours. The incident occurred at 200 E LINCOLN Wy, SPARKS in District 26. The local station is 1. The general description of this property is 1 or 2 family dwelling. The primary task(s) performed at the scene by responding personnel was incident command. No mutual/automatic aid was given or received. The involved structure is described as an enclosed building. The building was occupied and operating. "Vehicle storage area; garage, carport" best describes the primary use of the room or space where the fire originated. This building has one story above ground. The fire occurred on the first floor. The fire spread beyond the building of origin. The cause of ignition is under investigation. The material contributing most to flame spread was "wood or paper, processed". The use, or purpose of the contributing material was "structural member or framing". Alarm number 1300036 has been assigned to this incident.

Special Studies	
Special Study Name	Special Study 1
Special Study ID	1

End of Report

City of Sparks Fire Department

Fire Investigators Supplement

Date	1-2-13	Investigator	McCubbins	2nd Investigator	-	Loss	100,000
Incident #	1300036	Address	200 E. Lincoln Way				
Initial Time	4.0	Re-investigation time	3.0				
Type	Structure	Smoke Alarm	None Present	Cause	Undetermined		
Ignition	Undetermined	Suspect	-				
Evidence	Yes	Photographs	Yes	Disposition	Open - Pending Inv.		

General Information: I was contacted by Dispatch and requested to investigate a structure fire at 200 E. Lincoln Way. Upon my arrival I met with BC Niehaus and we decided that the structure was unsafe and the fire was not completely out. I started my investigation by interviewing the owners.
After investigating the fire scene it is a possibility that the cause is related to a Smart Meter. For this reason I collected the electrical panel. This fire started within the garage area on the west wall.
This house is not livable and the owners refused any assistants from Red Cross. They will be staying at his mother's house on Lyski Drive.
The owner stated that he had removed all of the smoke detectors for a remodel that he was doing. This fire was detected by the daughter. She woke everyone up and alerted them to a popping sound in the garage. When the owner went to check he opened the door and saw flames and smoke. He then got everyone out and called 911.
This fire is still under investigation.

McCubbins, Chris

From: Olsen, Fred
Sent: Wednesday, January 02, 2013 1:30 PM
To: McCubbins, Christopher
Cc: Meranda, Mark
Subject: sfr fire at 200 E. Lincoln Wy

Hello Chris,
I got your message earlier and stopped by the above address and you're right there is major damage to the structure. The house was boarded up but by the looks of the nearly collapsed garage and adjoining house fire-wall area this will require a structural report by a qualified engineer prior to a permit issuance for reconstruction. I will enter the above information in "Site" for future reference. Thank you for the alert Chris!

I spoke with the neighbor to the west (180 E. Lincoln) and he informed me NVEnergy replaced his meter after his melted from the fire. The electric panel looked fine, but he did have his garage siding pulled away to stop the fire from getting into his attic, his eves had charring and smoke damage showing.

Fred

McCubbins, Christopher

From: Garrison, Tom
Sent: Wednesday, January 02, 2013 4:11 AM
Attachments: Structure Fire 200 Block E Liincoln Way.pdf

For immediate release: January 2, 2013

SPARKS FIRE DEPARTMENT – MEDIA RELEASE

Structure Fire – 200 Block E Lincoln Way

- The Sparks Fire Department is currently on scene of a structure fire in the 200 block of E Lincoln Way.
- First arriving companies found the garage of the single family residence fully involved.
- The occupants of the home were out of the structure when the fire department arrived.
- The majority of the fire was contained to the garage, but some damage occurred to the kitchen of the home.
- One dog was rescued from the home.
- The exterior siding of the home next to the fire was also slightly damaged from the heat.
- The fire is currently under investigation, with no cause as yet determined.
- 17 fire personnel responded including a Battalion Chief, four engines, a truck company, and a fire investigator.
- There were no injuries to occupants or fire personnel.
- Information current as of 4:00am January 2, 2013.

WITNESS STATEMENT
FIELD NOTES 906-6

AGENCY	FILE NUMBER

IDENTIFICATION

NAME	ADDRESS	PHONE NO.
[redacted]	200 E Lincoln way	[redacted]
RACE / SEX / AGE	**DATE OF BIRTH / SOC. SECURITY NO.**	**DRIVER'S LIC. NO.**
[redacted]	[redacted]	[redacted]
EMPLOYER	**ADDRESS**	**PHONE NO.**
DPS NV Highway Patrol	357 Hammill Ln	[redacted]
RELATIONSHIP TO INCIDENT	**CAN BE CONTACTED AT**	
Self	[redacted] cell or [redacted]	
STATEMENT TAKEN BY	**LOCATION, DATE, AND TIME OF STATEMENT**	

STATEMENT

I was asleep when my kids woke myself & fiance up. (~~Mike~~) They thought someone was trying to break into the house. Mike went to look in the garage and noticed smoke & fire. He advised us to get out of the house because it was on fire. I then called 911 to advise my house was on fire and needed the fire department. We then met our kids Jazmine & Miguel outside infront of the house with one of our dogs. Our male dog (Scherlock) was trapped in the house, our female dog (Molly) was outside with us.

We will be staying @ 20 Lyyski Sparks NV

[redacted]

2 Cars plus House

Plan # [redacted]

Figure 2-2.7(a) Witness statement field notes (Form 906-6).

WITNESS STATEMENT
FIELD NOTES 906-6

AGENCY	FILE NUMBER

IDENTIFICATION

NAME	ADDRESS	PHONE NO.
[redacted]	200 E. LINCOLN WAY SPARKS NV	[redacted]

RACE	SEX	AGE	DATE OF BIRTH	SOC. SECURITY NO.	DRIVER'S LIC. NO.
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	

EMPLOYER	ADDRESS	PHONE NO.
WESTERN NEVADA SUPPLY	950 S. ROCK BLVD SPARKS NV.	[redacted]

RELATIONSHIP TO INCIDENT	CAN BE CONTACTED AT
SELF	[redacted]

STATEMENT TAKEN BY	LOCATION, DATE, AND TIME OF STATEMENT
CHRIS M' CUBBINS	175 E LINCOLN WAY SPARKS 1/2/2013 3:50 AM

STATEMENT

I WAS ASLEEP IN BED WHEN MY KIDS ([redacted] & [redacted]) WOKE ~~ME~~ US UP AND SAID IT SOUNDED LIKE SOMEONE WAS BANGING ON OUR ~~GARAGE~~ GARAGE DOOR. AS I WALKED TO GARAGE DOOR I COULD HE~~AR~~ LOUD POPPING AND BANGING AND SMELT SMOKE. TOUCHING THE DOOR KNOB IT FELT WARM I OPENED AND QUICKLY CLOSED THE DOOR. (YELLED FIRE AND TOLD MY FIANCE TO GET OUT OF THE HOUSE.) WE ALL EXITED THE HOME, AND CALLED 911.

Figure 2-2.7(a) Witness statement field notes (Form 906-6).

The City of Sparks

FIRE DEPARTMENT
FIRE CHIEF
Thomas Clewell

RECEIPT

DATE: 1/11/13
RECEIVED FROM: DONALD W PARSONS
PROPERTY RECEIVED: DAVID STEPHAN ENT.

QUANTITY	ITEM
1	METER SOCKET W/ MAIN PWR PANEL
1	SUB METER W/ FRAMING

Donald W Parsons (Signed) — FIRE INSPECTOR (Title)

Mick Jadlowski (Witness) — 1/11/13 (Date)

D.S.E. [signature]

Form
9-7-95

Headquarters: 1605 Victorian Avenue • Sparks, Nevada 89431-4895 • (775) 353-2255 • FAX (775) 353-2424
Fire Prevention Bureau: (775) 353-2266 • FAX (775) 353-2396

DSE

EVIDENCE TRANSMITTAL FORM

DSE No. 1310001

Insured SARA Macias

Date of Fire 1 2 13

Date Evidence Taken 1/10/13

Loss Location 700 E Lincoln Way SPARKS NV

Date Submitted Same

Evidence Taken By Rickey Stephan

Evidence received by R-S.

Evidence Transported by Rickey Stephan

Laboratory Processing Evidence DSE
(Or location evidence transferred to)

LIST OF ITEMS	LOCATION TAKEN
1. Electrical (Supply Panel Breakers)	SFD
2.	SPARKS Fire Dept
3. ONE Bag Fire Debris.	
4.	
5.	
6.	

Mail copy of report to: DSI, David Stephan, 632 Jenny's Lane, Fernley, NV 89408

Fax copy of report to: 775-575-0472

Original report and invoice to:

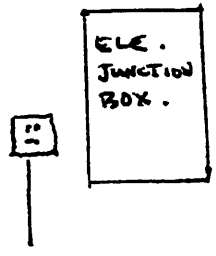
Address: Claim No:

Examination requested:

X Person Released Evidence Sparks Fire

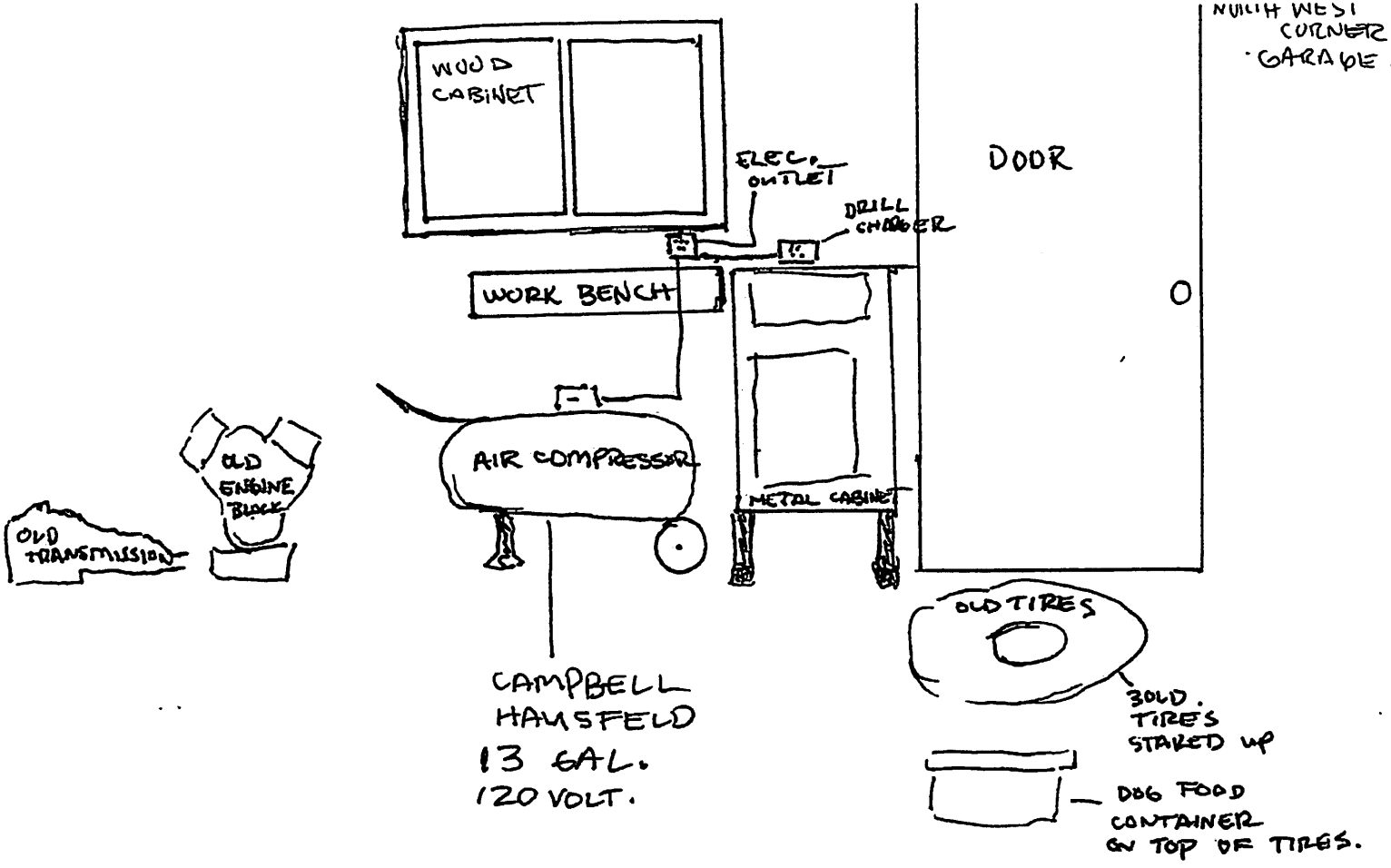
(Rev.4/04))

SOUTH WEST CORNER GARAGE



ELECTRICAL OUTLET
CHRISTMAS LIGHT PLUGGED IN HERE.

NORTH WEST CORNER GARAGE.



MOTHERS HOME

ADDRESS WHERE [redacted] WE WILL BE STAYING
620 LYYSKI ST SPARKS NV 89431
HOME PHONE. [redacted]

PHOTOGRAPHS

FIELD NOTES 906-S

ROLL NO.	AGENCY	FILE NUMBER
	Sparks Fire	1300036

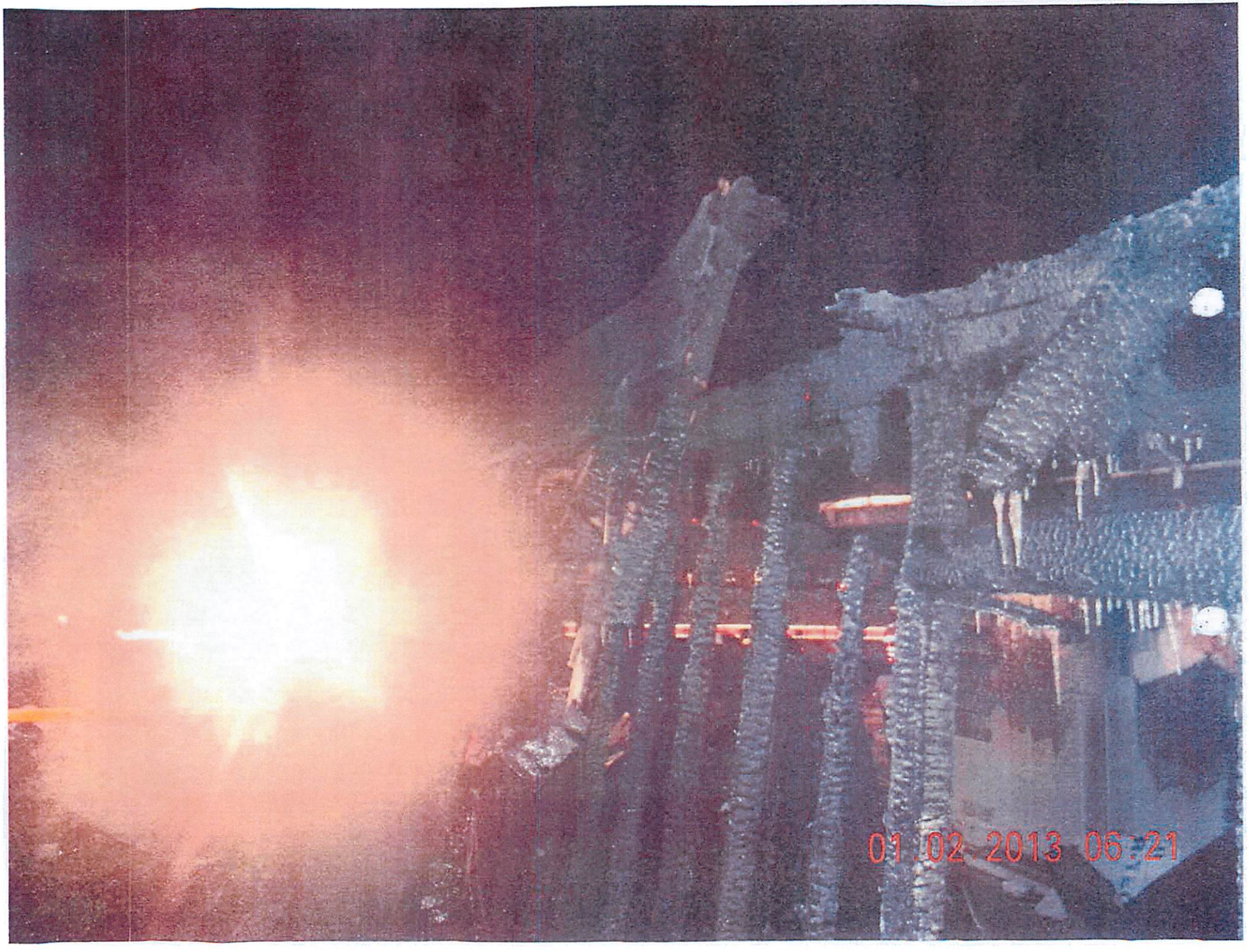
***ONLY ONE ROLL OF FILM PER FORM.**

NEG. NO.	DESCRIPTION	NEG. NO.	DESCRIPTION
1	Vehicle parked in front 200 E. Lincoln	21	Meter ring
2	Enterance into 200 E Lincoln "A" Side	22	Meter ring
3	Vehicle Parked in Driveway	23	Meter cover
4	Vehicle Parked in Driveway	24	Inside of meter cover
5	"A" side of garage	25	Meter cover
6	"A" Side of garage	26	Meter cover
7	Top side view outside of Main Electrical Panel	27	
8	Exposure to the East	28	
9	Main Electrical Panel	29	
10	Above Main Electrical Panel	30	
11	Ground to panel	31	
12	Sub Panel found inside gargae	32	
13	Above Sub Panel	33	
14	Above Sub Panel	34	
15	Wiring above sub panel	35	
16	Garage view	36	
17	Kitchen looking twords garage	37	
18	East wall of garage	38	
19	Living room	39	
20	Fence east side of garage	40	

REMARKS

01.02.2013 06:21

01.02.2013 06:21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01.02.2013.06.24

01.02.2013 06:34

01.02.2013 10:04

01.02.2013 10:05

01.02.2013 10:05

01.02.2013 10:05

01.02.2013 10:05

01.02.2013 10:05

NISSAN
01.02.2013 05:16

01.02.2013 05:16

NEVADA
30D XXT
01.02.2013 05:17

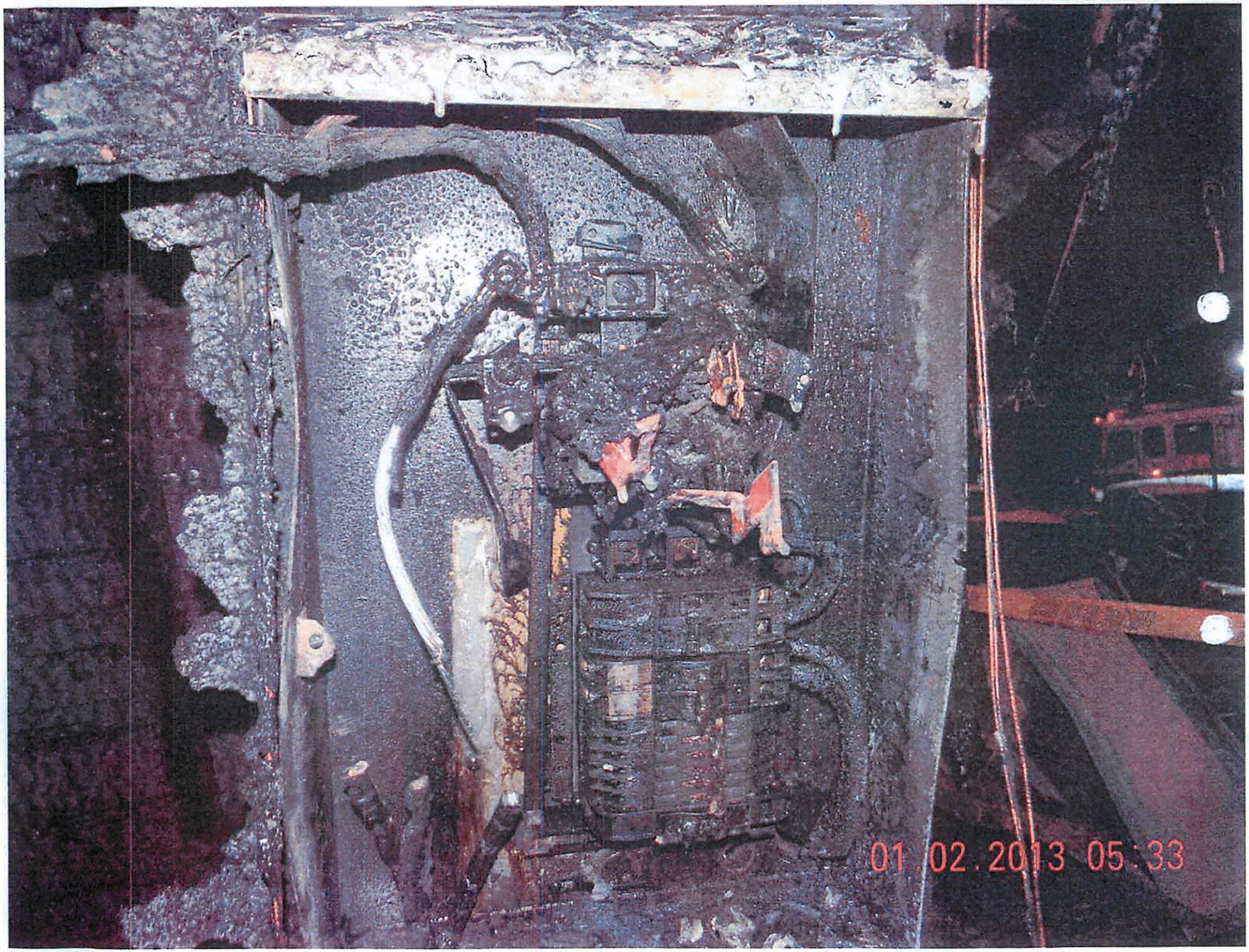
RAV4
825-9555
NEVADA
331 YFA
BUDGET MOTORS
01.02.2013 05:17

E LINE DO NOT CROSS
FIRE LINE DO NOT CROSS
01.02.2013 05:19

INE DO NOT CROSS
FIRE LINE DO NOT CROSS
01.02.2013 05:19

01.02.2013 05:20

01.02.2013 05:21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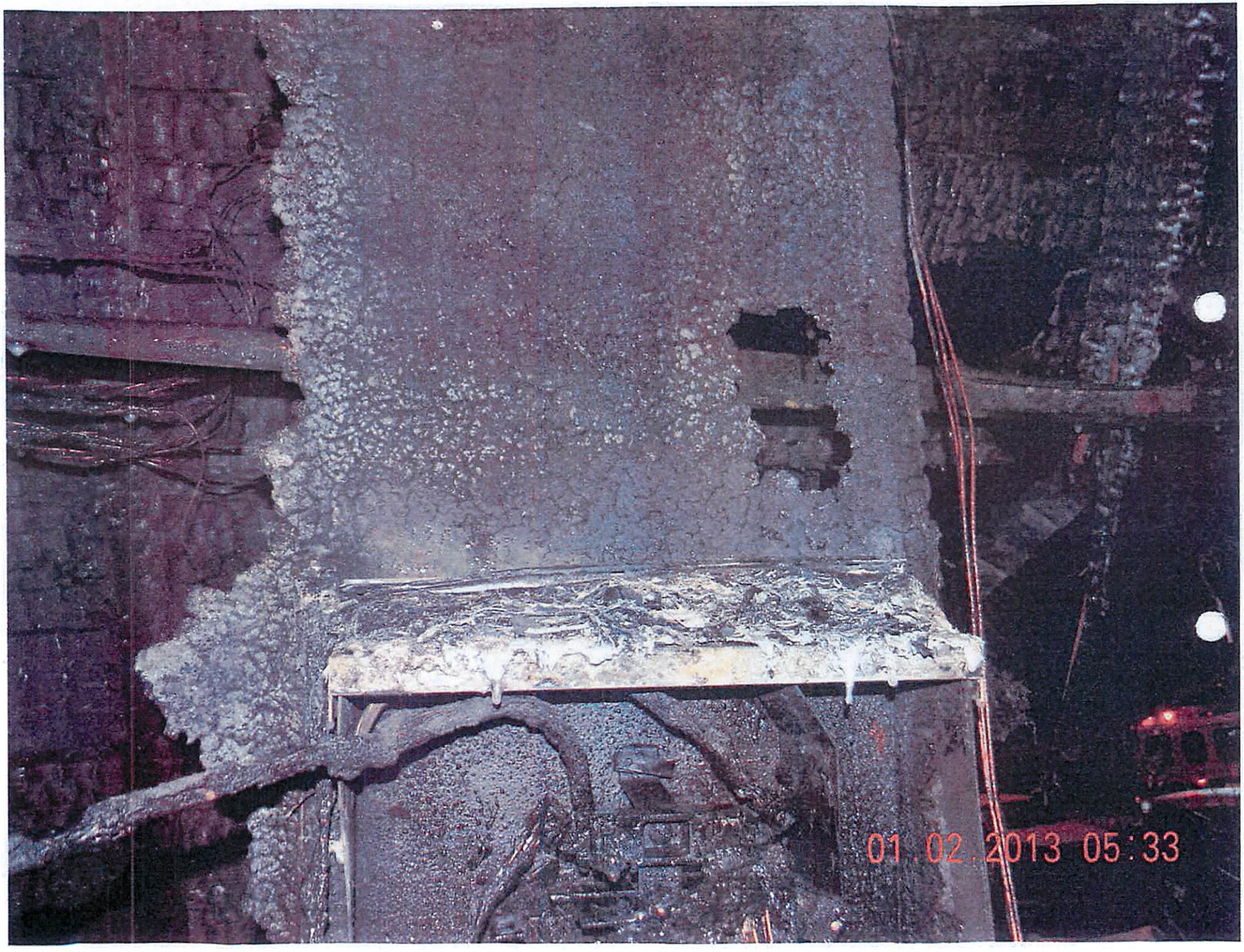
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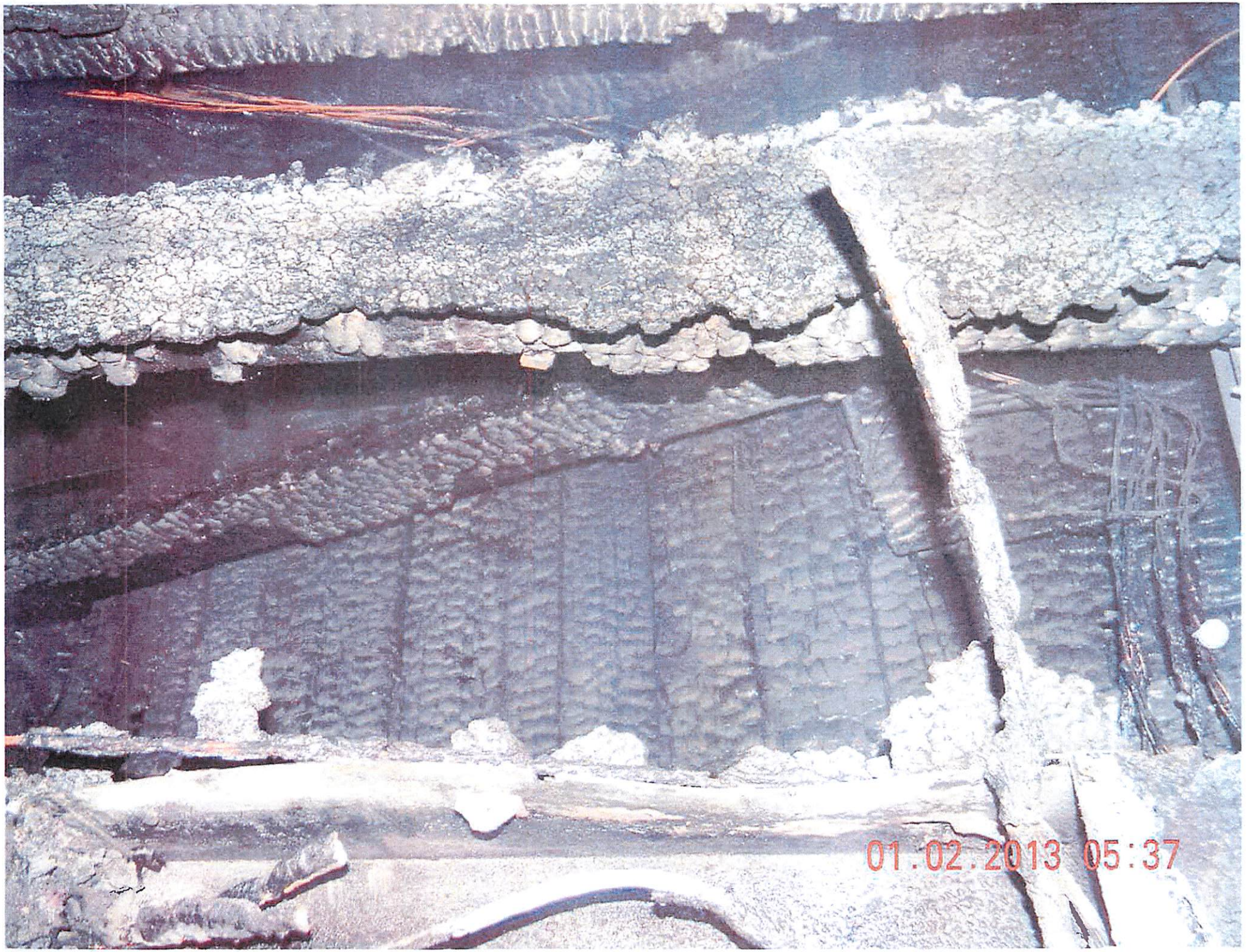
01.02.2013 05:34

01.02.2013 05:35

01.02.2013 05:35

01.02.2013 05:36


01.02.2013 05:37

ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

ATTACHMENT G.2

200 East Lincoln Way, Sparks
January 2, 2013 Incident

NV Energy Documents

ENGINEERING FORENSICS EXPERTS LLC
George J. Hogge PE
3136 E. Leland Circle
Mesa, AZ 85213
Phone: (602) 721-4202 Fax: (480) 664-7589
www.efxforensics.com

ENGINEERING EXAMINATION and ANALYSIS REPORT #1

File No: 3719-0111

Prepared for:
NV Energy
6226 W. Sahara Avenue, MS #3A
Las Vegas, NV 89146
Attn: Brandon M. Barkhuff, Assistant General Counsel

Claimant:	Macias, Sarah
Date of Occurrence:	12/30/12
Location of Occurrence:	200 E. Lincoln Way, Sparks, NV

Dates of Examinations:
1. Scene and Evidence Examinations: 1/11/13

CONTENTS:

(A) SUMMARY:
(B) ENCLOSURES:
(C) INSTRUCTIONS:
(D) BACKGROUND:
(E) SCENE AND EVIDENCE EXAMINATIONS:
(F) ANALYSIS:
(G) CONCLUSION:
(H) COMMENTS:
(I) PHOTO SHEETS

The investigation activities and reporting have been conducted in accordance with the following standards among others:

- NFPA 921-2011 Edition "Guide for Fire and Explosion Investigations"
- ASTM E620–04 "Standard Practice for Reporting Opinions of Scientific or Technical Experts"
- ASTM E678–07 "Standard Practice for Evaluation of Scientific or Technical Data"
- ASTM E860–07 "Standard Practice for Examining And Preparing Items That Are Or May Become Involved In Criminal or Civil Litigation"
- ASTM E1020–96 (Reapproved 2006) "Standard Practice for Reporting Incidents that May Involve Criminal or Civil Litigation"
- ASTM E1188–05 "Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator"
- ASTM E2332–04 "Standard Practice for Investigation and Analysis of Physical Component Failures"

As defined in the NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition, the proper methodology for the investigation and analysis of any fire cause is to utilize the Scientific Method:

3.3.144 Scientific Method. *The systematic pursuit of knowledge involving the recognition and formulation of a problem, the collection of data through observation and experiment, and the formulation and testing of a hypothesis.*

The following flow chart is shown in NFPA 921 to illustrate the basic premise of the scientific method to develop and test hypotheses to determine the cause of a fire:

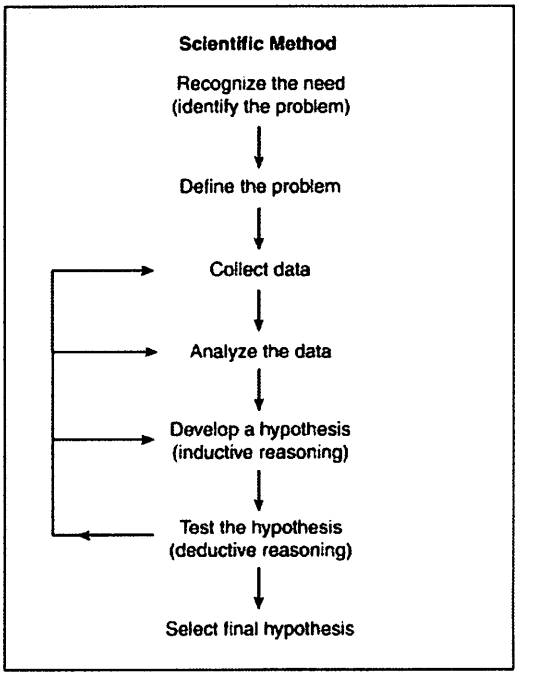


FIGURE 4.3 Use of the Scientific Method.

(A) SUMMARY:

It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the NV Energy meter and service wiring are positively eliminated as a possible cause of this fire. Furthermore, the fire could not have possibly originated at the vicinity of the electrical service meter or any other equipment under the control of NV Energy.

There were a number of appliances in use in the garage that could not be eliminated as a likely cause of this fire. The refrigerator was badly damaged and was not tested or examined. There was a Milwaukee battery charger for cordless power tools plugged in and charging. The extension cord that the insured had extended through the vent alongside the sheet metal vent cover for Christmas lighting cannot be eliminated as a likely cause of this fire. The lowest burn and greatest damage to that west garage wall are at the location of that vent.

The damages to the metering panel and meter are typical of external fire attack while the meter is still energized. These service laterals are fed by a transformer that typically serves up to 8 houses, therefore they are capable of providing a large current such that when the fire melts through the plastic meter cover there will be significant electrical activity within the meter before the service lateral is severed or the transformer fuse (if equipped) blows. There is no evidence of any failure of the meter or service lateral.

The fact that there was arcing on the surface of the sub panel that was mounted on the interior wall of the garage positively proves that it is not physically possible for this fire to have originated at the exterior where the service meter was located. The tripped circuit breakers in that panel further prove that it was physically impossible for the fire to originate at the service meter as those tripped breakers are indicative of fire attack on the home runs in the attic above the garage. These facts are proven using arc mapping.

The relatively less burned physical condition of the soffit over the electrical service metering panel also positively proves that this fire could not have originated at the meter.

There is also a considerable issue with evidence spoliation due to the removal of the service equipment and the cutting of all of the associated conductors without any effort to mark or preserve them for tracing and analysis

(B) ENCLOSURES:

1. 33 color images of evidence examination (from digital photographs) with descriptions.

2. Itemized invoice for Forensic Engineering services to date.

(C) INSTRUCTIONS:

Original instructions were received from Mick Jadlowski CFI representing NV Energy for George J. Hogge PE, Principal Electrical Engineer to travel to Sparks Nevada and conduct an Engineering Examination of the scene and artifacts retained to confirm or negate any electrical or mechanical failure as the cause of a fire.

Further instructions were received from Brandon M. Barkhuff, Assistant General Counsel of NV Energy to provide a written Engineering Report.

(D) BACKGROUND:

An Origin and Cause investigation was conducted by Mick Jadlowski CFI, Certified Fire Investigator of Rimkus Consulting. Mick Jadlowski CFI found that the origin of the fire was on the interior of the garage area.

The insured indicated that at about 2:30 am the kids were playing on the WII and heard some popping noises coming from the inside of the garage. He stated that he opened the door between the house and garage and saw fire inside the garage. He stated that items plugged in within the garage included a refrigerator, compressor, Milwaukee cordless tool battery charger, and an extension cord for Christmas lighting that will be discussed below.

(E) SCENE AND EVIDENCE EXAMINATIONS:

An Electrical Engineering Examination was conducted at the scene and later at the Sparks Fire Department building on January 11, 2013. Present were George J. Hogge PE and Mick Jadlowski CFI. A number of photographs were taken during those examinations in digital format. Selected photos are attached below.

The house was a 1 story residential structure constructed with wood framing and wood siding supported by a concrete slab on grade (Photo 1). The sloped roof was supported with wood trusses and finished with asphalt shingles. The damages were most severe at the west wall of the garage which was at the southwest corner of the house.

The electrical service to the home had been mounted to the exterior of the west garage wall about 5 feet from the southwest corner of the house (Photos 2-4). The only portion of the electrical service that remained when we arrived was the steel riser conduit and portions of the aluminum service lateral (Photos 5-6). Portions of the service lateral and some of the branch circuit romex conductors had been cut and wrapped around the steel riser conduit with no effort made to mark them or preserve the original post fire condition.

The electrical branch circuit wiring within the home was installed using copper Type NM Non Metallic Sheathed Cables, which are intended for and suitable for such use in a residential structure. For purposes of this report, the Type NM cables will be referred to by the trade jargon of "romex". A typical romex cable will have an outer thermoplastic

sheath surrounding a specific number of insulated "current carrying" conductors as well as one (1) non-insulated conductor that is intended to be used as a ground conductor only. The number of insulated conductors is typically stated in the sizing convention, for example 14/2 romex will have two (2) insulated #14 AWG conductors and a non-insulated ground. The first run of romex that extends from the circuit breaker panel into the structure is typically referred to as the "home run" until it reaches the first device or load.

One of the branch circuits including a duplex receptacle had been wrapped around the steel riser with no indication of where it had been in the wall or if anything had been plugged into that receptacle (Photo 7).

The home runs that penetrated into the attic were still found extending through the penetrations at the top header plate of that west garage wall (Photos 8-11). Those conductors had previously been cut near the circuit breaker panels without any attempt to mark them for future tracing or examination (Photo 11). The continuations of those home runs through the attic were mostly severed over the garage area and the remaining portions had been wadded up and moved about carelessly (Photos 12). No documentation was provided for where they had been after the fire suppression.

A number of melted areas of copper conductor were found on those conductors from the attic over the garage (Photos 12-15). Most of those home runs from the garage attic were missing and could not be examined properly. Some of the melted areas had damages consistent with arcing, indicative that those home runs were still energized when the fire reached them within the attic over the garage. The home runs were all severed at the north garage wall where they extended into the attic space over the living area.

The roof from over the west side of the garage had been inverted and was laying on top of the debris in the garage (Photos 16-19). The portion of that roof that had been over the interior of the garage attic was remarkably burned and deeply charred. However the portion of that roof that comprised the soffit over the west exterior of the house was relatively unburned and remarkably preserved. According to Mick Jadlowski CFI, Certified Fire Investigator, this was a clear indicator that the fire could not possibly have originated on the exterior of that west wall where the electrical service SES (Service Entrance Section) panel and the NV Energy meter were mounted. Photos 18-19 show the measurements of the riser where the meter was and the same measurement on the underside of the west garage soffit. That remaining section of roof was moved out to the front driveway where Photos 20-21 show the lack of damage to the underside of the soffit bay from directly over the electrical service and meter. Photo 22 shows the undamaged soffit from below at the southeast corner of the house to show that this surface was uncovered where it was directly over the electric meter and would have been much more damaged if that were the origin.

A number of appliances, extension cords, and receptacles had reportedly been in use within the garage at the time of the fire. Photo 23 shows a badly damaged refrigerator that had been in use. Photos 24 and 25 show power cords and a heater thermostat that was set on high. According to the homeowner, there was a Milwaukee battery charger and a

small air compressor plugged in as well as an extension cord that extended through a vent at the bottom of the west garage wall at the south end to Christmas lights. That vent as described by the insured was at the base of the wall where the greatest damages were. He indicated that he had just pushed the extension cord through the vent hole alongside the metal grate that was supposed to cover the vent and keep pests out.

EVIDENCE EXAM AT FIRE DEPARTMENT

The group then traveled to the Fire Department where an examination was conducted of the SES panel and an associated sub panel that had been removed previously removed by the Sparks Fire Department.

The main SES panel was a combination circuit breaker and metering panel (Photos 26-30). The panel was an older model consistent with about a 150 amp rating at 120/240 volts. The circuit breakers were still in relatively good condition with only external melting of the handles that prevent knowing the status or ratings (Photo 29). The meter stabs showed indications of melting and there was also melting of the steel lip at the meter socket, which is typical when a fire attacks an energized meter (Photo 30).

Mounted on the opposite side of the same section of wall was a sub panel with 14 circuit breakers (Photos 31-33). This panel was consistent with a 100 amp MLO (main lug only) rated at 120/240 volts. All circuit breakers except one appeared to be in the tripped position indicative of these circuits likely being energized when the fire attacked this panel that was mounted on the interior of the garage wall.

Also notable was an arc hole blown through the front of the sub panel, which was mounted on the interior wall of the garage (Photos 32-33). This clearly shows that this panel was energized when the fire attacked it on the interior of the garage, which will be discussed further in the Analysis section below.

(F) ANALYSIS:

There were a number of appliances in use in the garage that could not be eliminated as a likely cause of this fire. The refrigerator was badly damaged and was not tested or examined. There was a Milwaukee battery charger for cordless power tools plugged in and charging. These chargers and batteries are a common cause of fire and similar products have been recalled by the CPSC (Consumer Product Safety Commission). This Forensic Electrical Engineer has documented numerous fires from refrigerator and rechargeable battery failures. The extension cord that the insured had extended through the vent alongside the sheet metal vent cover for Christmas lighting cannot be eliminated as a likely cause of this fire. The lowest burn and greatest damage to that west garage wall are at the location of that vent.

The damages to the metering panel and meter are typical of external fire attack while the meter is still energized. These service laterals are fed by a transformer that typically serves up to 8 houses, therefore they are capable of providing a large current such that when the fire melts through the plastic meter cover there will be significant electrical activity within the meter before the service lateral is severed or the transformer fuse (if equipped) blows. There is no evidence of any failure of the meter or service lateral.

The fact that there was arcing on the surface of the sub panel that was mounted on the interior wall of the garage positively proves that it is not physically possible for this fire to have originated at the exterior where the service meter was located. The tripped circuit breakers in that panel further prove that it was physically impossible for the fire to originate at the service meter as those tripped breakers are indicative of fire attack on the home runs in the attic above the garage. These facts are proven using arc mapping.

NFPA 921 Guide For Fire and Explosion Investigations states: [1]

"***17.4.5 Arc Surveys or Arc Mapping.*** *Arc surveys (also known as arc mapping) is a technique in which the investigator uses the identification of arc locations or "sites" to aid in determining the area of fire origin. This technique is based on the predictable behavior of energized electrical circuits exposed to a spreading fire. The spatial relationship of the arc sites to the structure and to each other can be a pattern, which can be used in an analysis of the sequence in which the affected parts of the electrical system were compromised. This sequential data can be used in combination with other data to more clearly define the area of origin."*

[1] From NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition. Article 17.4.5.

The relatively less burned physical condition of the soffit over the electrical service metering panel also positively proves that this fire could not have originated at the meter. It is also very unlikely that the insured would find fire inside the garage before the entire attic is involved if the fire originated on the exterior at the service panel.

(G) CONCLUSION:

It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the NV Energy meter and service wiring are positively eliminated as a possible cause of this fire. Furthermore, the fire could not have possibly originated at the vicinity of the electrical service meter or any other equipment under the control of NV Energy.

These conclusions were reached with reasonable scientific certainty based on:

1. The Origin and Cause investigation by Mick Jadlowski CFI
2. Forensic Examinations of the scene and evidence at the scene.
3. Examinations of the evidence artifacts at the fire department facility.
4. The undersigned investigator's education, training, and experience as a Journeyman Electrician and Registered Professional Electrical Engineer.

(H) COMMENTS:

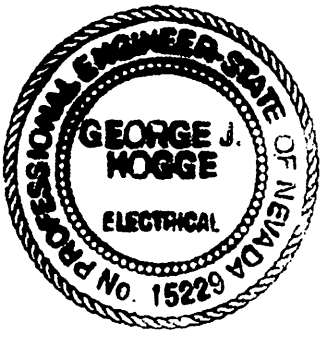
The statements and conclusions contained herein are based on the information given to and gathered by Engineering Forensics Experts at the time of this report. If additional information becomes available we reserve the right to change our conclusions.

Thank you for the opportunity to be of service.

George J Hogge P.E. 7/3/13

SIGNATURE DATE

George J. Hogge PE
Principle Forensic Engineer



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ENGINEERING EXAMINATION and ANALYSIS REPORT #1

File No: 3719-0111

Prepared for:
NV Energy
6226 W. Sahara Avenue, MS #3A
Las Vegas, NV 89146
Attn: Brandon M. Barkhuff, Assistant General Counsel

Claimant:	Macias, Sarah
Date of Occurrence:	12/30/12
Location of Occurrence:	200 E. Lincoln Way, Sparks, NV

Dates of Examinations:
1. Scene and Evidence Examinations: 1/11/13

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(A) SUMMARY:
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The investigation activities and reporting have been conducted in accordance with the following standards among others:

- NFPA 921-2011 Edition "Guide for Fire and Explosion Investigations"
- ASTM E620–04 "Standard Practice for Reporting Opinions of Scientific or Technical Experts"
- ASTM E678–07 "Standard Practice for Evaluation of Scientific or Technical Data"
- ASTM E860–07 "Standard Practice for Examining And Preparing Items That Are Or May Become Involved In Criminal or Civil Litigation"
- ASTM E1020–96 (Reapproved 2006) "Standard Practice for Reporting Incidents that May Involve Criminal or Civil Litigation"
- ASTM E1188–05 "Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator"
- ASTM E2332–04 "Standard Practice for Investigation and Analysis of Physical Component Failures"

As defined in the NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition, the proper methodology for the investigation and analysis of any fire cause is to utilize the Scientific Method:

3.3.144 Scientific Method. *The systematic pursuit of knowledge involving the recognition and formulation of a problem, the collection of data through observation and experiment, and the formulation and testing of a hypothesis.*

The following flow chart is shown in NFPA 921 to illustrate the basic premise of the scientific method to develop and test hypotheses to determine the cause of a fire:

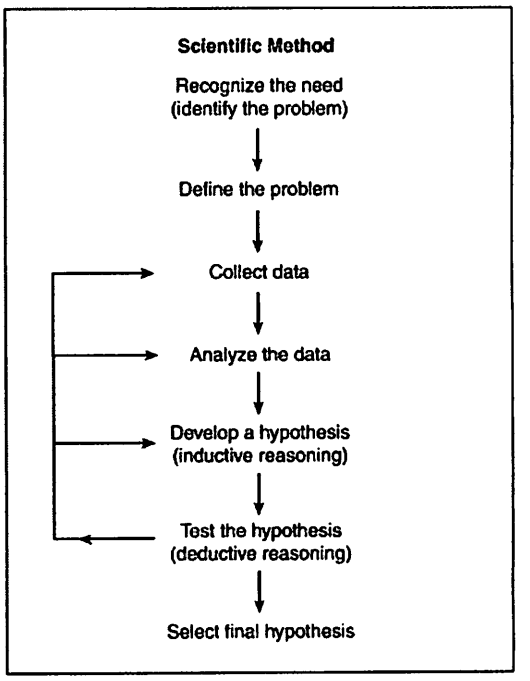


FIGURE 4.3 Use of the Scientific Method.

(A) SUMMARY:

It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the NV Energy meter and service wiring are positively eliminated as a possible cause of this fire. Furthermore, the fire could not have possibly originated at the vicinity of the electrical service meter or any other equipment under the control of NV Energy.

There were a number of appliances in use in the garage that could not be eliminated as a likely cause of this fire. The refrigerator was badly damaged and was not tested or examined. There was a Milwaukee battery charger for cordless power tools plugged in and charging. The extension cord that the insured had extended through the vent alongside the sheet metal vent cover for Christmas lighting cannot be eliminated as a likely cause of this fire. The lowest burn and greatest damage to that west garage wall are at the location of that vent.

The damages to the metering panel and meter are typical of external fire attack while the meter is still energized. These service laterals are fed by a transformer that typically serves up to 8 houses, therefore they are capable of providing a large current such that when the fire melts through the plastic meter cover there will be significant electrical activity within the meter before the service lateral is severed or the transformer fuse (if equipped) blows. There is no evidence of any failure of the meter or service lateral.

The fact that there was arcing on the surface of the sub panel that was mounted on the interior wall of the garage positively proves that it is not physically possible for this fire to have originated at the exterior where the service meter was located. The tripped circuit breakers in that panel further prove that it was physically impossible for the fire to originate at the service meter as those tripped breakers are indicative of fire attack on the home runs in the attic above the garage. These facts are proven using arc mapping.

The relatively less burned physical condition of the soffit over the electrical service metering panel also positively proves that this fire could not have originated at the meter.

There is also a considerable issue with evidence spoliation due to the removal of the service equipment and the cutting of all of the associated conductors without any effort to mark or preserve them for tracing and analysis

(B) ENCLOSURES:

1. 33 color images of evidence examination (from digital photographs) with descriptions.

2. Itemized invoice for Forensic Engineering services to date.

(C) INSTRUCTIONS:

Original instructions were received from Mick Jadlowski CFI representing NV Energy for George J. Hogge PE, Principal Electrical Engineer to travel to Sparks Nevada and conduct an Engineering Examination of the scene and artifacts retained to confirm or negate any electrical or mechanical failure as the cause of a fire.

Further instructions were received from Brandon M. Barkhuff, Assistant General Counsel of NV Energy to provide a written Engineering Report.

(D) BACKGROUND:

An Origin and Cause investigation was conducted by Mick Jadlowski CFI, Certified Fire Investigator of Rimkus Consulting. Mick Jadlowski CFI found that the origin of the fire was on the interior of the garage area.

The insured indicated that at about 2:30 am the kids were playing on the WII and heard some popping noises coming from the inside of the garage. He stated that he opened the door between the house and garage and saw fire inside the garage. He stated that items plugged in within the garage included a refrigerator, compressor, Milwaukee cordless tool battery charger, and an extension cord for Christmas lighting that will be discussed below.

(E) SCENE AND EVIDENCE EXAMINATIONS:

An Electrical Engineering Examination was conducted at the scene and later at the Sparks Fire Department building on January 11, 2013. Present were George J. Hogge PE and Mick Jadlowski CFI. A number of photographs were taken during those examinations in digital format. Selected photos are attached below.

The house was a 1 story residential structure constructed with wood framing and wood siding supported by a concrete slab on grade (Photo 1). The sloped roof was supported with wood trusses and finished with asphalt shingles. The damages were most severe at the west wall of the garage which was at the southwest corner of the house.

The electrical service to the home had been mounted to the exterior of the west garage wall about 5 feet from the southwest corner of the house (Photos 2-4). The only portion of the electrical service that remained when we arrived was the steel riser conduit and portions of the aluminum service lateral (Photos 5-6). Portions of the service lateral and some of the branch circuit romex conductors had been cut and wrapped around the steel riser conduit with no effort made to mark them or preserve the original post fire condition.

The electrical branch circuit wiring within the home was installed using copper Type NM Non Metallic Sheathed Cables, which are intended for and suitable for such use in a residential structure. For purposes of this report, the Type NM cables will be referred to by the trade jargon of "romex". A typical romex cable will have an outer thermoplastic

sheath surrounding a specific number of insulated "current carrying" conductors as well as one (1) non-insulated conductor that is intended to be used as a ground conductor only. The number of insulated conductors is typically stated in the sizing convention, for example 14/2 romex will have two (2) insulated #14 AWG conductors and a non-insulated ground. The first run of romex that extends from the circuit breaker panel into the structure is typically referred to as the "home run" until it reaches the first device or load.

One of the branch circuits including a duplex receptacle had been wrapped around the steel riser with no indication of where it had been in the wall or if anything had been plugged into that receptacle (Photo 7).

The home runs that penetrated into the attic were still found extending through the penetrations at the top header plate of that west garage wall (Photos 8-11). Those conductors had previously been cut near the circuit breaker panels without any attempt to mark them for future tracing or examination (Photo 11). The continuations of those home runs through the attic were mostly severed over the garage area and the remaining portions had been wadded up and moved about carelessly (Photos 12). No documentation was provided for where they had been after the fire suppression.

A number of melted areas of copper conductor were found on those conductors from the attic over the garage (Photos 12-15). Most of those home runs from the garage attic were missing and could not be examined properly. Some of the melted areas had damages consistent with arcing, indicative that those home runs were still energized when the fire reached them within the attic over the garage. The home runs were all severed at the north garage wall where they extended into the attic space over the living area.

The roof from over the west side of the garage had been inverted and was laying on top of the debris in the garage (Photos 16-19). The portion of that roof that had been over the interior of the garage attic was remarkably burned and deeply charred. However the portion of that roof that comprised the soffit over the west exterior of the house was relatively unburned and remarkably preserved. According to Mick Jadlowski CFI, Certified Fire Investigator, this was a clear indicator that the fire could not possibly have originated on the exterior of that west wall where the electrical service SES (Service Entrance Section) panel and the NV Energy meter were mounted. Photos 18-19 show the measurements of the riser where the meter was and the same measurement on the underside of the west garage soffit. That remaining section of roof was moved out to the front driveway where Photos 20-21 show the lack of damage to the underside of the soffit bay from directly over the electrical service and meter. Photo 22 shows the undamaged soffit from below at the southeast corner of the house to show that this surface was uncovered where it was directly over the electric meter and would have been much more damaged if that were the origin.

A number of appliances, extension cords, and receptacles had reportedly been in use within the garage at the time of the fire. Photo 23 shows a badly damaged refrigerator that had been in use. Photos 24 and 25 show power cords and a heater thermostat that was set on high. According to the homeowner, there was a Milwaukee battery charger and a

small air compressor plugged in as well as an extension cord that extended through a vent at the bottom of the west garage wall at the south end to Christmas lights. That vent as described by the insured was at the base of the wall where the greatest damages were. He indicated that he had just pushed the extension cord through the vent hole alongside the metal grate that was supposed to cover the vent and keep pests out.

EVIDENCE EXAM AT FIRE DEPARTMENT

The group then traveled to the Fire Department where an examination was conducted of the SES panel and an associated sub panel that had been removed previously removed by the Sparks Fire Department.

The main SES panel was a combination circuit breaker and metering panel (Photos 26-30). The panel was an older model consistent with about a 150 amp rating at 120/240 volts. The circuit breakers were still in relatively good condition with only external melting of the handles that prevent knowing the status or ratings (Photo 29). The meter stabs showed indications of melting and there was also melting of the steel lip at the meter socket, which is typical when a fire attacks an energized meter (Photo 30).

Mounted on the opposite side of the same section of wall was a sub panel with 14 circuit breakers (Photos 31-33). This panel was consistent with a 100 amp MLO (main lug only) rated at 120/240 volts. All circuit breakers except one appeared to be in the tripped position indicative of these circuits likely being energized when the fire attacked this panel that was mounted on the interior of the garage wall.

Also notable was an arc hole blown through the front of the sub panel, which was mounted on the interior wall of the garage (Photos 32-33). This clearly shows that this panel was energized when the fire attacked it on the interior of the garage, which will be discussed further in the Analysis section below.

(F) ANALYSIS:

There were a number of appliances in use in the garage that could not be eliminated as a likely cause of this fire. The refrigerator was badly damaged and was not tested or examined. There was a Milwaukee battery charger for cordless power tools plugged in and charging. These chargers and batteries are a common cause of fire and similar products have been recalled by the CPSC (Consumer Product Safety Commission). This Forensic Electrical Engineer has documented numerous fires from refrigerator and rechargeable battery failures. The extension cord that the insured had extended through the vent alongside the sheet metal vent cover for Christmas lighting cannot be eliminated as a likely cause of this fire. The lowest burn and greatest damage to that west garage wall are at the location of that vent.

The damages to the metering panel and meter are typical of external fire attack while the meter is still energized. These service laterals are fed by a transformer that typically serves up to 8 houses, therefore they are capable of providing a large current such that when the fire melts through the plastic meter cover there will be significant electrical activity within the meter before the service lateral is severed or the transformer fuse (if equipped) blows. There is no evidence of any failure of the meter or service lateral.

The fact that there was arcing on the surface of the sub panel that was mounted on the interior wall of the garage positively proves that it is not physically possible for this fire to have originated at the exterior where the service meter was located. The tripped circuit breakers in that panel further prove that it was physically impossible for the fire to originate at the service meter as those tripped breakers are indicative of fire attack on the home runs in the attic above the garage. These facts are proven using arc mapping.

NFPA 921 Guide For Fire and Explosion Investigations states: [1]

"***17.4.5 Arc Surveys or Arc Mapping.*** *Arc surveys (also known as arc mapping) is a technique in which the investigator uses the identification of arc locations or "sites" to aid in determining the area of fire origin. This technique is based on the predictable behavior of energized electrical circuits exposed to a spreading fire. The spatial relationship of the arc sites to the structure and to each other can be a pattern, which can be used in an analysis of the sequence in which the affected parts of the electrical system were compromised. This sequential data can be used in combination with other data to more clearly define the area of origin."*

[1] From NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition. Article 17.4.5.

The relatively less burned physical condition of the soffit over the electrical service metering panel also positively proves that this fire could not have originated at the meter. It is also very unlikely that the insured would find fire inside the garage before the entire attic is involved if the fire originated on the exterior at the service panel.

(G) CONCLUSION:

It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the NV Energy meter and service wiring are positively eliminated as a possible cause of this fire. Furthermore, the fire could not have possibly originated at the vicinity of the electrical service meter or any other equipment under the control of NV Energy.

These conclusions were reached with reasonable scientific certainty based on:

1. The Origin and Cause investigation by Mick Jadlowski CFI
2. Forensic Examinations of the scene and evidence at the scene.
3. Examinations of the evidence artifacts at the fire department facility.
4. The undersigned investigator's education, training, and experience as a Journeyman Electrician and Registered Professional Electrical Engineer.

(H) COMMENTS:

The statements and conclusions contained herein are based on the information given to and gathered by Engineering Forensics Experts at the time of this report. If additional information becomes available we reserve the right to change our conclusions.

Thank you for the opportunity to be of service.

George J Hogge P.E. 7/3/13

SIGNATURE DATE

George J. Hogge PE
Principle Forensic Engineer

EXAMINATION PHOTOGRAPHS

1. Front view of house looking northwest.

2. Looking northwest through garage to where electric meter was. Red arrow added to show riser.

3. Looking south from outside towards service riser.

4. Looking southwest from inside garage towards service riser.

5. Service and branch circuit conductors wrapped around at top of riser.

6. Service lateral conductors cut at top of riser.

7. Duplex receptacle strap mixed in with conductors wrapped around riser.

8. Remains of branch circuit home runs penetrating top plate above location of circuit breaker panels.

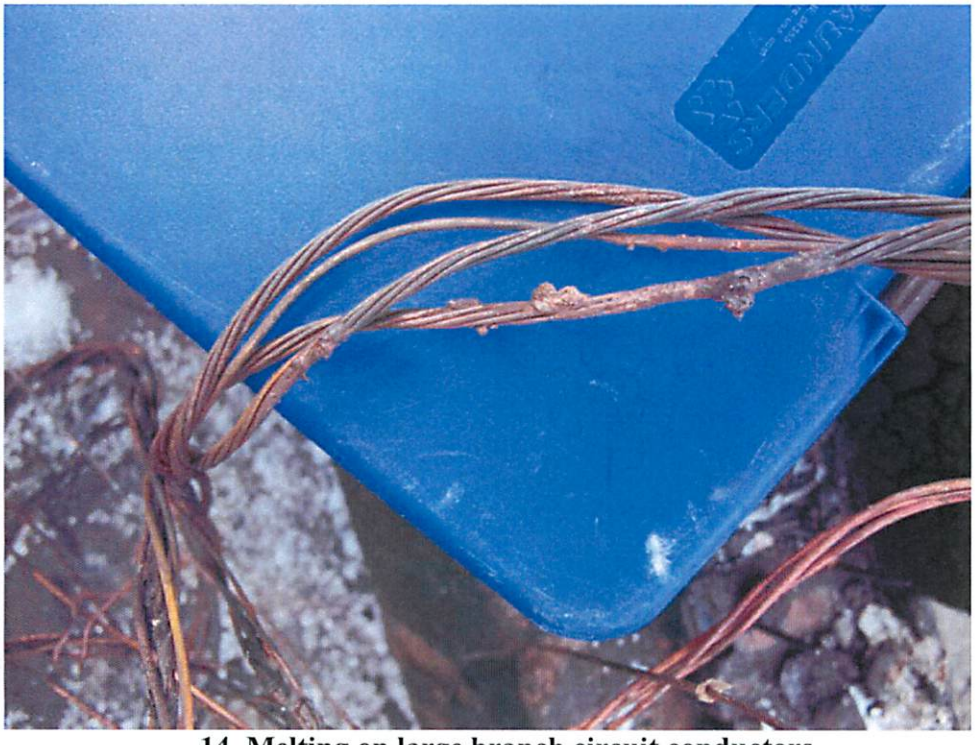
9. Closer view of bottom of top plate with home run penetrations.

10. Closer view of top side of top plate with home run penetrations

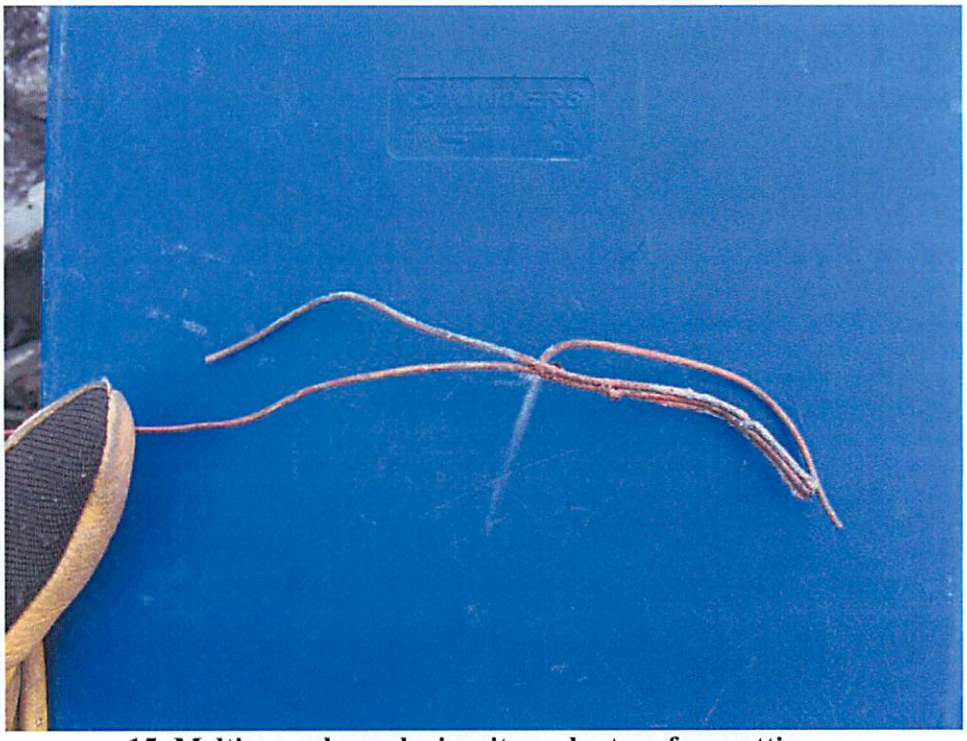
11. Home run circuit conductors cut near breaker panels with no marking.

12. Loose branch circuit conductors along west garage wall.

13. Melting on large branch circuit conductors.



14. Melting on large branch circuit conductors.



15. Melting on branch circuit conductors from attic space.

16. View of garage area looking northeast showing west garage roof inverted.

17. Bottom side of west garage roof where electrical service and meter had been located under.

18. Measuring the service riser at 5 feet from south wall of garage.

19. Showing 5 feet from south wall on underside of eave soffit from west garage roof.

20. West garage roof moved to driveway. Blue clipboard shows bay that was over the service meter.

21. Closer view of soffit bay from over service meter.

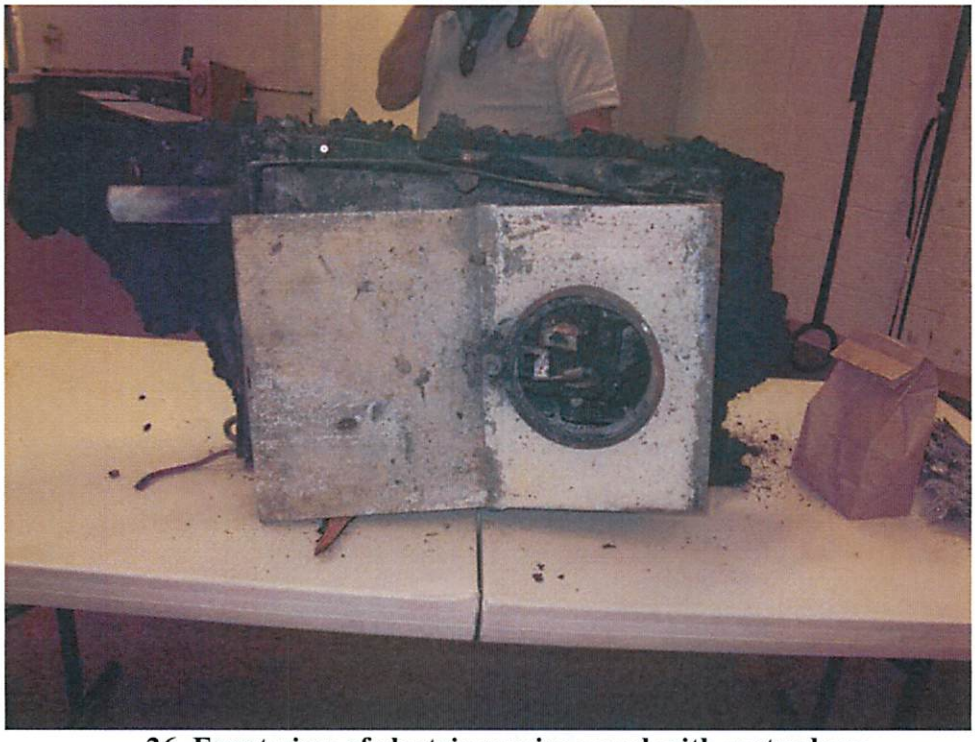
22. Photo of undamaged soffit at SEC of house.

23. Refrigerator that was in use in garage at time of fire.

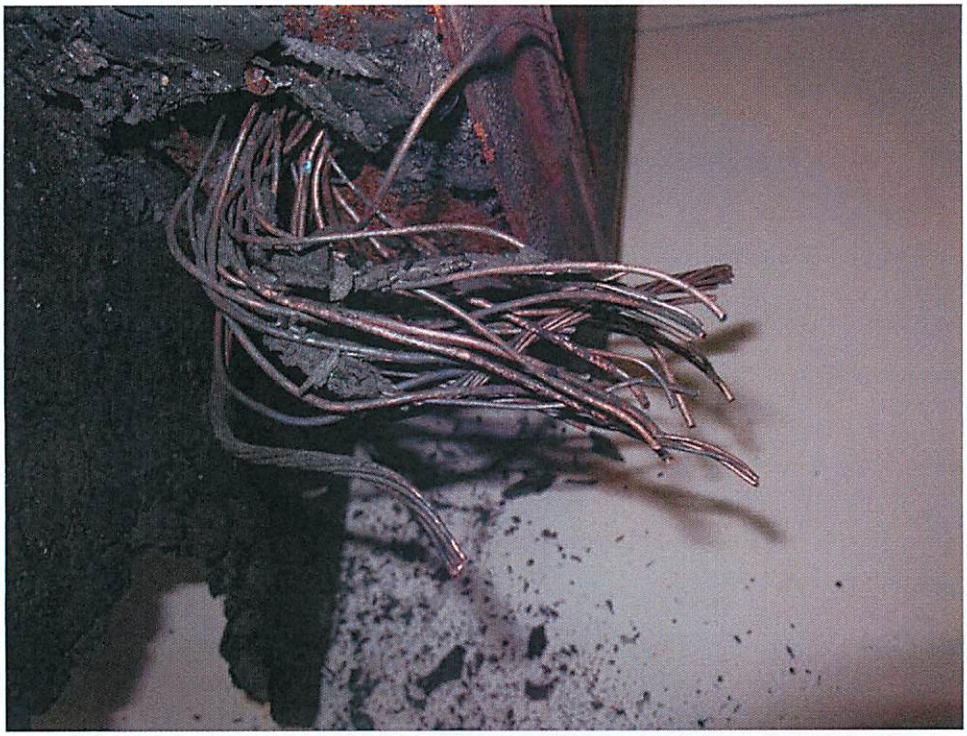
24. Remains of appliances including space heater in garage.

25. Thermostat and conductors from space heater.

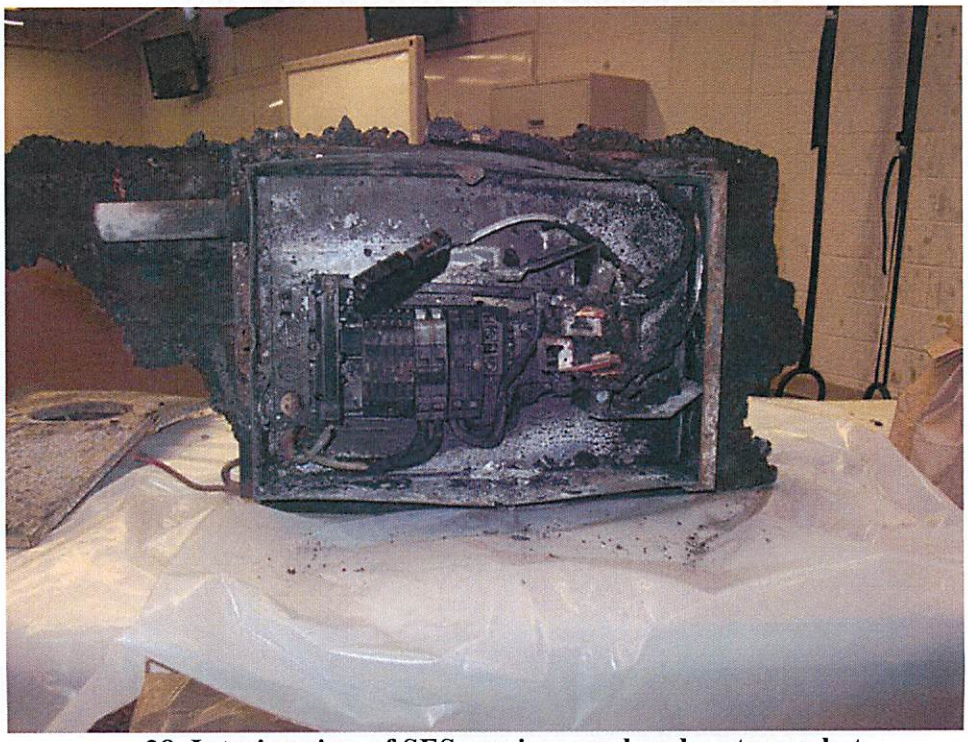
EVIDENCE EXAM AT FIRE DEPARTMENT



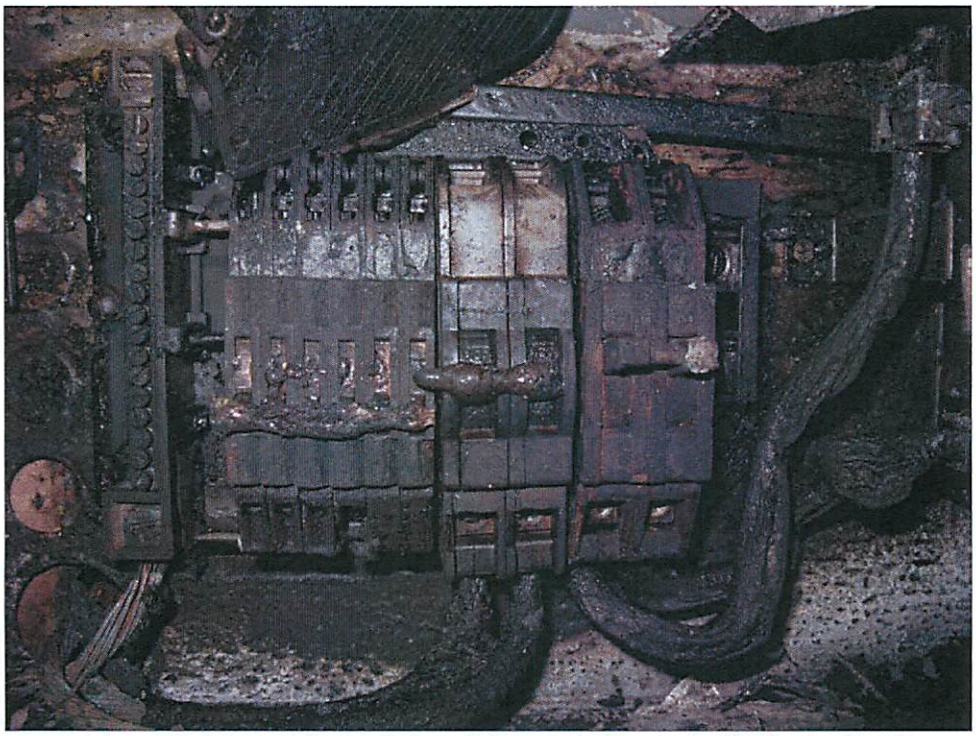
26. Front view of electric service panel with meter loop.



27. Home runs cut at base of panel with no marking on conductors.



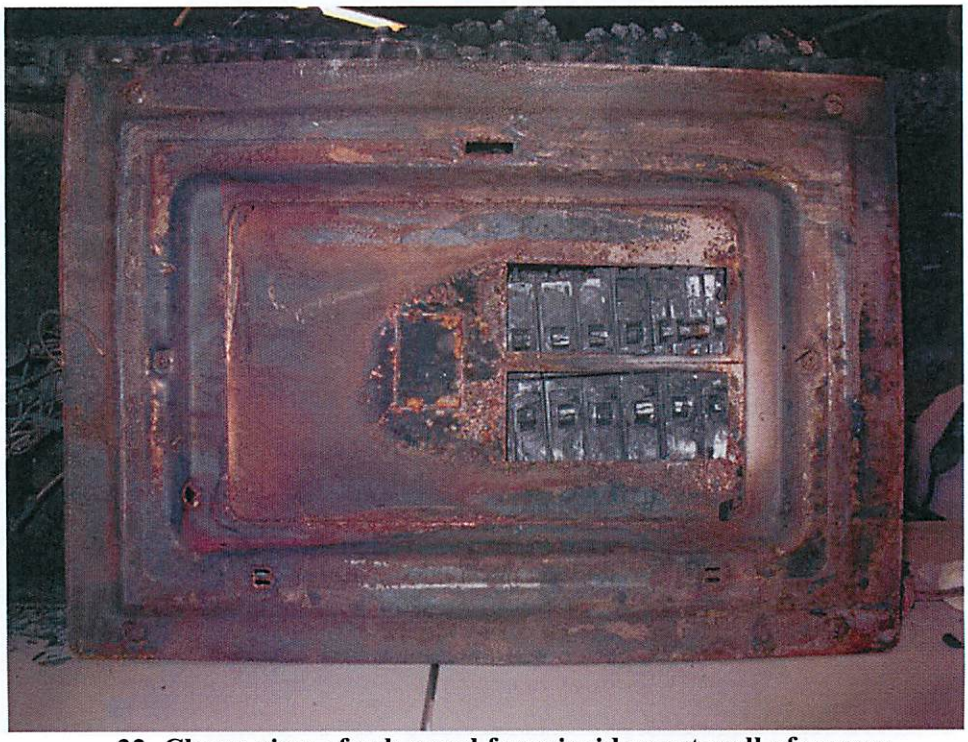
28. Interior view of SES service panel and meter socket.



29. Closer view of circuit breakers in main SES panel.

30. Closer view of remains of meter socket.

31. Front view of sub panel that was mounted inside garage opposite SES on west wall.



32. Closer view of sub panel from inside west wall of garage.

33. Arcing through front cover of sub panel from inside west garage wall.

ATTACHMENT H

7255 Windswept Loop, Sparks
January 11, 2013 Incident

H.1 Sparks Fire Department Report

H.2 NV Energy Documents

ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

ATTACHMENT H.1

7255 Windswept Loop, Sparks
January 11, 2013 Incident

Sparks Fire Department Report

Peter Mulvihill

From: King, Bob <bking@cityofsparks.us>
Sent: Wednesday, October 29, 2014 9:36 AM
To: Peter Mulvihill
Cc: Garrison, Tom; Thornley, Doug
Subject: Sparks Fire Department Fire Investigation Files
Attachments: 6 E. H Street.pdf; 200 E. Lincoln Way.pdf; 1521 G ST.pdf; 4742 El Cap Ct..pdf; 7255 Windswept Loop.pdf

Chief Mulvihill,

Here are the redacted fire investigation files. The only items redacted were names, phone numbers, and SSAN's. Please discard the previous files and replace with these.

Thanks again for your patience with us during this process.

Don't hesitate to call me if you have any questions.

Sincerely,

Bob King, EFO
DC/Fire Marshal
1605 Victorian Ave.
Sparks, NV 89431
O- 353-2261
C – 527-3712
F – 353-2396

From: Feldman, Rick
Sent: Wednesday, October 29, 2014 9:27 AM
To: King, Bob
Subject: smart meter

SPARKS FIRE DEPARTMENT
FIRE INVESTIGATION REPORT

7255 Windswept Loop
1304099
6/11/2013

Notification & Fire Synopsis:

I was dispatched by Assistant Fire Marshal McCubbins at 09:38 a.m. to 7255 Windswept Loop to investigate a structure fire at a single family residence. I arrived on scene at 09:58 a.m. I reported to Battalion Chief Hagen on scene. The structure was unoccupied at the time of the fire. Suppression crews were checking for extension in the attic. The fire was discovered and reported by neighbors at 09:38 a.m. The fire was contained to the electrical smart meter panel on the exterior of the structure. The weather was not a factor in this fire.

Structure / Vehicle Information:

The structure involved is a 1440 square foot single family residence. The structure is of ordinary wood construction with stucco siding and eves. The structure was built and completed by Meritage Homes of Nevada in September 2012. The original electrical meter was installed 6/15/2012. The garage is attached to the front right side of the structure and is separated by 5/8 inch drywall on the interior. The area involved is the smart meter and electrical panel on the eastern exterior garage wall. The electrical panel is framed into the wall and accessed from the exterior of the garage. The smart meter is a Sensus icon type isa3 and is owned by NV Energy. The electrical panel and all the components on the load side are owned by the home owners. The homeowners insurance is [redacted]. The estimated damage is 1500.00 dollars.

Interviews:

Captain Parks was on Engine 51, the first in Engine Company. Captain Parks reported they arrived on scene at 09:44 a.m. and witnessed sparks emitting from the smart meter panel. He completed his scene size up of the structure and found no fire other than from the smart meter panel. Captain Parks stated the residence was unoccupied and they forced entry into the structure through the garage door. Captain Parks stated the smart meter panel was still energized and that NV Energy was contacted to disconnect the power to the smart meter panel. (Refer to fire report).

Brian Vallancourt a NV Energy Trouble Tec arrived about 10:15 a.m. and reported that the smart meter was destroyed and he disconnected the electrical service at the Christy box in the driveway. Mr. Vallancourt stated that NV Energy Safety and Claims personnel were in route to the scene. I asked Mr. Vallancourt if he had seen many of the smart meters exploding like this. He stated he has and it is a big problem. He also stated he had a phone number to Opt Out of the smart meter program for the home owners. Mr. Vallancourt stated that all the NV Energy Trouble Tecs and Meter Tecs had Opted Out of the program. I asked if he could determine if the damage was on the load side of the

smart meter or the service side. He stated it was on the service side and that was the cause of the arcing and damage.

James Rawlins a NV Energy Safetyman arrived about 10:20 a.m. and stated that NV Energy was not able to determine what is causing the smart meters to explode and he wanted to examine the remains of the meter. I asked Mr. Rawlins if he could determine if the smart meter was the cause of the fire arching. He stated it was obvious it had started at the smart meter locations but could not determine why it failed.

Mario Pieracci a NV Energy Claims person stated that NV energy was contacting Briggs Electrical who is their sub contractor to install smart meters and have them replace the meter and panel for the home owners. He also stated they would pay for the replacement work. Mr. Pieracci stated he was in contact with NV Energy's Administrative department and asked to take the smart meter remains since they owned the meter. I notified Mr. Pieracci that the smart meter remains were evidence for the investigation and would be logged in at the Sparks Police Department for investigation hold. Mr. Pieracci asked under what authority we have to keep their property. I responded under Fire Department investigation police powers and referred to Assistant Fire Marshal Chris McCubbins who was present.

Rob Cobb with Briggs Electrical arrived on scene and stated he has been replacing about two smart meters a month that have failed and caused damage to the residential or commercial buildings. Mr. Cobb stated that NV Energy collects all the damaged smart meters and has not admitted to the problems with them. Mr. Cobb stated he knows of smart meters exploding while being installed by technicians. Mr. Cobb stated the Sensus smart meter that NV Energy has installed in Nevada has more problems that the one installed by PG&E in California. Mr. Cobb stated that the problem with the Sensus Smart Meter is the relays fail and overheat causing arching and heat damage that results in fires and electrical damage to the structure and appliances. (See DVD recording).

[redacted] who is the home owner stated she was the last person to leave the house at 7:45 a.m. that morning. [redacted] stated there were no unusual sights, smells, or sounds prior to leaving. [redacted] state the house was less than a year old and that they had no electrical work done on the house. (See Witness Statement).

Scene Investigation:

I started my investigation by interviewing the fire crew, the NV Energy personnel, the Briggs Electrician and the home owner. I inspected the electrical panel on the east side garage wall and confirmed the smart meter panel to be the area of origin. I photographed the electrical panel, the garage interior and the exterior stucco wall of the garage. The fires point of origin started at the smart meter side of the panel and the fire damage continued in a v pattern up to the stucco eves of the house. Blue and black soot extended from the panel to the stucco wall of the garage. The smart meter panel had a two inch hole about seven inches below the mounting socket for the meter. The smart meter ring was intact and had melted plastics and metals attached to it. The load side meter blades were still in place in the electrical panel. The service side blades were missing. The load side panel main breaker access was present with moderate heat damage. The panel doors were removed by Brian Vallancourt the NV Energy troubleman and placed on the ground below the panel. The service side of the panel had heavy heat damage to the mounting

area of the smart meter. I inspected the smart meter remains and the service side of the smart meter panel. The smart meter had melted and fallen off the panel onto the ground below. The remains were charred and stuck together from heat fussing of the plastic and metal components of the meter. The remains of the smart meter were collected into a steel evidence can and sealed with the steel lid and tape. The outer panel doors were collected and placed into a plastic garbage bag. The service side wire lugs were removed by the Rob Cobb the Briggs Electrician and I collected them as evidence. The load side of the panel had light to moderate heat damage and all the breakers were intact. The only breaker that was tripped was the garage GFCI. I inspected the electrical wires on the load side of the panel and found no signs of arching. No other fire sources were found. The electrical panel was removed by Rob Cobb and replaced with a new panel and all the wiring and breakers were reconnected to the residence. I collected the panel and all components and logged it into evidence at Sparks Police Department. (See evidence records and photos). My investigation included the assistance of Assistant Fire Marshal Chris McCubbins, Sparks Fire Investigator Don Parsons and Sparks Fire Inspector Major Herrick.

Opinion & Conclusion:

The area of origin for the fire is the east exterior garage wall. The point of origin is inside the electrical panel between the electrical service side of the smart meter and the load side of the panel. The cause is the electrical components of the smart meter or panel connection failing and arching resulting in a fire or explosion of the smart meter and panel.

Reporting Investigator:

Chris Van Ness
Sparks Fire Investigator

WITNESS STATEMENT
FIELD NOTES 906-6

AGENCY	FILE NUMBER
SFD	1304099

IDENTIFICATION

NAME [redacted]			ADDRESS 7255 Windswept Loop		PHONE NO. [redacted]
RACE [redacted]	SEX [redacted]	AGE [redacted]	DATE OF BIRTH [redacted]	SOC. SECURITY NO. [redacted] Sparks, NV. 8943[illegible]	DRIVER'S LIC. NO.
EMPLOYER Northern Nevada Medical Group			ADDRESS 5975 S. Los Altos Pkwy Ste. 100 Sparks NV.		PHONE NO. [redacted]
RELATIONSHIP TO INCIDENT Home owner / occupier			CAN BE CONTACTED AT [redacted] 89436		[redacted] Sparks
STATEMENT TAKEN BY [illegible] 1155 / Major Herrick			LOCATION, DATE & TIME OF STATEMENT 7255 windswept Lp., 6/11/13, 12p Sparks 89436		

STATEMENT

I [redacted] was the last person out of the house this morning at 7:45 am, when I left to work. There were no unusual sights, smells, or sounds prior to exiting and leaving the house.

I entered work by 8:15 am, had a routine morning until around 11 am I recieved a phone call from our neighbor Mrs. Leslie Rumble (7240 windswept Loop) who is also a patient at the clinic I work called to inform me that Sparks FD was at my home. I then panicked and was driven to my home by my coworker Isabel Adame. Upon arrival I saw the SFD, also SPD I was then informed that there had been a possible electrical box fire, which the damage surrounded. and that there was slight possible smoke/fire damage to the attic/closet. I have had no type of electrical work done in or on the house, I have not noticed any issue or problems with the home before today.

6/11/13 [redacted]

Incident Report

Sparks Fire Dr tment

2013-1304099 -000

Basic	
Alarm Date and Time	09:38:18 Tuesday, June 11, 2013
Arrival Time	09:44:04
Controlled Date and Time	
Last Unit Cleared Date and Time	13:58:35 Tuesday, June 11, 2013
Response Time	0:05:46
Priority Response	Yes
Completed	Yes
Fire Department Station	S5
Shift	B
Incident Type	111 - Building fire
Aid Given or Received	2 - Automatic aid received
Mutual Aid Department	TMFPD-Truckee Meadows Fire Protection District
Action Taken 1	12 - Salvage & overhaul
Action Taken 2	86 - Investigate
Casualties	No
Apparatus - Suppression	12
Personnel - Suppression Personnel	21
Property Loss	$1,500.00
Contents Loss	$0.00
Property Value	$1,500.00
Contents Value	$0.00
Detector Alerted occupants	2
Property Use	419 - 1 or 2 family dwelling
Location Type	Address
Address	7255 WINDSWEPT LP
City, State Zip	SPARKS, NV 89436
District	89
Directions	7255 WINDSWEPT LP

Person Involved/Property Owner - [redacted]	
Owner	Yes
Last Name	[redacted]
First Name	[redacted]
Business Name	Wife, owner
Street Address	7255 WINDSWEPT LP
City, State Zip	SPARKS, NV 89436

Person Involved/Property Owner - [redacted]	
Owner	Yes
Last Name	[redacted]
First Name	[redacted]
Name Suffix	[redacted]
Business Name	Owner Husband
Street Address	7255 WINDSWEPT LP
City, State Zip	SPARKS, NV 89436
Phone	7757708562

Person Involved - [redacted], Unknown

Person Involved - [redacted], Unknown	
Last Name	[redacted]
First Name	Unknown
Street Address	
Phone	7755303101

Person Involved - [redacted]	
Involvement Code	EMP
Last Name	[redacted]
First Name	[redacted]
Business Name	NV Energy Claims dept
Street Address	7255 WINDSWEPT LP
City, State Zip	SPARKS, NV 89436
Phone	7758343989

Person Involved - Rawlins, James	
Involvement Code	EMP
Last Name	Rawlins
First Name	James
Business Name	NV Energy Safety
Street Address	7255 WINDSWEPT LP
City, State Zip	SPARKS, NV 89436

Person Involved - Vaillancourt, Brian	
Involvement Code	EMP
Last Name	Vaillancourt
First Name	Brian
Business Name	NV Energy Troubleman Tec
Street Address	7255 WINDSWEPT LP
City, State Zip	SPARKS, NV 89436

Fire	
Structure Type	1 - Enclosed building
Number of Residential	1
Area of Origin	76 - Wall surface: exterior
Heat Source	13 - Arcing
Item First Ignited	00 - Item, Other
Type of Material	00 - Type of material, other
Cause of Ignition	5 - Cause under investigation
Contribution To Ignition 1	34 - Unspecified short-circuit arc
Equipment Type	213 - Electric meter, meter box
Equipment Power	11 - Electrical line voltage (>= 50 volts)
Equipment Portability	2 - Stationary

Structure	
Status	2 - In normal use
Floor of Origin	1
Stories Above Grade	1
Total Square Feet	1500

Structure	
Fire Spread	2 - Confined to room of origin
No Flame Spread	1
Detector Presence	1
Detector Type	1 - Smoke
Detector Power	4 - Hardwire with battery
Detector Operation	1 - Fire too small to activate detector
AES Presence	3

Apparatus - TNG1	
Apparatus ID	TNG1
Apparatus Dispatch Date and Time	09:40:30 Tuesday, June 11, 2013
En route to scene date and time	09:43:34 Tuesday, June 11, 2013
Apparatus Clear Date and Time	10:58:49 Tuesday, June 11, 2013
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Action Taken 1	83 - Provide information to public or media
Apparatus Type	92 - Chief officer car
Personnel 1	10106 - Garrison, Thomas R
	Position: DC
	Personnel Action Taken 1: 83 - Provide information to public or media

Apparatus - E51	
Apparatus ID	E51
Response Time	0:03:45
Apparatus Dispatch Date and Time	09:38:28 Tuesday, June 11, 2013
En route to scene date and time	09:40:19 Tuesday, June 11, 2013
Apparatus Arrival Date and Time	09:44:04 Tuesday, June 11, 2013
Apparatus Clear Date and Time	11:47:36 Tuesday, June 11, 2013
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	12 - Salvage & overhaul
Apparatus Action Taken 2	84 - Refer to proper authority
Apparatus Type	11 - Engine
Personnel 1	10109 - Parks, Daniel W
	Position: CAPT
	Personnel Action Taken 1: 81 - Incident command
Personnel 2	11303 - Stewart, Jarrod A
	Position: FF
	Personnel Action Taken 1: 12 - Salvage & overhaul
Personnel 3	14071 - Scott, Matthew J
	Position: FF
	Personnel Action Taken 1: 58 - Operate apparatus or vehicle

Apparatus - TM17	
Apparatus ID	TM17
Response Time	0:05:08

Apparatus - TM17	
Apparatus Dispatch Date and Time	09:38:28 Tuesday, June 11, 2013
En route to scene date and time	09:41:11 Tuesday, June 11, 2013
Apparatus Arrival Date and Time	09:46:19 Tuesday, June 11, 2013
Apparatus Clear Date and Time	09:59:23 Tuesday, June 11, 2013
Apparatus priority response	Yes
Apparatus Use	1
Apparatus Action Taken 1	52 - Forcible entry
Apparatus Type	11 - Engine

Apparatus - L41	
Apparatus ID	L41
Response Time	0:08:21
Apparatus Dispatch Date and Time	09:38:28 Tuesday, June 11, 2013
En route to scene date and time	09:40:06 Tuesday, June 11, 2013
Apparatus Arrival Date and Time	09:48:27 Tuesday, June 11, 2013
Apparatus Clear Date and Time	10:26:14 Tuesday, June 11, 2013
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	10 - Fire, other
Apparatus Type	13 - Quint
Personnel 1	10283 - Warner, Joe
	Position: CAPT
	Personnel Action Taken 1: 73 - Provide manpower
	Personnel Action Taken 2: 86 - Investigate
Personnel 2	10253 - Armstrong, Richard J
	Position: FF
	Personnel Action Taken 1: 73 - Provide manpower
	Personnel Action Taken 2: 86 - Investigate
Personnel 3	10452 - Jackson, Darren
	Position: FAO
	Personnel Action Taken 1: 73 - Provide manpower
	Personnel Action Taken 2: 58 - Operate apparatus or vehicle

Apparatus - E21	
Apparatus ID	E21
Response Time	0:10:12
Apparatus Dispatch Date and Time	09:38:28 Tuesday, June 11, 2013
En route to scene date and time	09:40:14 Tuesday, June 11, 2013
Apparatus Arrival Date and Time	09:50:26 Tuesday, June 11, 2013
Apparatus Clear Date and Time	10:01:26 Tuesday, June 11, 2013
Apparatus priority response	Yes
Number of People	4
Apparatus Use	1
Apparatus Action Taken 1	92 - Standby
Apparatus Type	11 - Engine
Personnel 1	10379 - Glock, Matthew G
	Position: CAPT

Apparatus - E21	
Personnel 2	10687 - Ancina, Colin
	Position: FF
Personnel 3	10688 - Jakubos, Kevin N
	Position: FAO
Personnel 4	10689 - Jones, Christopher
	Position: FAO

Apparatus - BC2	
Apparatus ID	BC2
Response Time	0:11:04
Apparatus Dispatch Date and Time	09:38:27 Tuesday, June 11, 2013
En route to scene date and time	09:39:25 Tuesday, June 11, 2013
Apparatus Arrival Date and Time	09:50:29 Tuesday, June 11, 2013
Apparatus Clear Date and Time	10:39:12 Tuesday, June 11, 2013
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Action Taken 1	10 - Fire, other
Apparatus Type	92 - Chief officer car
Personnel 1	10161 - Hagen, Barry
	Position: BC
	Personnel Action Taken 1: 00 - Action taken, other

Apparatus - E31	
Apparatus ID	E31
Response Time	0:08:00
Apparatus Dispatch Date and Time	09:38:28 Tuesday, June 11, 2013
En route to scene date and time	09:43:10 Tuesday, June 11, 2013
Apparatus Arrival Date and Time	09:51:10 Tuesday, June 11, 2013
Apparatus Clear Date and Time	09:51:37 Tuesday, June 11, 2013
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	92 - Standby
Apparatus Type	11 - Engine
Personnel 1	10291 - Krompetz, Thomas J
	Position: FAO
Personnel 2	10236 - Kowatch, Thomas J
	Position: CAPT
Personnel 3	10136 - Raw, Jon
	Position: FF

Apparatus - T11	
Apparatus ID	T11
Response Time	0:17:32
Apparatus Dispatch Date and Time	09:38:28 Tuesday, June 11, 2013
En route to scene date and time	09:40:19 Tuesday, June 11, 2013
Apparatus Arrival Date and Time	09:57:51 Tuesday, June 11, 2013

Apparatus - T11	
Apparatus Clear Date and Time	10:36:03 Tuesday, June 11, 2013
Apparatus priority response	Yes
Number of People	3
Apparatus Use	1
Apparatus Action Taken 1	12 - Salvage & overhaul
Apparatus Type	12 - Truck or aerial
Personnel 1	10165 - Conely, Jake A
	Position: CAPT
	Personnel Action Taken 1: 12 - Salvage & overhaul
Personnel 2	11302 - Richards, Chad E
	Position: FAO
	Personnel Action Taken 1: 58 - Operate apparatus or vehicle
	Personnel Action Taken 2: 12 - Salvage & overhaul
Personnel 3	14609 - Gonzalez, Jason
	Position: FF
	Personnel Action Taken 1: 12 - Salvage & overhaul

Apparatus - TNG2	
Apparatus ID	TNG2
Response Time	0:19:17
Apparatus Dispatch Date and Time	09:39:16 Tuesday, June 11, 2013
En route to scene date and time	09:39:25 Tuesday, June 11, 2013
Apparatus Arrival Date and Time	09:58:42 Tuesday, June 11, 2013
Apparatus Clear Date and Time	10:58:52 Tuesday, June 11, 2013
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Action Taken 1	811 - Safety Officer
Apparatus Type	00 - Other apparatus/resource
Personnel 1	10089 - Barton, Phillip L
	Position: CAPT
	Personnel Action Taken 1: 811 - Safety Officer

Apparatus - P4	
Apparatus ID	P4
Response Time	0:16:35
Apparatus Dispatch Date and Time	09:42:17 Tuesday, June 11, 2013
En route to scene date and time	09:42:19 Tuesday, June 11, 2013
Apparatus Arrival Date and Time	09:58:54 Tuesday, June 11, 2013
Apparatus Clear Date and Time	13:58:35 Tuesday, June 11, 2013
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Action Taken 1	86 - Investigate
Apparatus Type	00 - Other apparatus/resource
Personnel 1	10549 - Van Ness, Chris C
	Position: FI2
	Personnel Action Taken 1: 86 - Investigate

Apparatus - P2	
Apparatus ID	P2
Apparatus Dispatch Date and Time	10:45:23 Tuesday, June 11, 2013
Apparatus Arrival Date and Time	11:17:46 Tuesday, June 11, 2013
Apparatus Clear Date and Time	13:58:35 Tuesday, June 11, 2013
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Action Taken 1	86 - Investigate
Apparatus Type	00 - Other apparatus/resource
Personnel 1	10454 - McCubbins, Chris
	Position: AFM
	Personnel Action Taken 1: 86 - Investigate

Apparatus - P5	
Apparatus ID	P5
Apparatus Arrival Date and Time	11:34:07 Tuesday, June 11, 2013
Apparatus Clear Date and Time	12:40:49 Tuesday, June 11, 2013
Apparatus priority response	Yes
Apparatus Use	1
Apparatus Action Taken 1	86 - Investigate
Apparatus Type	00 - Other apparatus/resource

Authority	
Reported By	10109 - Parks, Daniel W
	22:19:45 Tuesday, June 11, 2013
Officer In Charge	10109 - Parks, Daniel W
	22:19:42 Tuesday, June 11, 2013
Reviewer	-,

Narratives	
Narrative Name	CAD Narrative
Narrative Type	CAD Narrative
Author	-,
Narrative Text	Incident Type:FIRE STRUCTURE How Call Taken: P
Narrative Name	TNG1 - Parks
Narrative Type	Incident
Narrative Date	21:52:47 Tuesday, June 11, 2013
Author	10109 - Parks, Daniel W
Author Rank	CAPT
Author Assignment	1
Narrative Text	DC Garrison acted as PIO giving an e-mail statment after the fire. He was on the fire scene.
	DP
Narrative Name	E51 -Parks
Narrative Type	Incident
Narrative Date	21:52:59 Tuesday, June 11, 2013

Narratives	
Author	10109 - Parks, Daniel W
Author Rank	CAPT
Author Assignment	1
Narrative Text	Computer Generated Report: At 0938 hours on Tuesday June 11, 2013 we were dispatched to a building fire. Twelve units were assigned to this incident. Twenty-one personnel responded. We arrived on scene at 0944 hours and cleared at 1358 hours. The incident occurred at 7255 WINDSWEPT LP, SPARKS in District 89. The local station is S5. The general description of this property is 1 or 2 family dwelling. The primary task(s) performed at the scene by responding personnel were salvage and overhaul. Automatic aid was received on this incident. The involved structure is described as an enclosed building. The building was occupied and operating. "Wall surface: exterior" best describes the primary use of the room or space where the fire originated. This building has one story above ground. The fire occurred on the first floor. The fire was confined to the room of origin. "Arcing" best describes the heat source that caused the ignition. The cause of ignition is under investigation. The material first ignited was "Type of material, other". "Unspecified short-circuit arc" contributed to the ignition of the fire. The building was equipped with smoke detectors. The detection system was hardwired with battery backup. The detector(s) did not operate because the fire was too small. The estimated property loss on this incident was $1,500. The estimated property value was $1,500. Alarm number 1304099 has been assigned to this incident. **** E-51 Report: A first alarm assignment came in for a house fire in district 5 near Hubble and Vista additional 911 calls from neighbors gave the address as 7255 Windswept Drive, with flames coming from the electrical panel for the house. E-51 was checking wildland checking wildland access map 79 when call came in and immediately responded. Sparks Police were first on scene followed by E-51 and then TM E-17 several arriving several minutes after E-51. E-51 located the the building both by a short burst of a shower of sparks coming from the exterior garage wall. Another shower of sparks came out as we approached. Arrival: On arrival Captain Parks on E-51 took command and did a 360 walk around finding no smoke from eves and living area clear of smoke. The fire originated in the Smart meter area (Smart meter burned/melted completed out).NV Energy was requested to respond to disconnect the power from the house. A thirty minute ETA was given by Nv Energy, a gas technician arrived first. He relayed info to the Electrical Technician. All windows were locked so TM E-17 was given the assignment to force the garage man door which they did. The garage was clear of smoke. The sheet rock wall was warm behind the electrical panel. This was not opened up until NV Energy told us the power service coming to the house was off. Meantime L-41 was given the assignment to check the attic

Narratives

for smoke, Light smoke was found in the attic. This was monitored by L-41 it was slowly dissipating. When the power had been shut off, Truck -11 was given the assignment to open up the interior garage wall in the area of the electrical service panel. No fire extension was found. Fire inspector Van Ness arrived and started his investigation. Fire apparatus were progressively released when no longer needed, whit E-51 being the last apparatus to leave at 11:47 a.m. Sparks Fire Prevention officers/investigators remained on scene holding custody of the fire scene. See their report for the investigation. The homeowners (Husband/wife) arrived on scene fairly early. NV Energy sent Technicians (2), Claims personnel, and a safety person.

Damage: Fire and smoke damage to the Electrical service boxes and surrounding stucco wall. Smoke odor in house. Garage door and frame broken when we forced entry. Sheet rock damage. This may not be a complete list.

Investigation: Handled by Sparks Fire Prevention.

See the individual apparatus narratives in this Incident for their actions.
DP
*****

Narrative Name	TM17 -Parks
Narrative Type	Incident
Narrative Date	21:58:57 Tuesday, June 11, 2013
Author	10109 - Parks, Daniel W
Author Rank	CAPT
Author Assignment	1
Narrative Text	Truckee Meadows Engine 17 responded through an automatic aid request. They were second on scene and, after E-51 found all windows locked, I gove them the order to force the garage man door, which they did giving us access to the house. TM Engine 17 was the first engine released from the call. DP *****
Narrative Name	L41 - Warner
Narrative Type	Incident
Narrative Date	21:23:18 Tuesday, June 11, 2013
Author	10283 - Warner, Joe
Author Rank	CAPT
Author Assignment	1
Narrative Text	L41 responded to a report of a structure fire. Upon arrival found E51 and TM17 on scene. L41 staged in the area until assigned to check attic for extension. L41 made access and found light smoke in the attic space and no heat on TIC. Reported to command. Homeowner arrived on scene and L41 met with her and updated her on situation. L41 called her husband at her request to advise and he was en route. We then loaned the homeowner E51's phone to call fanmily member. L41 checked attic again and still found light smoke. T11 opened wall in area of origin and checked for extension. L41 checked attic area once more and found smoke was diminishing. L41 released and cleared.
Narrative Name	E21 - Parks
Narrative Type	Incident

Narratives	
Narrative Date	22:02:41 Tuesday, June 11, 2013
Author	10109 - Parks, Daniel W
Author Rank	CAPT
Author Assignment	1
Narrative Text	E-21 was asked to stage, whihc they did. They were then released aproximately 15 minutes after arrival. They were not used on the fire. DP
Narrative Name	BC2 - Parks
Narrative Type	Incident
Narrative Date	22:05:09 Tuesday, June 11, 2013
Author	10109 - Parks, Daniel W
Author Rank	CAPT
Author Assignment	1
Narrative Text	BC-2 arrived on scene and did not take command. He assisted Captain Parks providing suggestions and advise with the command phase of operations. DP
Narrative Name	E31 - Parks
Narrative Type	Incident
Narrative Date	22:06:06 Tuesday, June 11, 2013
Author	10109 - Parks, Daniel W
Author Rank	CAPT
Author Assignment	1
Narrative Text	E-31 was cancelled on arrival. DP
Narrative Name	T11 - Parks
Narrative Type	Incident
Narrative Date	22:11:40 Tuesday, June 11, 2013
Author	10109 - Parks, Daniel W
Author Rank	CAPT
Author Assignment	1
Narrative Text	Truck 11 was given two assignments: After NV Energy disconnect the power to the house (underground connection at the street curb). T-11 opened us the interior wall behind the electrical panel exposing the panel back and wiring (incoming at floor level and house wiring going from the panel through the framing top plate. No fire extension was found, with on light smoke discoloration on the wiring above the electrical box. The second assignment was to check the attic area for smoke after L-41 was released from this assignment. Light smoke remained, which was gradually dissipating. DP
Narrative Name	TNG2 - Parks
Narrative Type	Incident
Narrative Date	22:18:52 Tuesday, June 11, 2013
Author	10109 - Parks, Daniel W
Author Rank	CAPT
Author Assignment	1
Narrative Text	Traininng served mulpitple functions acting as the incedent safety officer, meeting other arriving agencies, assisting the home owner - Husband and wife. DP

Narratives	
Narrative Name	P4 - Required
Narrative Type	Incident
Narrative Date	08:41:04 Wednesday, June 12, 2013
Author	10109 - Parks, Daniel W
Author Rank	CAPT
Author Assignment	1
Narrative Text	Investigation
Narrative Name	P2 - Required
Narrative Type	Incident
Narrative Date	08:41:16 Wednesday, June 12, 2013
Author	10109 - Parks, Daniel W
Author Rank	CAPT
Author Assignment	1
Narrative Text	Investigation
Narrative Name	P5 - Required
Narrative Type	Incident
Narrative Date	08:41:24 Wednesday, June 12, 2013
Author	10109 - Parks, Daniel W
Author Rank	CAPT
Author Assignment	1
Narrative Text	Investigation

End of Report

7255 Windswept Loop

89436

PRAETORIAN INSURANCE CO.

Agent:
Westwood INSURANCE Agency
8407 Fallbrook Ave Ste 200
West Hills CA 91304
800-676-5466

POLICY #: [redacted]

Issued 9/4/2012

JALIL, Abdul SABIR
(insured)

FIRST MORTGAGE:
1MORTgage.com INC
[redacted]
4800 N. Scottsdale Rd. #3800

Scottsdale AZ. 85251

Power outage in area in the afternoon 6-10-13.

Smoke alarms did not activate w/ a fair-amount of smoke in the home.

[redacted]

CHAIN OF CUSTODY
SPARKS POLICE DEPARTMENT
PROPERTY & EVIDENCE

CASE #

EVIDENCE USE ONLY

BAR CODE

DATE OBTAINED	TIME OBTAINED	OFFENSE(S)

NAME OF RIGHTFUL OWNER(S)

ADDRESS | PHONE

LOCATION WHERE FOUND OR FROM WHOM OBTAINED

LOCKER NO.	OFFICER'S NAME (LAST, FIRST)	SPECIAL NOTATIONS:

ITEM #	QUANTITY	DESCRIPTION OF PROPERTY	TYPE	DISPO

SIGNATURES	I.D. #	DATE	EVIDENCE USE ONLY
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			

SIGNATURES	I.D. #	DATE	EVIDENCE USE ONLY
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			

TYPE:
- C - CONFISCATED
- E - EVIDENCE
- F - FOUND
- SK - SAFEKEEPING

DISPOSITION:
- 0 - HOLD
- 1 - RELEASE TO OWNER
- 2 - HOLD FOR FORFEITURE
- 3 - RELEASE TO DMV
- 4 - RELEASE TO OTHER (SPECIFY IN "NOTATIONS")
- 6 - DESTROY

ORIGINAL: EVIDENCE • COPY: RECORDS

CHAIN OF CUSTODY
SPARKS POLICE DEPARTMENT
PROPERTY & EVIDENCE

CASE # F1304029

EVIDENCE USE ONLY

BAR CODE S034096

DATE OBTAINED	TIME OBTAINED	OFFENSE(S)
6/10/13	09:38	FIRE - 1 SV.

NAME OF RIGHTFUL OWNER(S): SPARKS FIRE DEPT

ADDRESS: 7255 WISE SWIFT LOOP | PHONE:

LOCATION WHERE FOUND OR FROM WHOM OBTAINED: SAME AS ABOVE

LOCKER NO.	OFFICER'S NAME (LAST, FIRST)	SPECIAL NOTATIONS:
L.B.	PARSONS, DONALD	

ITEM #	QUANTITY	DESCRIPTION OF PROPERTY	TYPE	DISPO
DSP1	1	DVD-R OF EXCIVE AUDIO RECORDING	E	0

SIGNATURES	I.D. #	DATE	EVIDENCE USE ONLY
Don Parsons	P.S.	6/10/13	
RECEIVED BY	5815	6/12/13	
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			

SIGNATURES	I.D. #	DATE	EVIDENCE USE ONLY
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			

TYPE:
- C - CONFISCATED
- E - EVIDENCE
- F - FOUND
- SK - SAFEKEEPING

DISPOSITION:
- 0 - HOLD
- 1 - RELEASE TO OWNER
- 2 - HOLD FOR FORFEITURE
- 3 - RELEASE TO DMV
- 4 - RELEASE TO OTHER (SPECIFY IN "NOTATIONS")
- 6 - DESTROY

ORIGINAL: EVIDENCE • COPY: RECORDS

CHAIN OF CUSTODY
SPARKS POLICE DEPARTMENT
PROPERTY & EVIDENCE

CASE # FD1304099

EVIDENCE USE ONLY OB

BAR CODE S003067

DATE OBTAINED	TIME OBTAINED	OFFENSE(S)
6/11/13	15:24	FIRE INVESTIGATION

NAME OF RIGHTFUL OWNER(S): NV ENERGY

ADDRESS: 7755 WINDSOR ACCESS

PHONE:

LOCATION WHERE FOUND OR FROM WHOM OBTAINED:

LOCKER NO.	OFFICER'S NAME (LAST, FIRST)	SPECIAL NOTATIONS:
	VANNESS, CHRIS	

ITEM #	QUANTITY	DESCRIPTION OF PROPERTY	TYPE	DISPO
CV1	2	[illegible] - SMART METER	C	0
		AN SHAVED - POWER BAG		
CV2	1	PANEL COVER - PLASTIC BAG	C	0

SIGNATURES	I.D. #	DATE	EVIDENCE USE ONLY
RECEIVED BY [illegible]	[illegible]	[illegible]	
RECEIVED BY [illegible]	[illegible]	6/11/13	
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			

SIGNATURES	I.D. #	DATE	EVIDENCE USE ONLY
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			

TYPE:
- C - CONFISCATED
- E - EVIDENCE
- F - FOUND
- SK - SAFEKEEPING

DISPOSITION:
- 0 - HOLD
- 1 - RELEASE TO OWNER
- 2 - HOLD FOR FORFEITURE
- 3 - RELEASE TO DMV
- 4 - RELEASE TO OTHER (SPECIFY IN "NOTATIONS")
- 6 - DESTROY

ORIGINAL: EVIDENCE • COPY: RECORDS

CITY OF SPARKS

COMMUNITY SERVICES DEPARTMENT

Fire Division **Building Division** **Planning Division**

(775) 353-2266 **(775) 353-2306** **(775) 353-2340**

email permitservices@cityofsparks.us

Job Site: 7255 WINDSWEPT LOOP SPKS
THE FOOTHILLS VILLAGE 9 STANDARD LOT

Parcel: 526-411-16

Owner: MERITAGE HOMES OF NEVADA INC

Applicant: MERITAGE HOMES OF NEVADA INC
Phone: (702) 896-9100

Contractor: MERITAGE HOMES OF NEVADA INC
Phone: (702) 896-9100

Permit Number: **A1200876**

Date Issued: 05/23/2012

Inspector: FM

Permit Type: RES

Sub Type: NSFR

Valuation: $151,628.00

Mech: $4,700.00

Description: 1400 SF SFR W/400 SF ATTACHED GARAGE W/2 TON A/C LOT 12

Fee Details:

Item#	Description	Total Fee	Paid	Prev. Pmts	Curr. Pmts
10	Building Fee	1,228.41	1,228.41	1,228.41	.00
20	Plan Review - Bldg	513.98	513.98	513.98	.00
40	Plumbing Fee	135.00	135.00	135.00	.00
60	Electrical Fee	69.50	69.50	69.50	.00
80	Mechanical Fee	111.25	111.25	111.25	.00
160	Const. Tax - Park Dist 3	1,000.00	1,000.00	1,000.00	.00
230	NSSOI Flood Plain	992.00	992.00	992.00	.00
250	NSSOI Park	691.00	691.00	691.00	.00
260	NSSOI Public Facility	200.00	200.00	200.00	.00
270	NSSOI Sewer Hookup	225.00	225.00	225.00	.00
275	Plan Check - Engineering	80.00	80.00	80.00	.00
300	Plan Check - Plan	140.00	140.00	140.00	.00
402	Sewer Connection	3,969.00	3,969.00	3,969.00	.00
403	Storm System Connection	1,009.00	1,009.00	1,009.00	.00
404	River Flood Protection	200.00	200.00	200.00	.00
9001	RTC Impact Fee - NE	4,387.96	.00	.00	.00
9004	RTC Credits - NE	-4,387.96	.00	.00	.00

Total Fees: $10,564.14

Payments: $10,564.14

Balance Due: $0.00

Note: This permit becomes null and void if work or construction authorized is not commenced within 180 days of issuance or if the construction, or work is suspended or abandoned for a period of 180 days.

I hereby certify that I have read and examined this permit and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not. The granting of this permit does not presume to give authority to violate or cancel the provisions of any other federal, state, or local law regulating construction or the performance of construction. **I further understand it is my responsibility to request and schedule all necessary inspections, including final inspection.** Where a Certificate of Occupancy is required, such building shall not be occupied until final inspection has been conducted and approved and the Certificate of Occupancy issued. The issuance of a Certificate of Occupancy is not a warranty or guarantee as to the quality of construction of the structure and it does not insure or guarantee that there are not violations of local, state, or federal laws. I hereby agree to save, indemnify and hold harmless the City of Sparks, it's officers, employees and agents against all liabilities which may accrue against the City arising from the undersigned's failure to perform in accordance with approved permit and plans.

Owner(s) Authorized Agent_____ Signature_____ Date _____

Print Name

Action	Comments	By	Date	Unique_Key
AP		JONP	09/07/2012	A001019171

Total Rows: 1

A1200876 : Entries for Item:520 - Electric Meter Set 12:35 06/18/2013

Action	Comments	By	Date	Unique_ Key
AP		Frankm	06/15/2012	A001013 815

Total Rows: 1

Name	Relationship	Number	Type	Sub Type	Status	Level	Date	Location	Balance	Title
BRIGGS ELECTRIC INC	CONTRACTOR	A1201807	RES	ALT	FINALED	A	09/12/2012	3453 GOOD HOPE LN SPKS	0	
BRIGGS ELECTRIC INC	APPLICANT	A1201807	RES	ALT	FINALED	A	09/12/2012	3453 GOOD HOPE LN SPKS	0	
BRIGGS ELECTRIC INC	CONTRACTOR	A1202371	ELEC		ISSUED	A	12/11/2012	6 E H ST SPKS	0	
BRIGGS ELECTRIC INC	APPLICANT	A1202371	ELEC		ISSUED	A	12/11/2012	6 E H ST SPKS	0	
BRIGGS ELECTRIC INC	CONTRACTOR	A1300887	ELEC		FINALED	A	05/15/2013	1560 HYMER AVE SPKS	0	
BRIGGS ELECTRIC INC	APPLICANT	A1300887	ELEC		FINALED	A	05/15/2013	1560 HYMER AVE SPKS	0	
BRIGGS ELECTRIC INC	CONTRACTOR	A1301074	ELEC		FINALED	A	06/12/2013	7255 WINDSWEPT LOOP SPKS	0	
BRIGGS ELECTRIC INC	APPLICANT	A1301074	ELEC		FINALED	A	06/12/2013	7255 WINDSWEPT LOOP SPKS	0	

Total Rows: 8

A1300887 : Entries for Item:570 - Final Electrical 12:56 06/18/2013

Action	Comments	By	Date	Unique_ Key
AP	new 200a meter base w/disconnect at same location as previous	FO	05/16/2013	A001034 008

Total Rows: 1

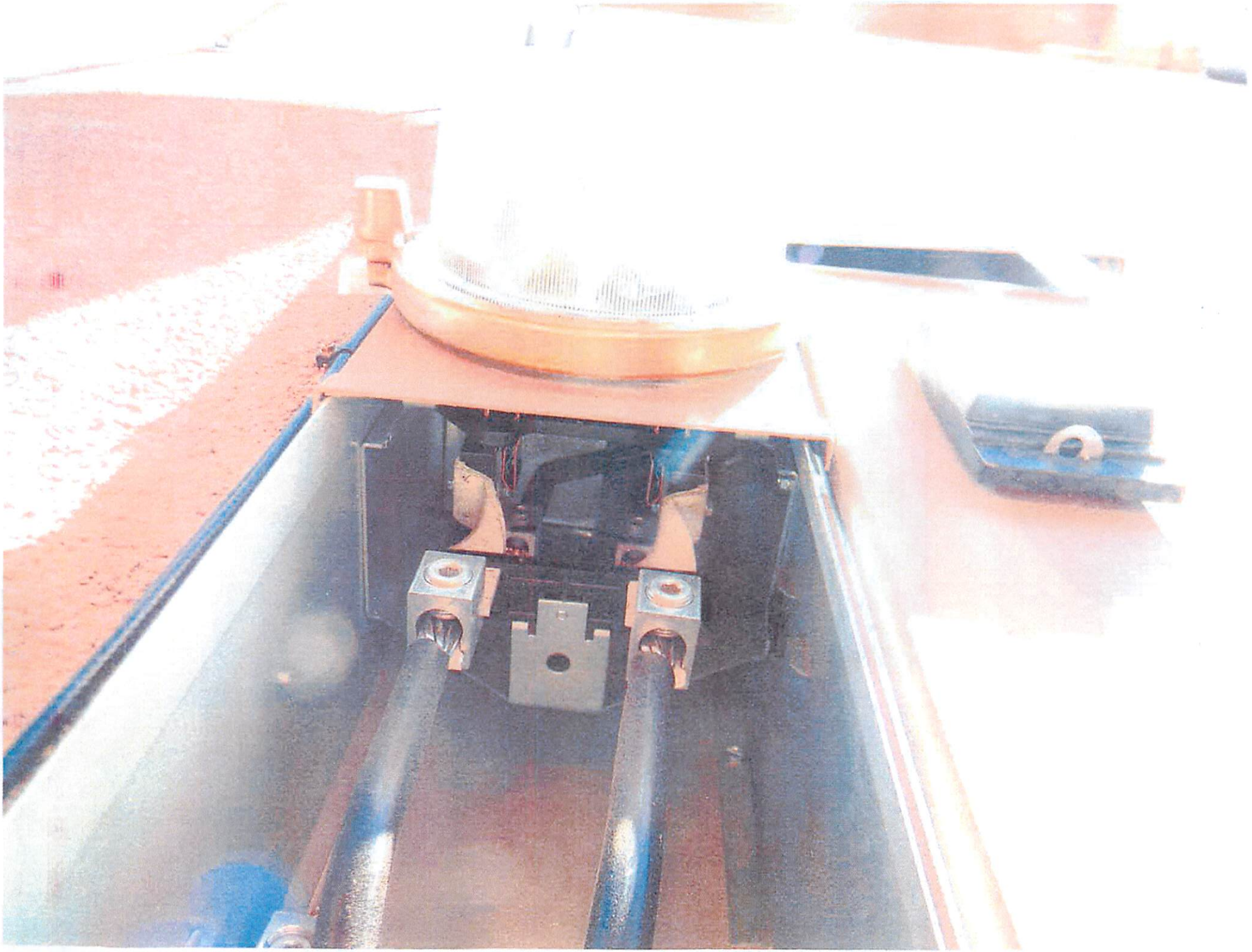
PHOTOGRAPHS FIELD NOTES 906-8	ROLL NO.	AGENCY	FILE NUMBER
	1	SFD	1304099

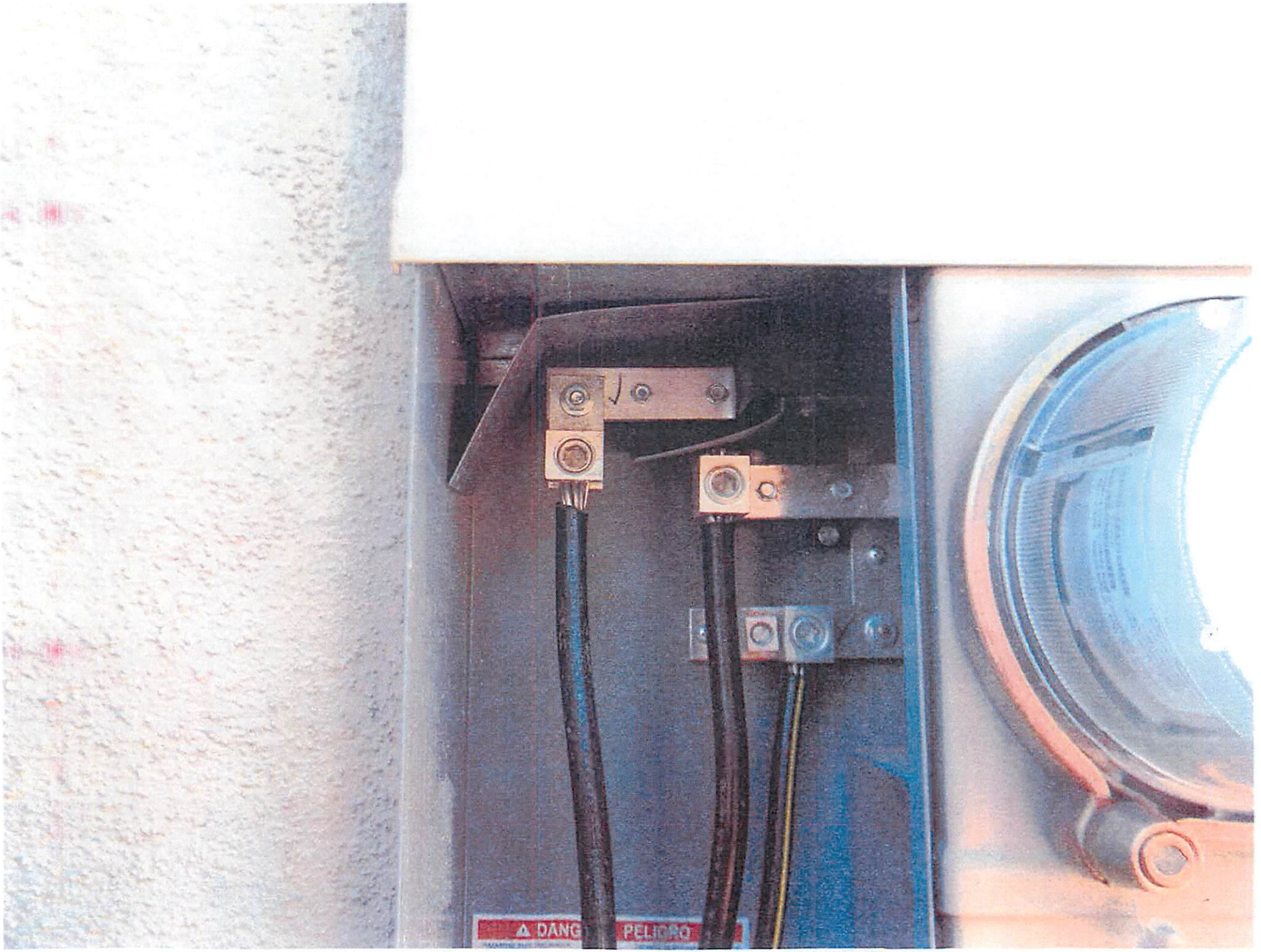
*ONLY ONE ROLL OF FILM PER FORM.

NEG.NO.	DESCRIPTION	NEG. NO.	DESCRIPTION
1	7255 WINDSWEPT LOOP	21	METER ON THE GROUND
2	FIRE AREA	22	HOLE FROM ARCHING
3	EXTERIOR WALL	23	HEAT DAMAGE
4	SMART METER	24	NV TECH OPENING PANEL
5	NV ENERGY TECH	25	REMOVING SEAL
6	SMART REMAINS	26	OPEN PANEL SERVICE SIDE
7	SMART METER MODEL	27	TESTING SERVICE SIDE
8	BACK OF PANEL	28	BREAKER BOX
9	SERVICE TO PANEL	29	COMPARING DAMAGE
10	LOAD SIDE WIRES	30	ARCHING FROM LUGS
11	HEAT DAMAGE	31	SERVICE LUGS
12	FIRE EXTENSION	32	LOAD SIDE OF METER
13	POINT OF ORIGIN LEFT SIDE PANEL	33	SERVICE SIDE OF METER NEXT DOOR
14	STUCCO SOFFIT	34	SERVICE SIDE BLADES NEXT DOOR
15	SMART METER RING AND BLADES	35	SERVICE SIDE BLADES
16	LOAD SIDE BLADES	36	METER DOOR INSIDE
17	LOAD SIDE WIRES	37	MAIN BREAKER DOOR DAMAGE
18	METER TYPE	38	GARAGE GFCI TRIPPED
19	SMART METER COMPONENTS	39	LITE DAMAGE RIGHT SIDE PANEL
20	SMART METER DAMAGE	40	LOAD SIDE WIRES

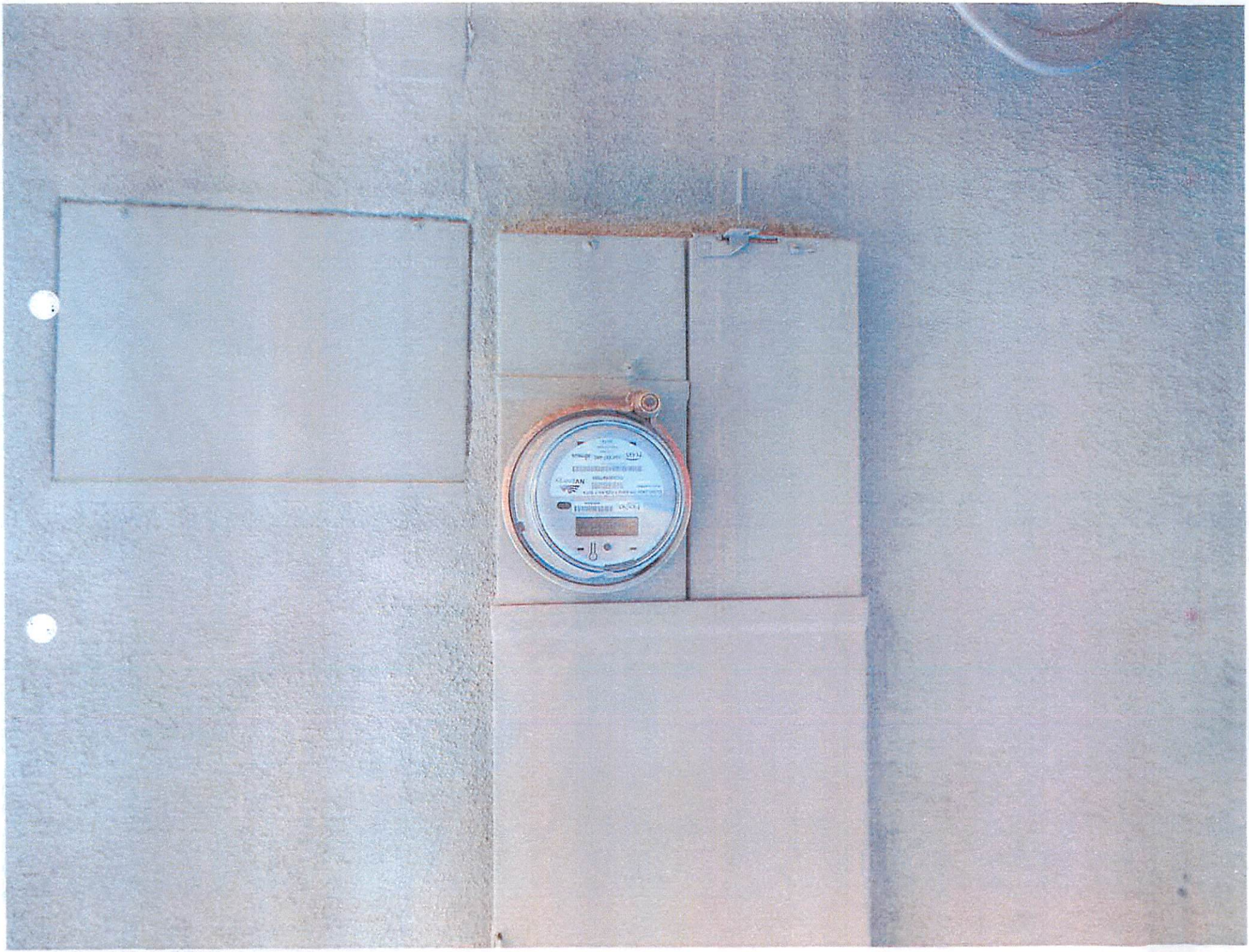
REMARKS
SENSUS SMART METER FIRE 6/11/2013

DANGER




⚠ DANG
PELIGRO

7255



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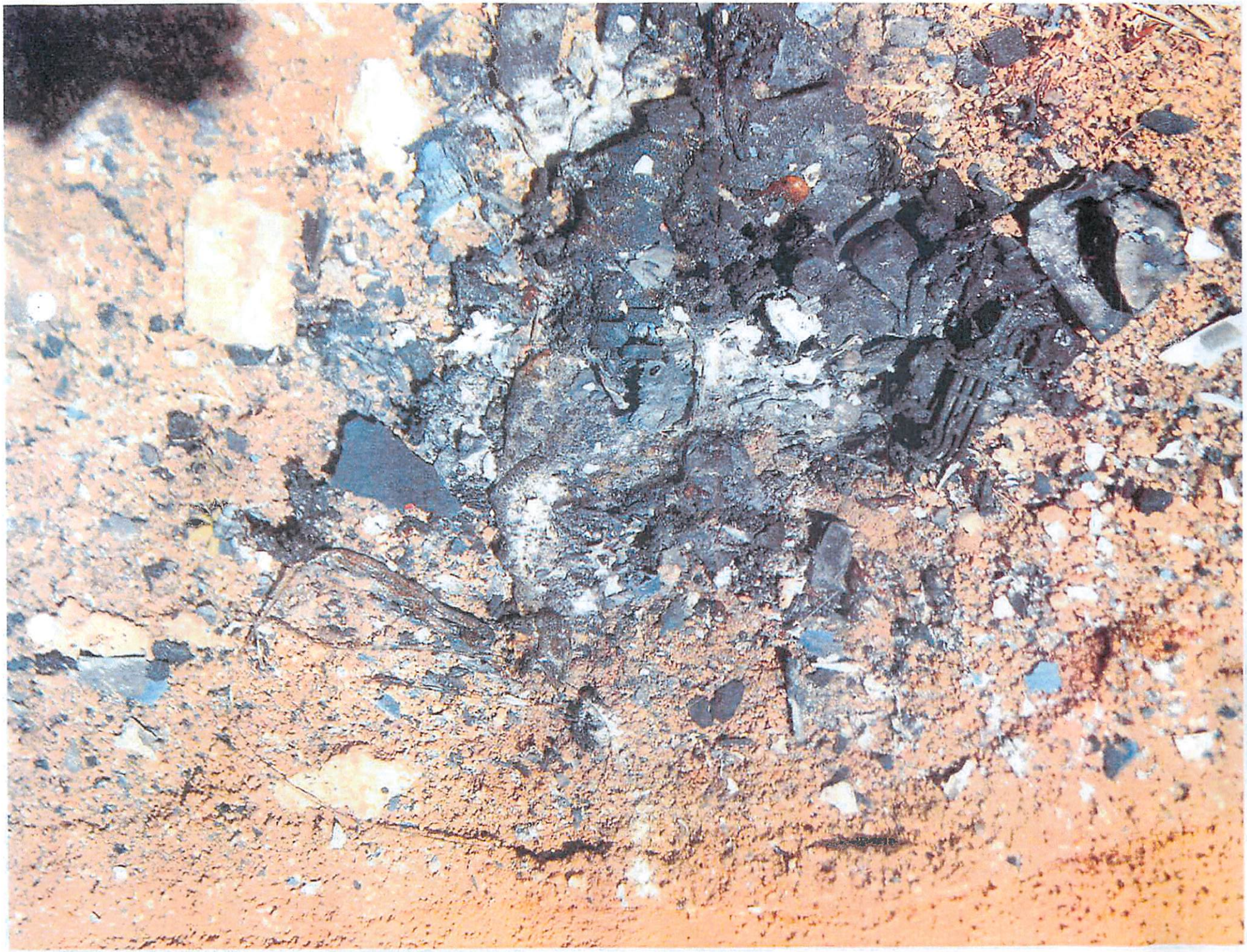
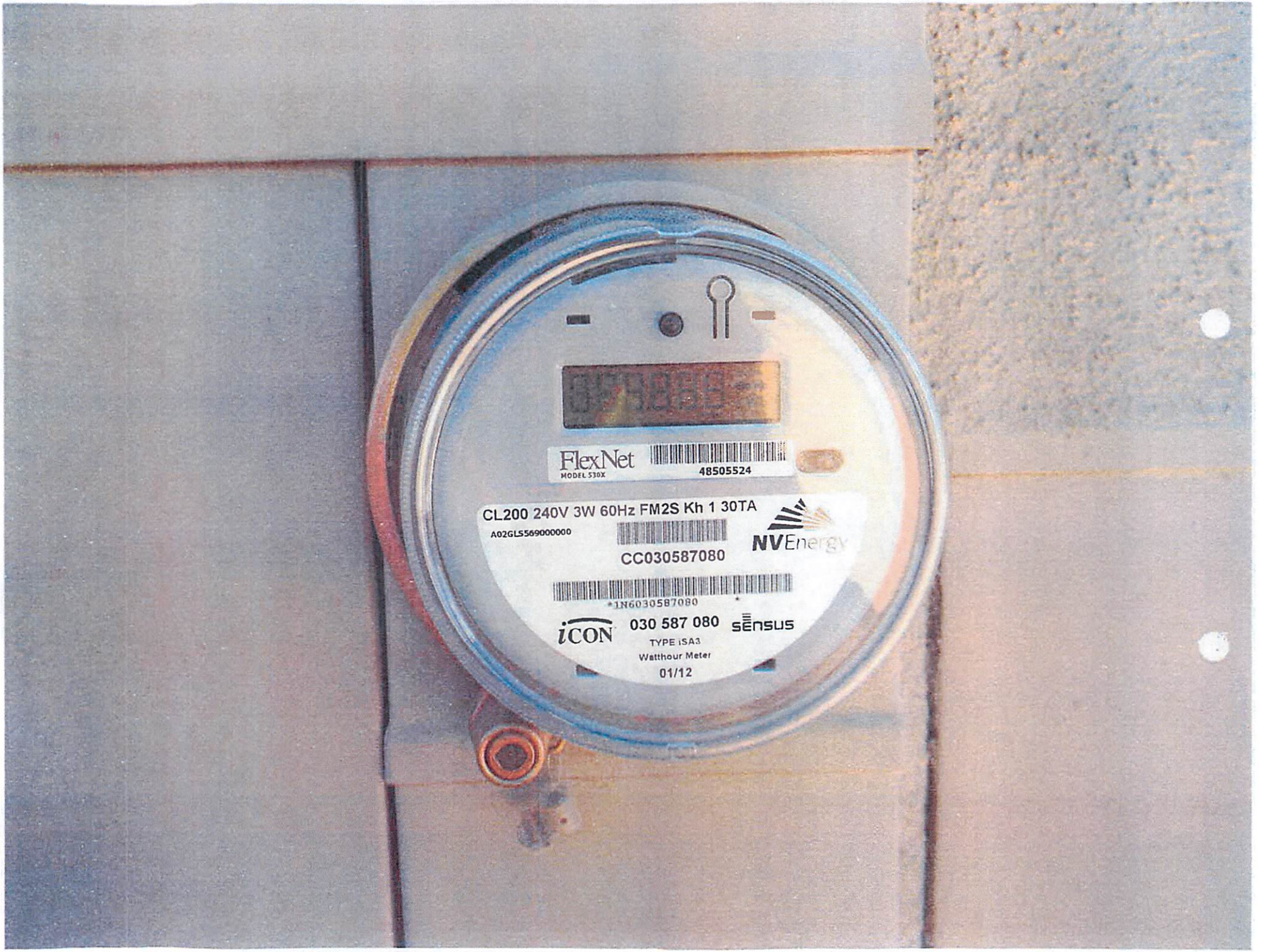
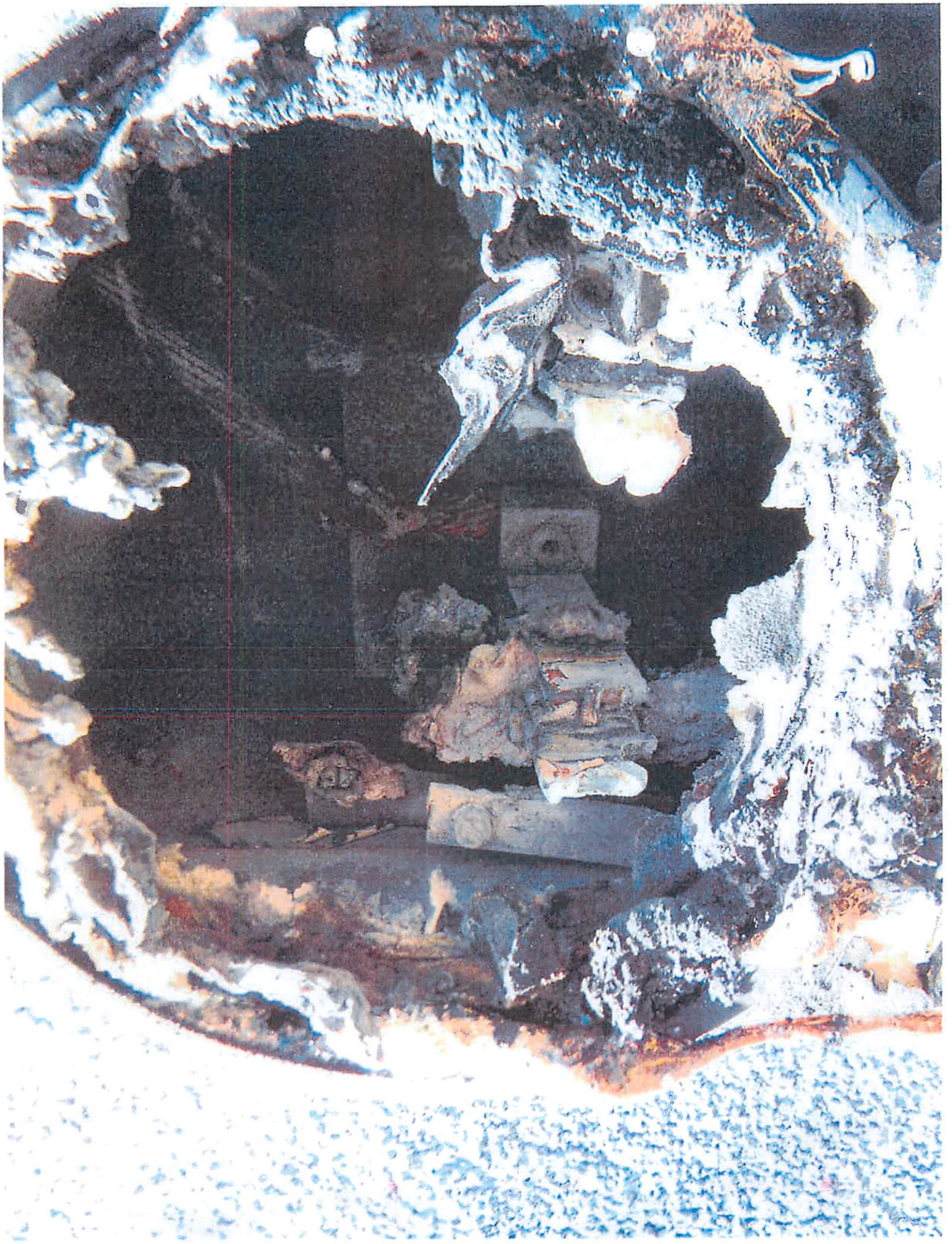
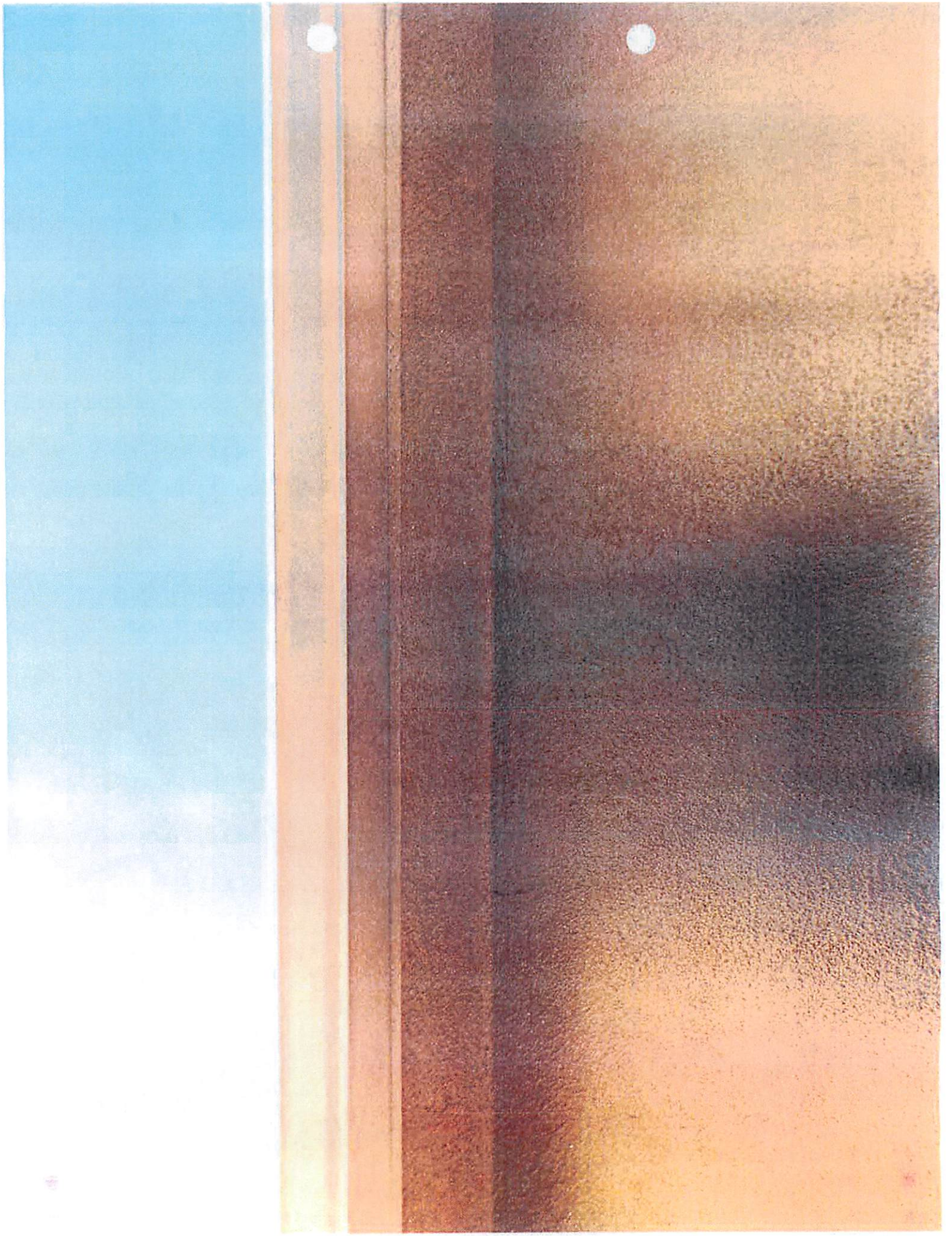
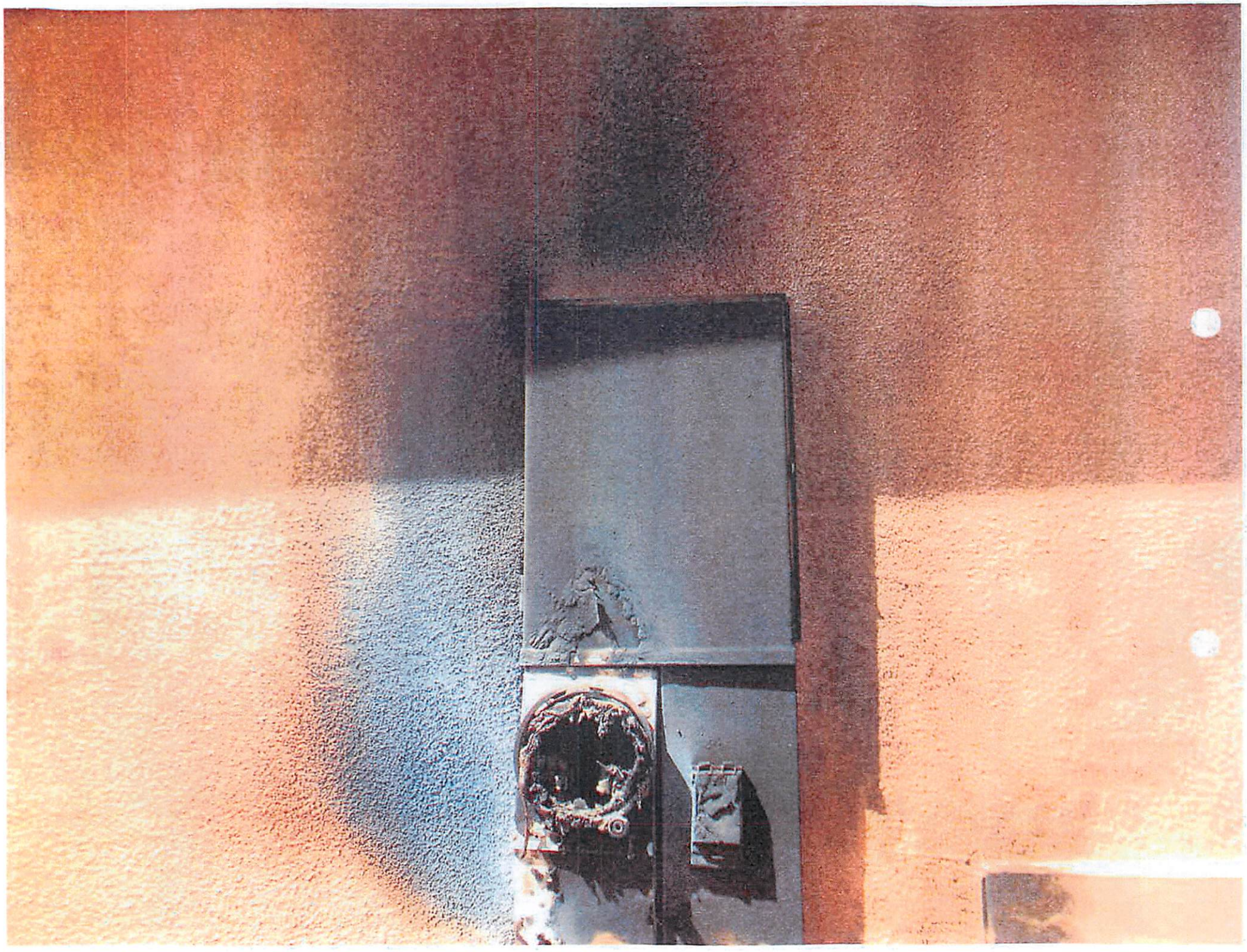
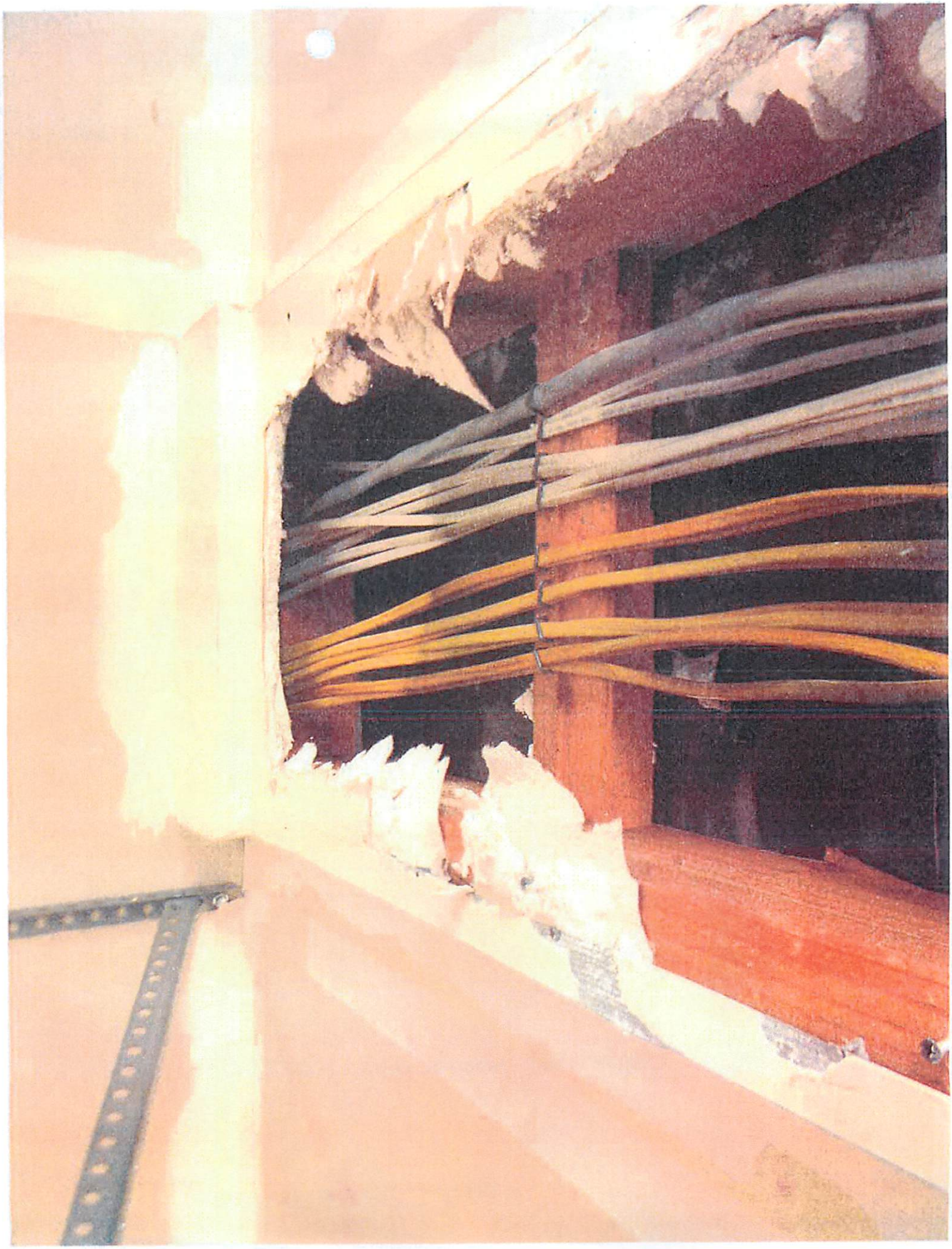



FlexNet
MODEL 530X
48505524
CL200 240V 3W 60Hz FM2S Kh 1 30TA
A02GLS569000000
CC030587080
NVEnergy
1N6030587080
iCON
030 587 080
sensus
TYPE iSA3
Watthour Meter
01/12





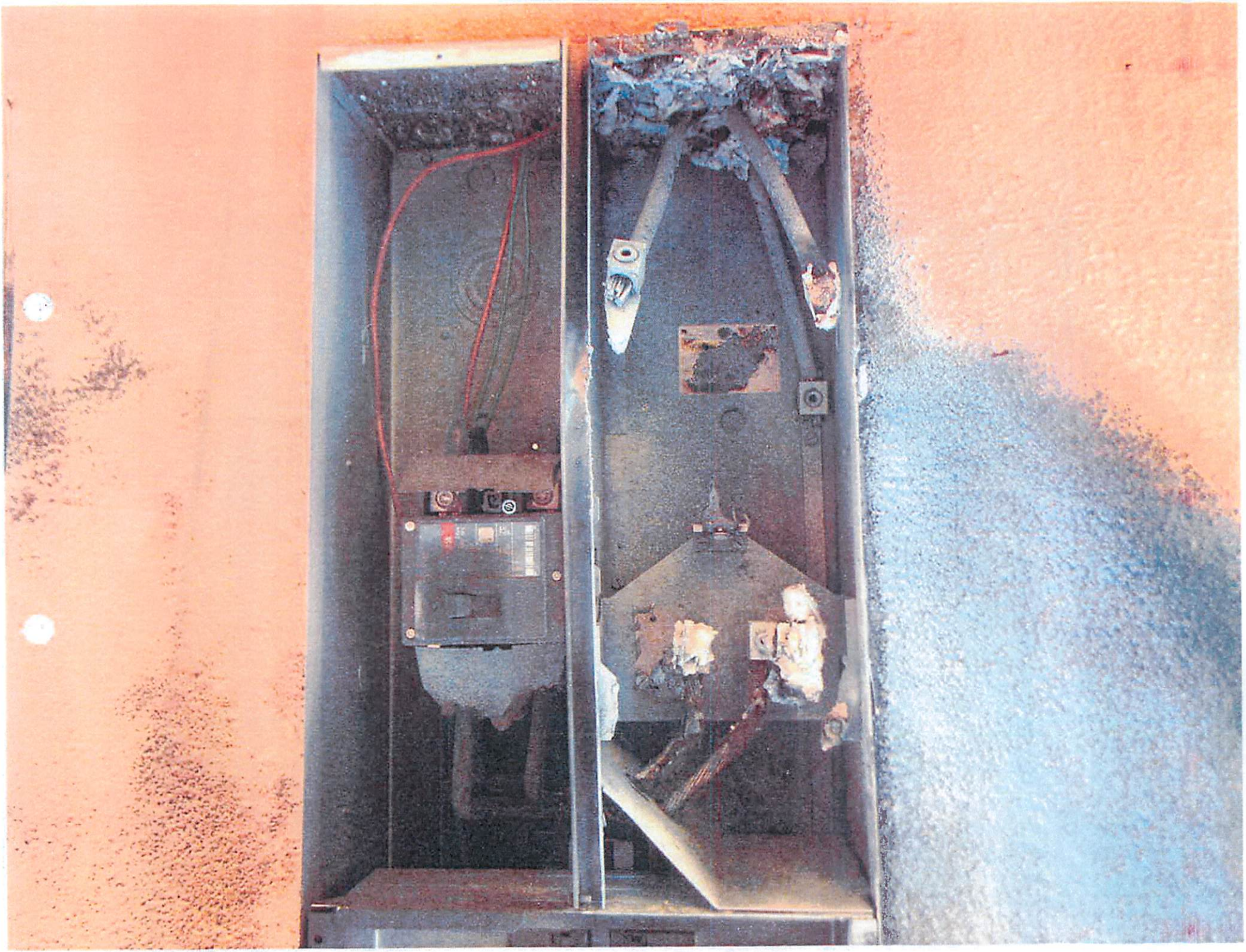


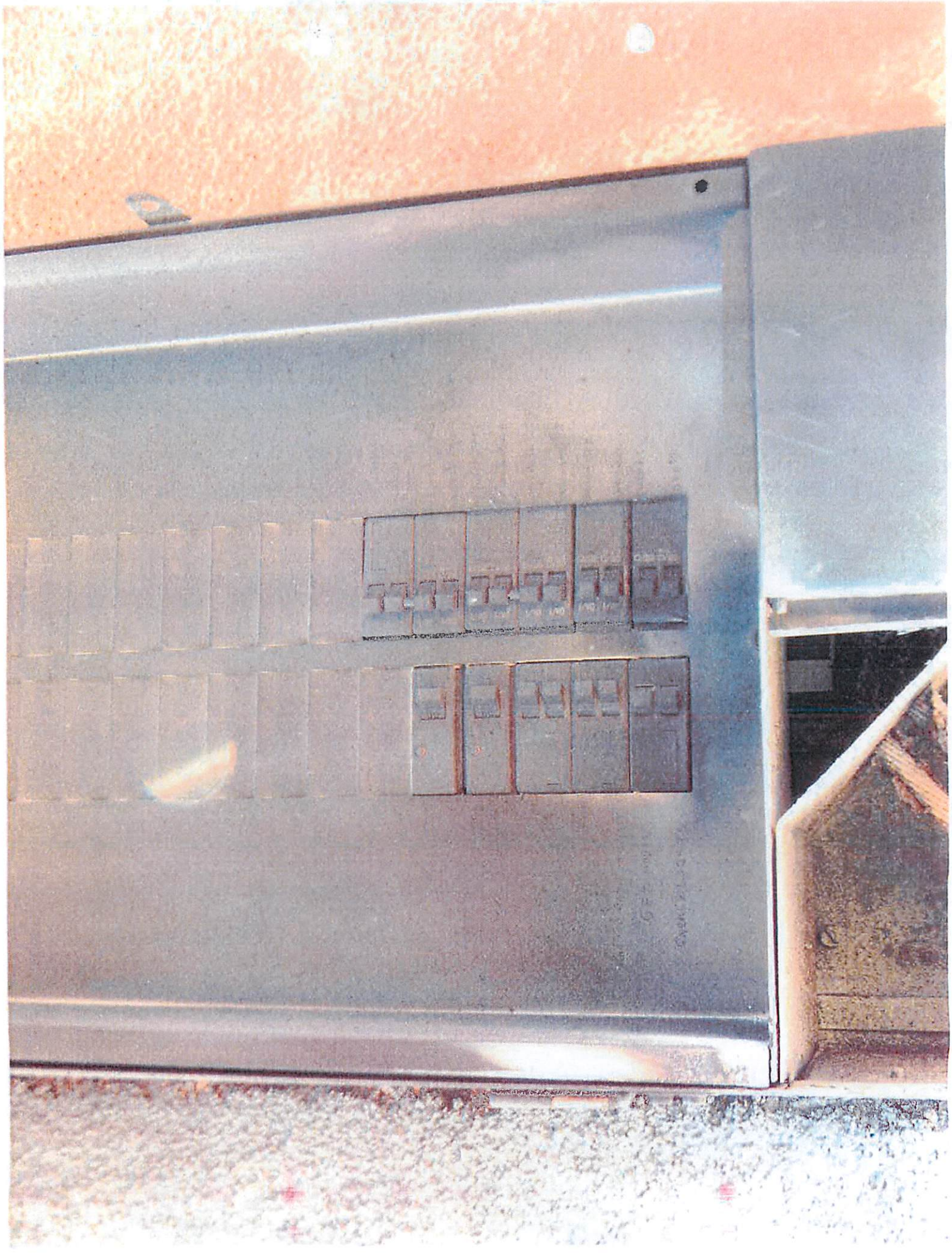


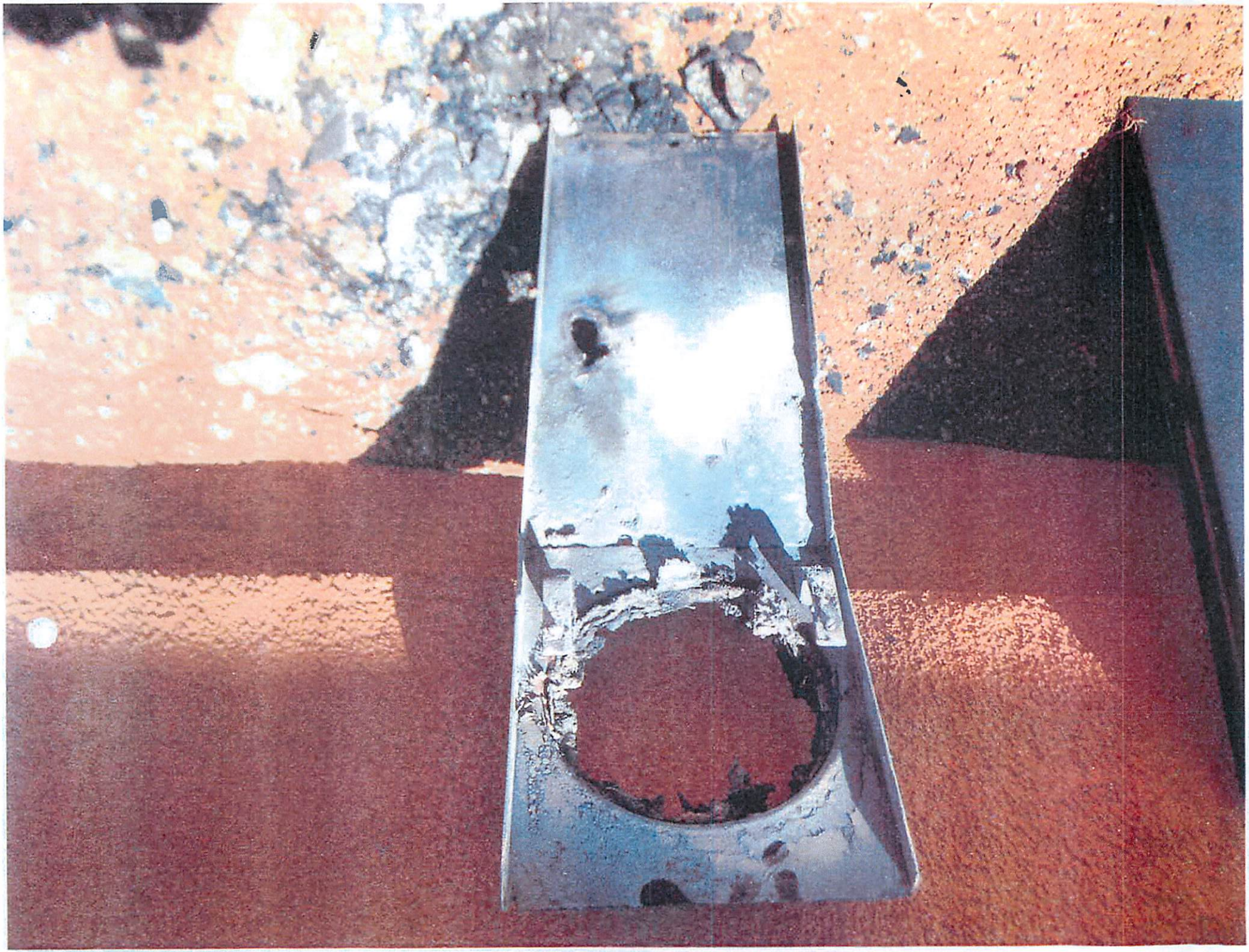
7255
400-C
SCHEME #10
KITCHEN ISLAND

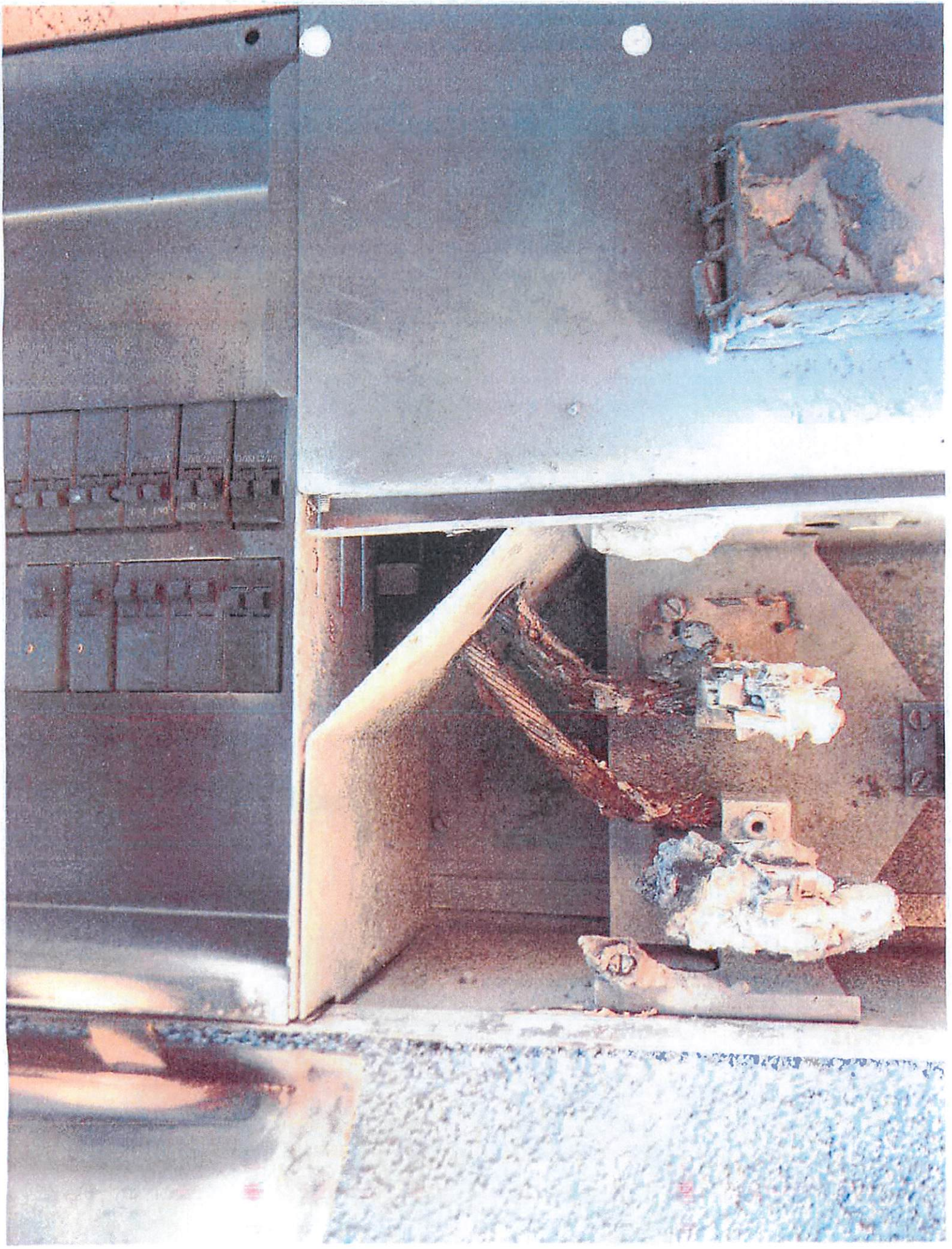
LOT 12
7255 WILDFLOWER
4020-C
SCHEME #10
OPT.
- OPT. MAN DOOR
- DUAL LAV @ MASTER
- KITCHEN ISLAND
- CEILING FAN PREWIRE
@ GREAT ROOM

7255









ATTACHMENT H.2

7255 Windswept Loop, Sparks
January 11, 2013 Incident

NV Energy Documents

ENGINEERING FORENSICS EXPERTS LLC
George J. Hogge PE
3136 E. Leland Circle
Mesa, AZ 85213
Phone: (602) 721-4202 Fax: (480) 664-7589
www.efxforensics.com

ENGINEERING EXAMINATION and ANALYSIS REPORT

File No: 3776-0711

Prepared for:
NV Energy
6226 W. Sahara Avenue, MS #3A
Las Vegas, NV 89146
Attn: Brandon M. Barkhuff, Assistant General Counsel

Claim No:	Unknown
Date of Occurrence:	6/11/13
Location of Occurrence:	7255 Windswept Cir, Sparks, NV

Dates of Examinations:
1. Evidence Examination: 7/11/13

CONTENTS:

(A) SUMMARY:
(B) ENCLOSURES:
(C) INSTRUCTIONS:
(D) BACKGROUND:
(E) EVIDENCE EXAMINATION:
(F) ANALYSIS:
(G) CONCLUSION:
(H) COMMENTS:
(I) PHOTO SHEETS

The investigation activities and reporting have been conducted in accordance with the following standards among others:

- NFPA 921-2011 Edition "Guide for Fire and Explosion Investigations"
- ASTM E620–04 "Standard Practice for Reporting Opinions of Scientific or Technical Experts"
- ASTM E678–07 "Standard Practice for Evaluation of Scientific or Technical Data"
- ASTM E860–07 "Standard Practice for Examining And Preparing Items That Are Or May Become Involved In Criminal or Civil Litigation"
- ASTM E1020–96 (Reapproved 2006) "Standard Practice for Reporting Incidents that May Involve Criminal or Civil Litigation"
- ASTM E1188–05 "Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator"
- ASTM E2332–04 "Standard Practice for Investigation and Analysis of Physical Component Failures"

(A) SUMMARY:

The damages found were consistent with an arc flash in the vicinity of the base of the meter in the service panel. It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the proximate cause of the arc flash cannot be determined.

- Errors during installation were eliminated as a possible cause.
- Tampering by any individual could not be eliminated as a possible cause.
- It is unlikely that any internal failure of the meter caused the fire based on the evidence.
- A voltage surge from the source was eliminated as a possible cause.
- A failure of the panel meter jaws or "hot socket" could not be eliminated as a possible cause.

(B) ENCLOSURES:

1. 27 color images of evidence examination (from digital photographs) with descriptions.
2. Itemized invoice for Forensic Engineering services to date.

(C) INSTRUCTIONS:

Original instructions were received from Brandon Barkhuff representing NV Energy for George J. Hogge PE, Principal Electrical Engineer to participate in a joint Forensic Engineering examination of an electrical service panel and the associated meter with representatives from

Further instructions were received from Brandon M. Barkhuff, Assistant General Counsel of NV Energy to provide a written Engineering Report.

(D) BACKGROUND:

This meter had been installed into the home on September 12, 2012, about 9 months prior to the arc event that occurred on June 11, 2013. The meter was installed as part of an overall system upgrade to utilizing "Smart Meters" on homes and businesses.

(E) EVIDENCE EXAMINATION:

An Electrical Engineering examination of the evidence was conducted on November 19, 2012 at the NV Energy facility in Reno, NV. Present were George J. Hogge PE, Principal Electrical Engineer of Engineering Forensics Experts LLC and other representatives for NV Energy as well as City of Sparks and ATF (Bureau of Alcohol, Tobacco, and Firearms) personnel.

A number of digital photographs were taken by EFX during the evidence examination. Selected photographs are attached below. Some of the attached photos might be rotated and/or cropped for clarity, however all photos are stored by EFX in their original digital format.

Photographs from the scene were presented as shown in Photos 1-4. The damages to the electrical service panel and the adjacent exterior wall were consistent with an arc flash event that originated at the service panel.

The evidence was presented by the ATF personnel wrapped in cardboard boxes.

The first artifact presented was a typical combination metering and circuit breaker panel (Photos 5-14). This panel was consistent with the service panel in the scene photographs. The typical rating for this panel would be 200 amps, 240/120 volts, single phase. The upper portion of the combination panel contained the branch circuit breakers full width. The lower portion was divided into 2 sections with the left side being the utility pull, termination, and metering section and the right side for the main circuit breaker.

The branch circuit breakers and associated cover were still in place (Photos 6-7). With the cover removed, it was apparent that the branch circuits had been removed from the circuit breaker terminals and the damages in that compartment were consistent with smoke and minor heat from external sources. There was no evidence of any arcing or other anomaly in that compartment. The circuit breakers and their status were:

On position: 1-2pole 30amp, 1-2pole 20amp, 8-single pole 20amp
Off position: 2-single pole 15 amp AFCI (Arc Fault Circuit Interrupter)
Tripped position: 2-15 amp single pole, labeled as "GFI House" and "Garage Lights"

Again, no background information was given to EFX as to why those circuits were tripped or why the AFCI breakers were OFF.

The main circuit breaker was rated for 200 amps and was found in the ON position (Photo 8). The main breaker compartment was relatively protected and the only damages were consistent with smoke intrusion.

The utility section on the left lower side had significant melting of the panel sides and covers consistent with arcing (Photo 9).

Photos 10-11 show the remains of the utility line or source side terminals where the underground 240 volt service lateral conductors would have been terminated. The damages to those terminals were consistent with melting due to electrical activity in the form of arcing. It is clear from Photo 11 that a ground fault occurred between those terminals and the metal cabinet of the panel.

The load side meter jaws consisted of a stacked arrangement consisting of meter clips and an extension (Photos 12-13). The meter stabs from the load side of the meter were still in place in the jaws, however they were melted off at about the base of the meter. The meter was charred and melted away such that the only portion remaining was at the loop and lock ring (Photo 14). The lock ring was present, however the locking mechanism had been damaged such that tampering could not be eliminated as a possible issue.

There was a significant amount of melt damage to the line side meter jaws and associated spring clips such that resistive heating of the jaws or a "hot socket" condition could not be eliminated as a possible factor in the failure (Photos 15-16).

The remains of the meter and the debris were sifted through to find all of the meter components possible and an exemplar meter was disassembled to provide comparative components (Photos 17-27).

A small circuit board containing relays, MOVs (Metal Oxide Varistors) and other soldered components was examined (Photos 18-19). The MOVs were found to be intact and clearly were not the cause of any fire or failure. MOV failure is a common cause of fires and equipment failure.

The exemplar circuit board that supports the main power buses through the meter is shown in Photo 20. The corresponding circuit board from the subject meter is shown in Photo 21. Clearly, there was significant line to line arcing within the meter, however this is typical even with external fire attack due to the close proximity of the buses and the fact that the utility transformers typically have no secondary fusing so this arcing will tend to be prolonged and intense. The other circuit boards from the subject were

compared to the exemplar components. All of the major circuit components such as capacitors were found to be present and were eliminated as a possible cause of the arc flash, as all damages to those components was consistent with external fire attack. Capacitor failure is also a common cause of fires and equipment failure

Very little remained of the internal buses and contacts (Photos 26-27), making a positive determination of any failure cause very unlikely.

(F) ANALYSIS:

The damages to the meter and associated meter jaws were severe and much of the main buses through the meter were missing.

The possible causes for this fault event and the resulting arc flash will be evaluated using the Scientific Method. As defined in the NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition, the proper methodology for the investigation and analysis of any fire cause is to utilize the Scientific Method:

3.3.144 Scientific Method. *The systematic pursuit of knowledge involving the recognition and formulation of a problem, the collection of data through observation and experiment, and the formulation and testing of a hypothesis.*

The following flow chart is shown in NFPA 921 to illustrate the basic premise of the scientific method to develop and test hypotheses to determine the cause of a fire:

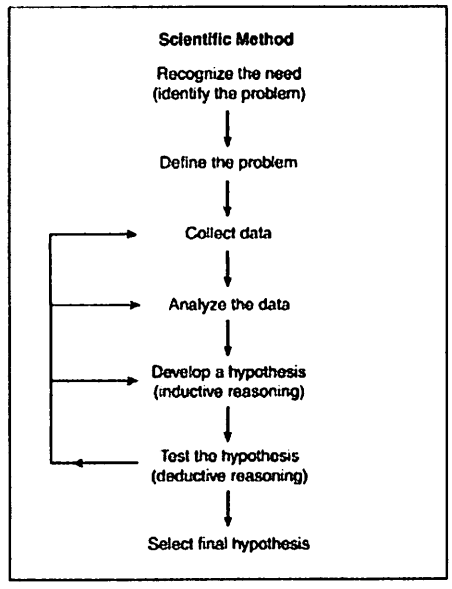


FIGURE 4.3 Use of the Scientific Method.

INSTALLATION:
This meter was installed into an existing panel on September 12, 2012, about 9 months prior to the arc event, which means it has survived through almost 4 seasons and many thermal cycles. If the meter was installed incorrectly to cause such an event, that event would have very likely occurred during or very quickly after the installation activities and not almost 1 year later. As shown in Figure 3 below, the meter stab prongs were placed securely into the jaws of the panel during installation. Error during installation was eliminated as a possible cause of the arc flash event.

TAMPERING:
The lock ring was found mounted onto the meter base and meter loop of the service panel. The scene photograph shows that the lock mechanism and the security seal were still present after the arc flash occurred. The internal portion of the lock mechanism had melted debris and could not be examined during a non destructive examination. Tampering by any individual could not be eliminated as a possible cause of the arc flash event.

FAILURE OR DEFECT IN METER:
Again, the Sensus meter was installed into an existing panel on September 12, 2012, about 9 months prior to the arc event, which means it has survived through almost 4 seasons and numerous thermal cycles. If the meter had some internal defect to cause such an event, that event would likely have occurred during or very quickly after the installation activities where it was energized to 240 volts and not almost 1 year later. It is unlikely that any internal failure or defect of the meter would cause this event after that much time. The internal capacitors and MOVs were found to be damaged consistent with external fire attack and were eliminated as a possible cause of any failure.

VOLTAGE SURGE FROM SOURCE:
The meter jaws and stab prongs are energized at 240 volts during normal operations of the service equipment. These jaw sets are separated by about 3 inches of space as well as a dielectric plastic barrier. The voltage level required to cause current to jump that distance through air would be thousands of volts even without a barrier. If there had been such a magnitude of surge, there would be widespread damage to the electrical systems and any appliances with electronics of this house and any others in the vicinity. A voltage surge was eliminated as a possible cause of the arc event.

FAILURE OF THE METER JAWS ASSOCIATED WITH THE SERVICE PANEL:
The melting of the meter stab prongs and the associated line side meter jaws of the panel is very pronounced where the prongs interface with the jaws. This Forensic Electrical Engineer has found many similar failures of such interfaces as a Journeyman Electrician and Electrical Contractor.

The meter jaws of the Cutler Hammer service panel rely on spring tension to keep good contact with the stab prongs of the meter assembly. If that spring loses its tension due to thermal cycles or defect, then any current flowing through the interface will begin to cause resistance heating. This exacerbates the typical thermal cycles experienced due to current and ambient temperature fluctuations as well as the weakness of the tension springs.

The failure of the panel meter jaws or "hot socket" could not be eliminated as a possible cause of the fire.

(G) CONCLUSION:

It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the proximate cause of the arc flash cannot be determined. It is unlikely that any internal failure of the meter caused the fire based on the evidence.

These conclusions were reached with reasonable scientific certainty based on:

1. Examinations of the evidence artifacts in the laboratory.
2. The undersigned investigator's education, training, and experience as a Journeyman Electrician and Registered Professional Electrical Engineer.

(H) COMMENTS:

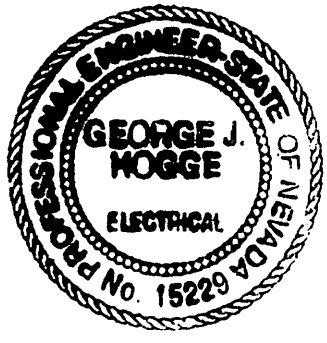
The statements and conclusions contained herein are based on the information given to and gathered by Engineering Forensics Experts at the time of this report. If additional information becomes available we reserve the right to change our conclusions.

Thank you for the opportunity to be of service.

George J Hogge P.E. 9/30/13

SIGNATURE DATE

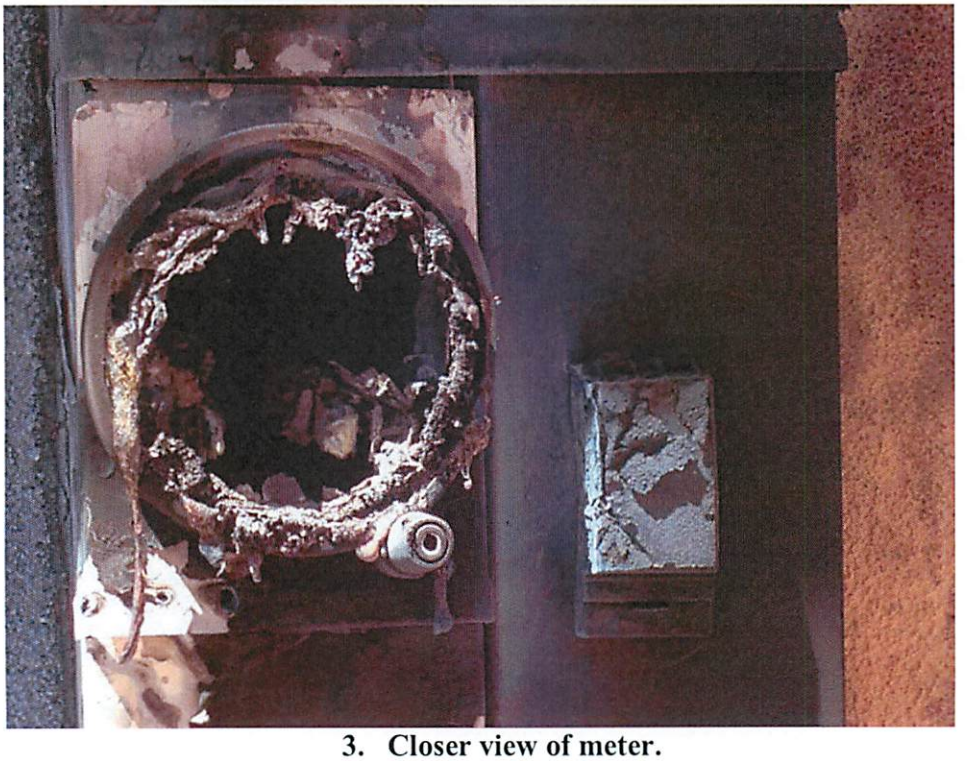
George J. Hogge PE
Principle Forensic Engineer



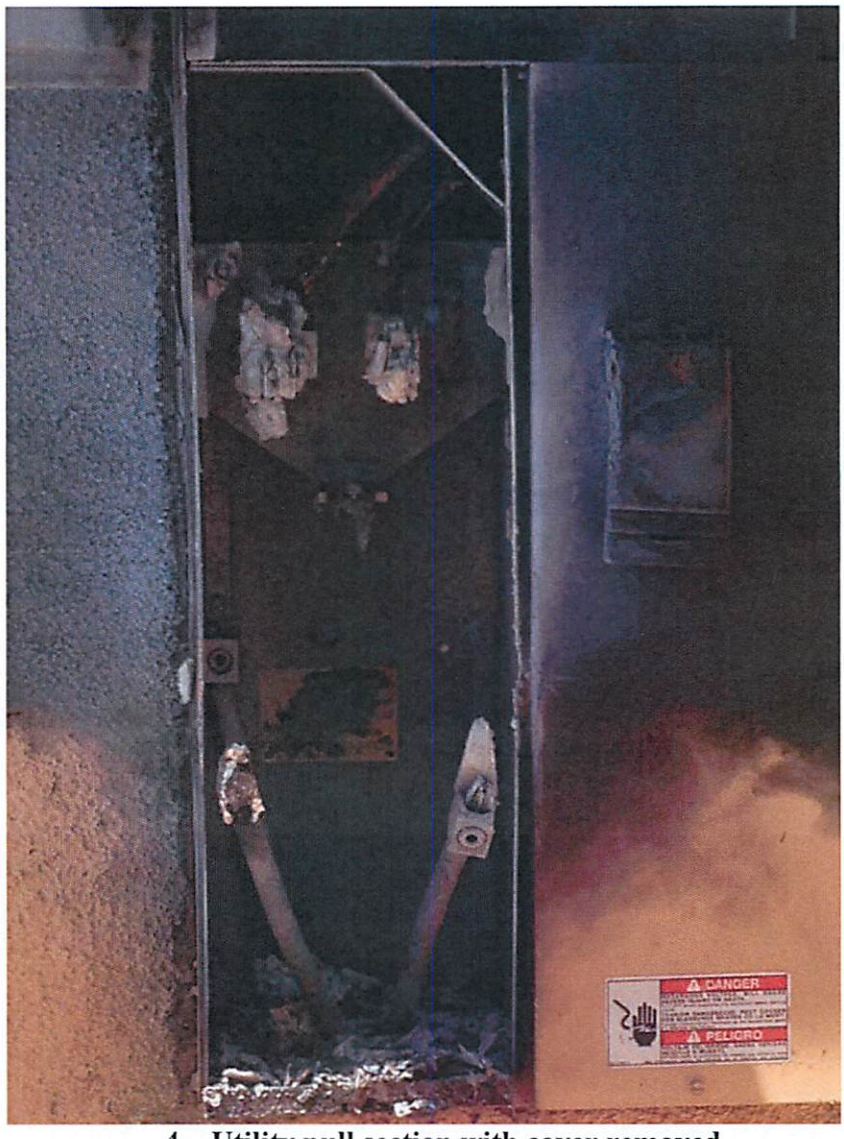
EXAMINATION PHOTOGRAPHS

1. Front view of service panel at scene.

2. Closer view of meter and utility section.

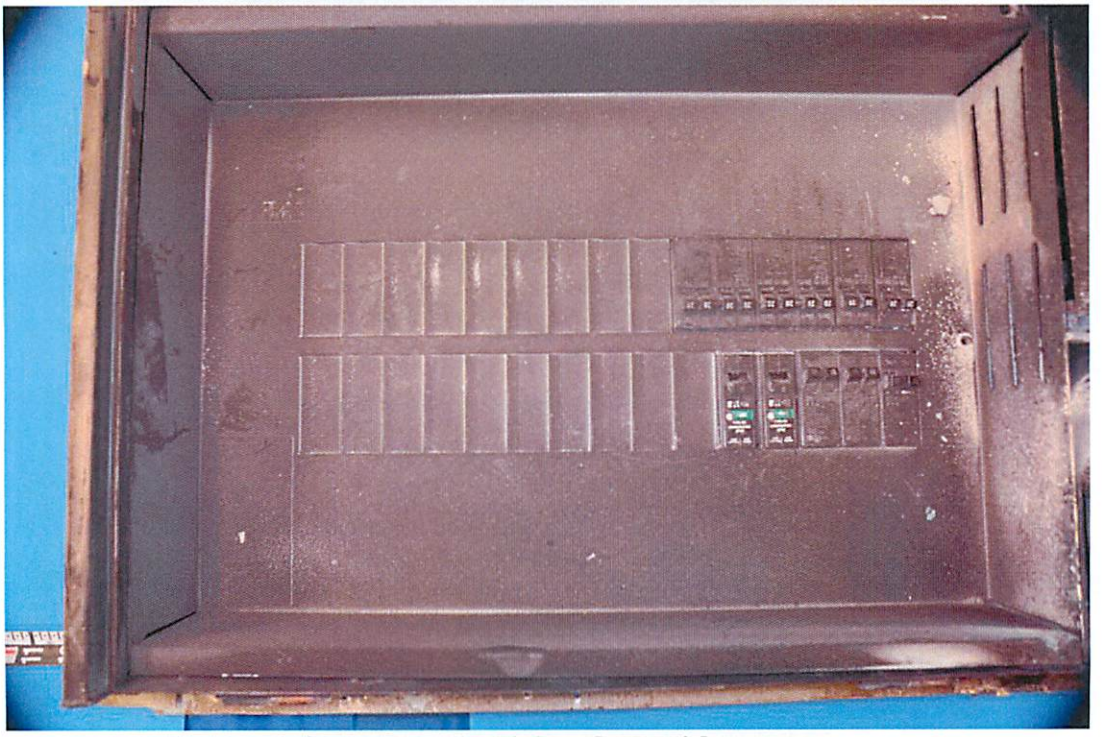


3. Closer view of meter.

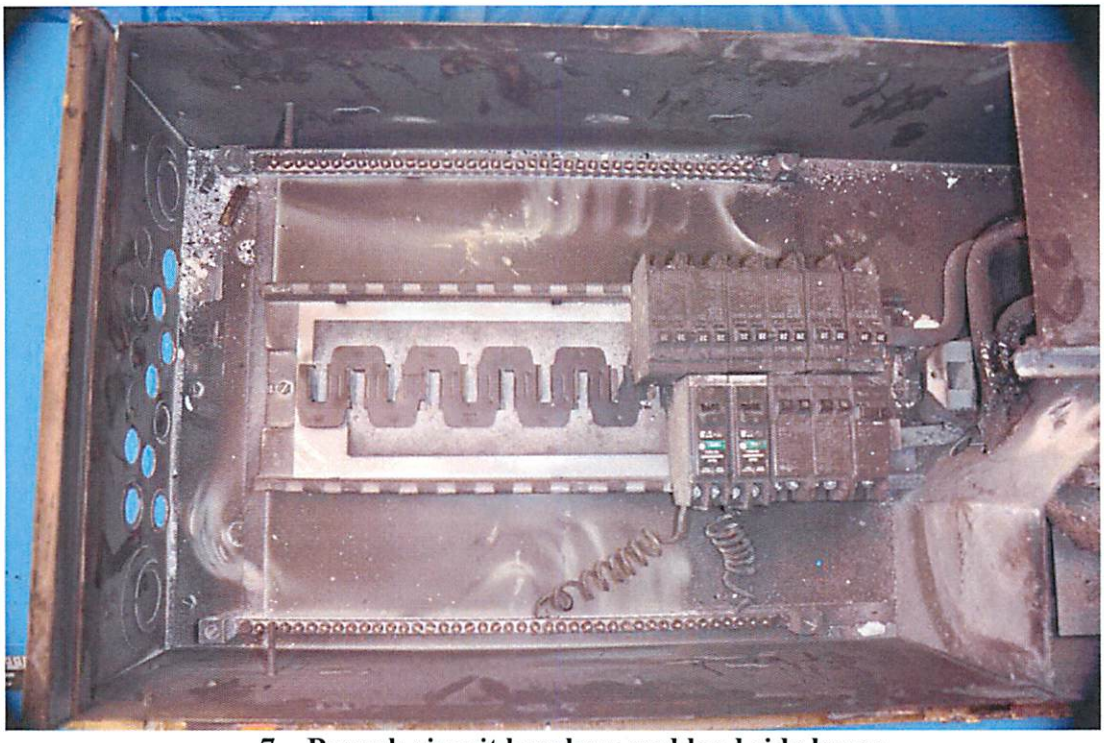


4. Utility pull section with cover removed.

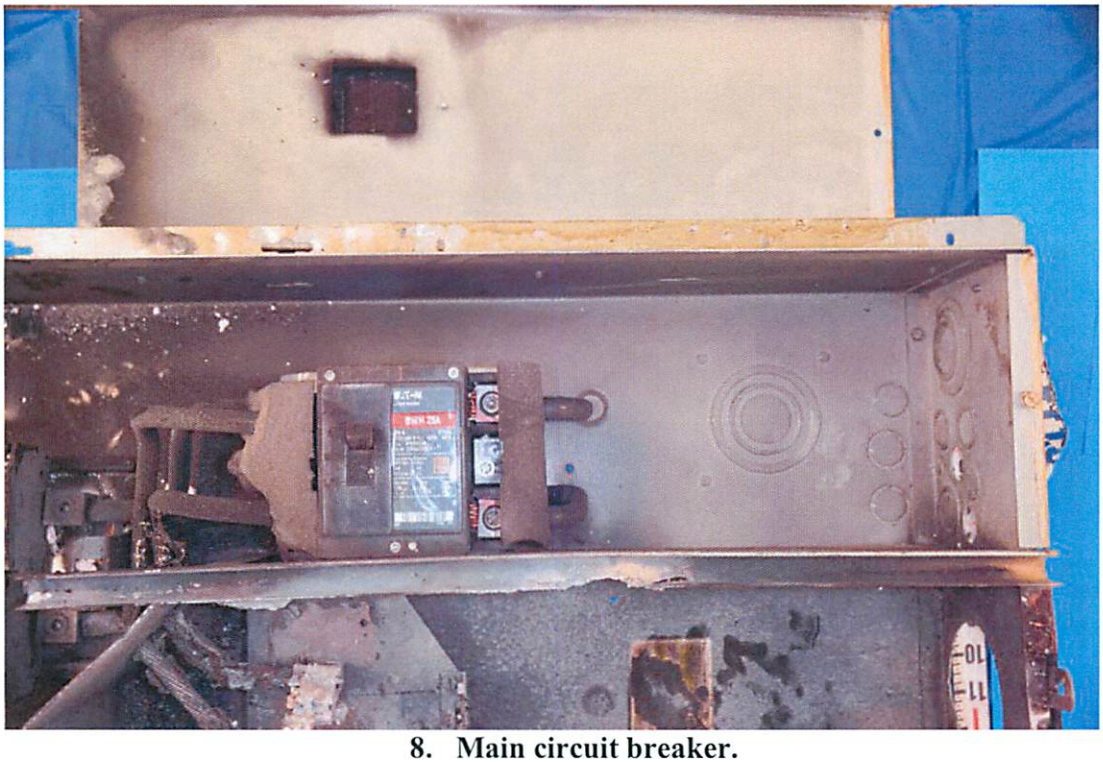
5. Utility pull section as presented at evidence exam.



6. Branch circuit breakers with cover on.

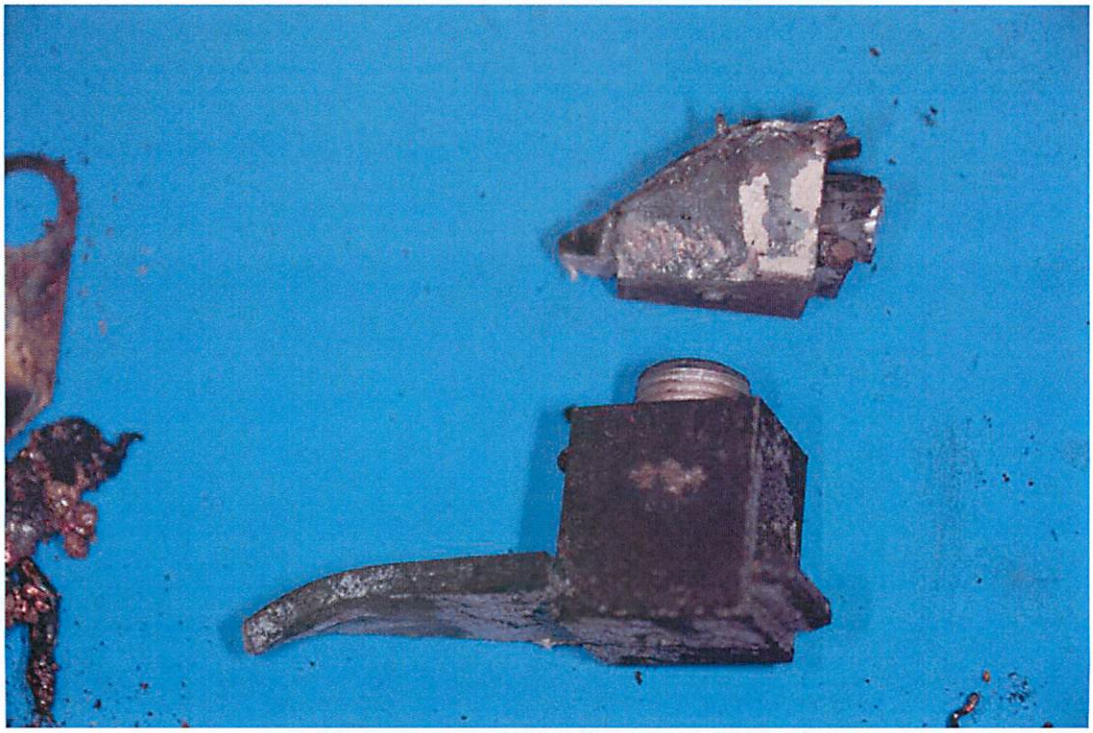


7. Branch circuit breakers and load side buses.



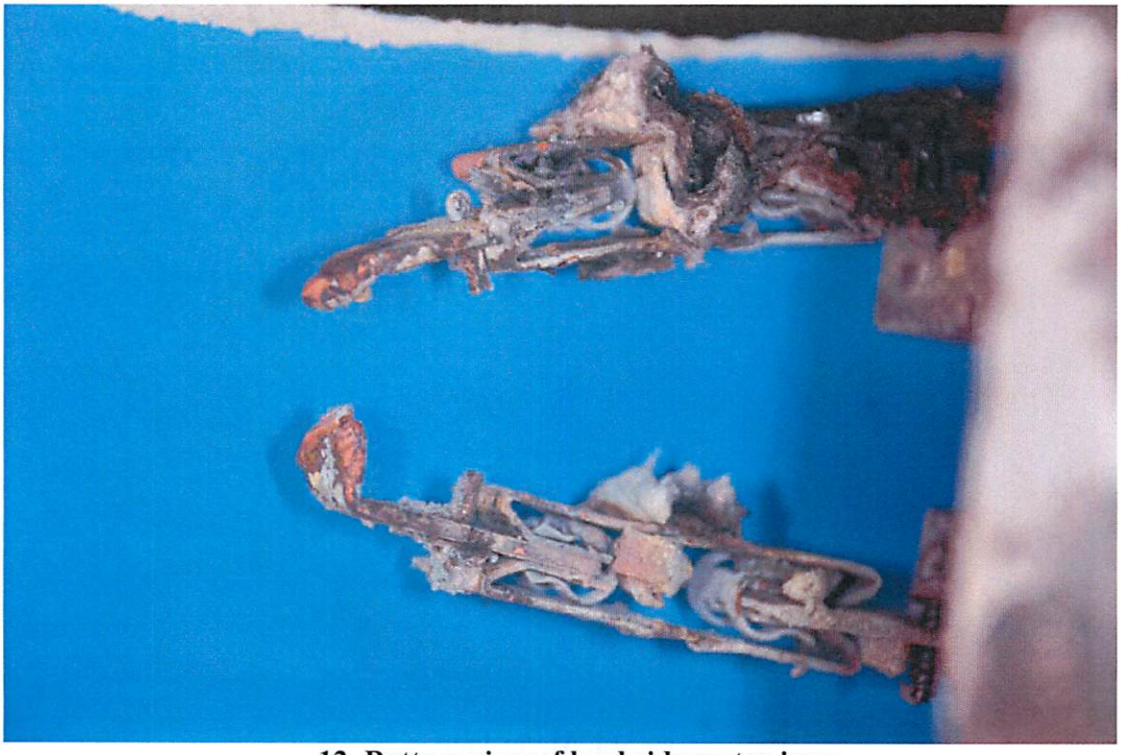
8. Main circuit breaker.

9. Arcing at utility side covers.

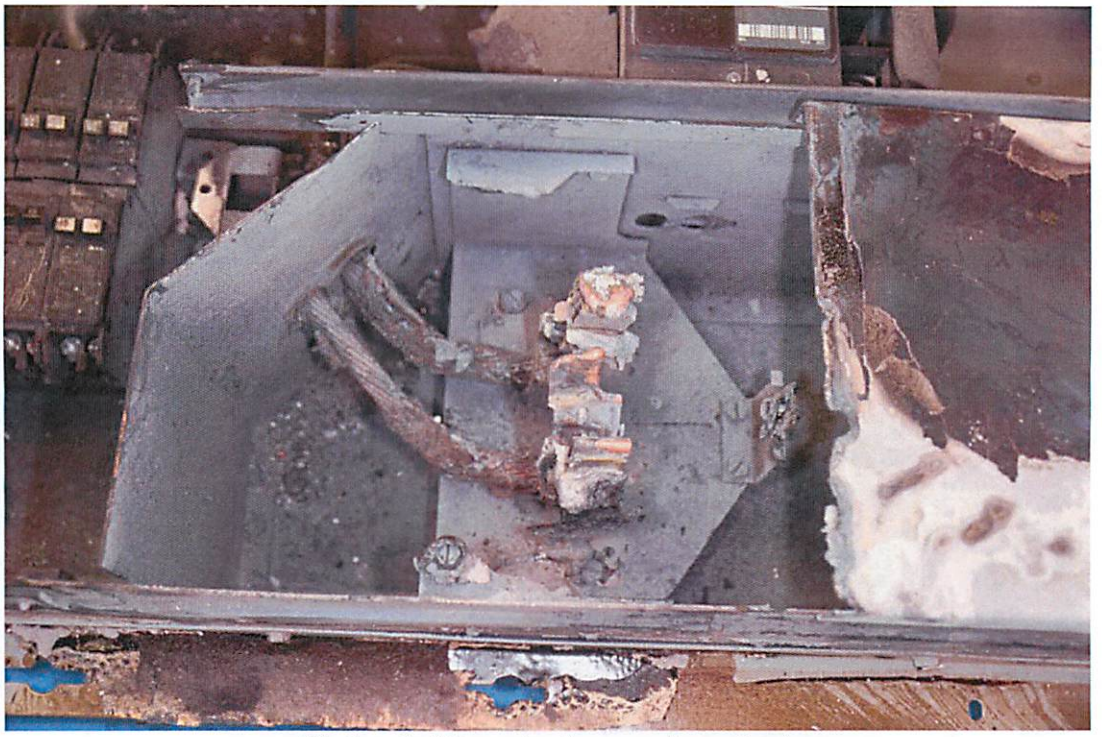


10. Remains of line side lateral terminals.

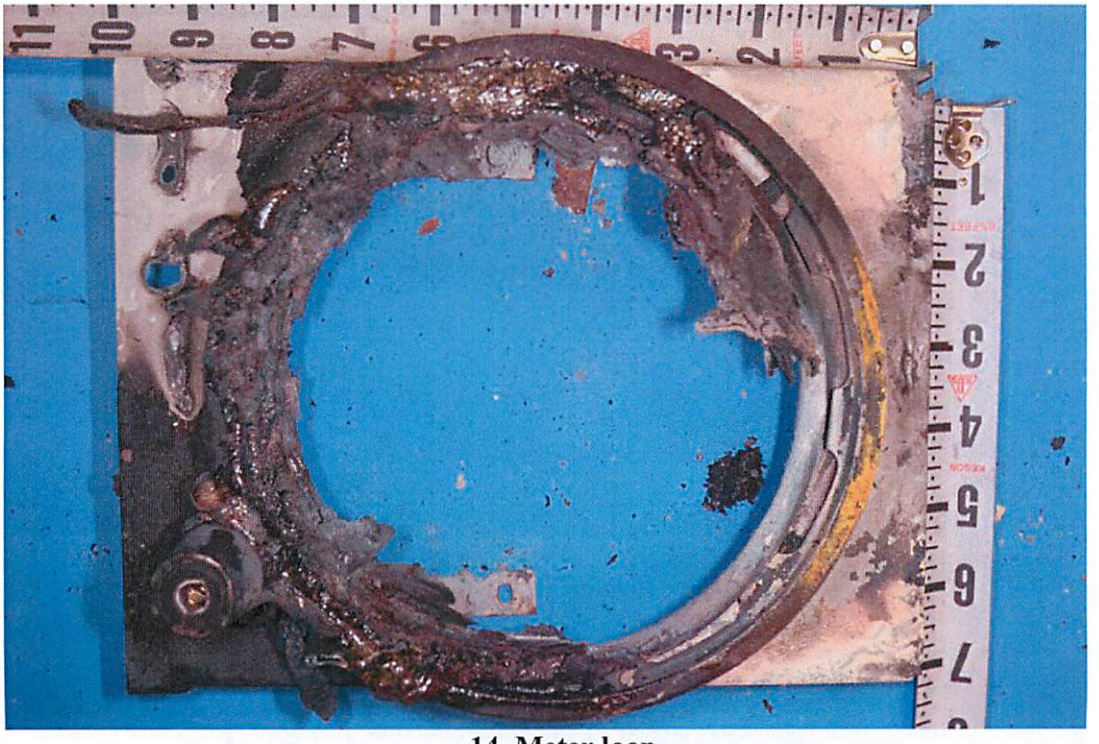
11. Line side lateral terminals placed at approximate original position.



12. Bottom view of load side meter jaws.



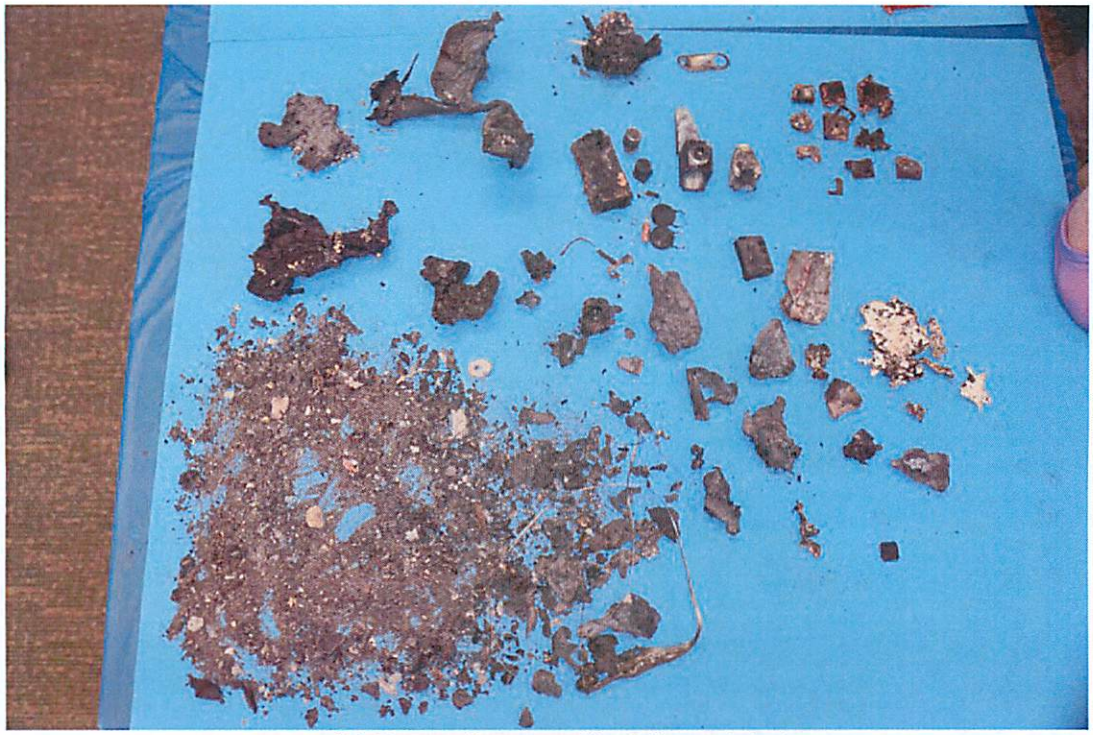
13. Load side meter jaws and conductors.



14. Meter loop.

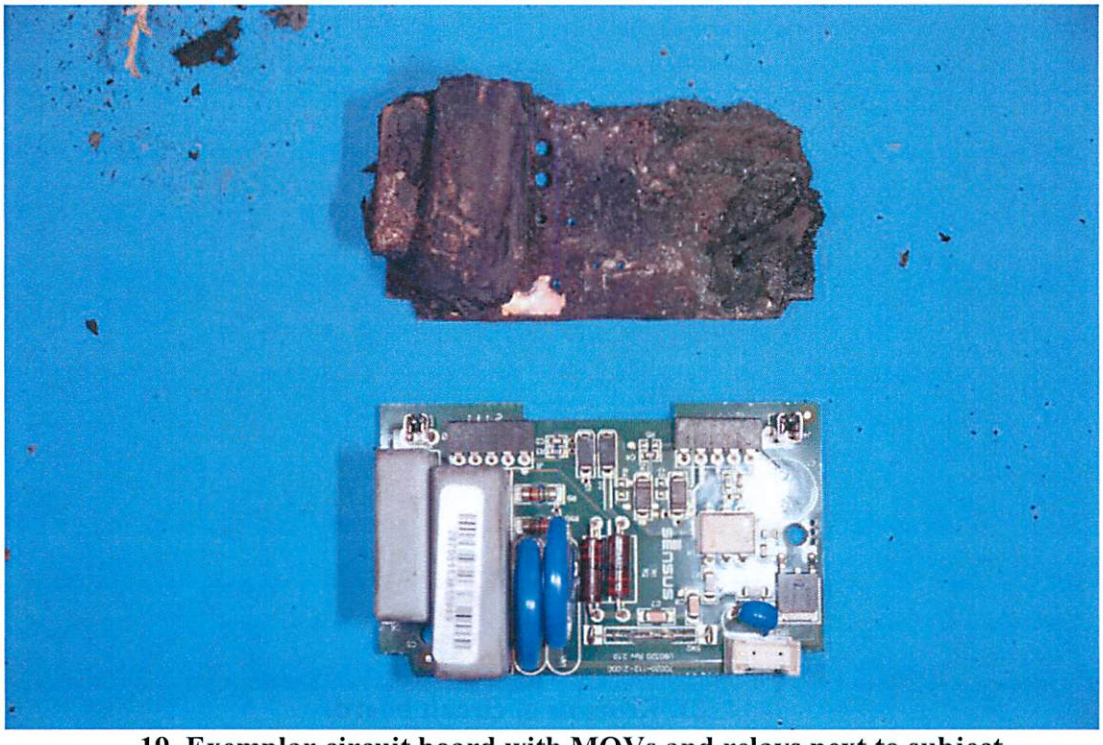
15. Remains of line side meter jaws and spring clips.

16. Side view of line side meter jaws and clips.

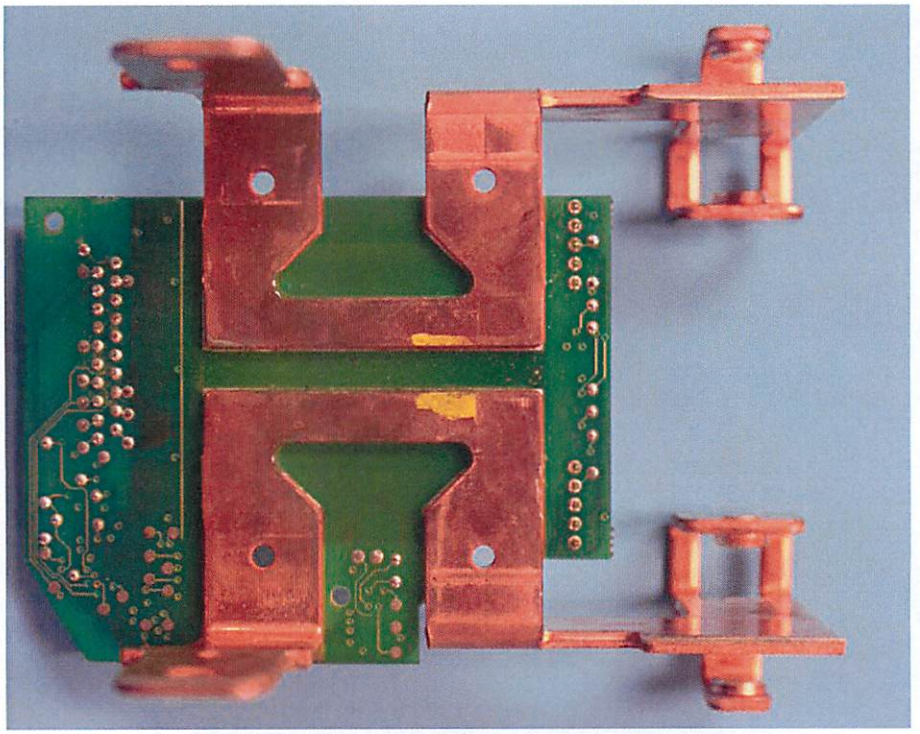


17. Parts of meter sifted from debris.

18. MOVs, capacitors, circuit board etc.

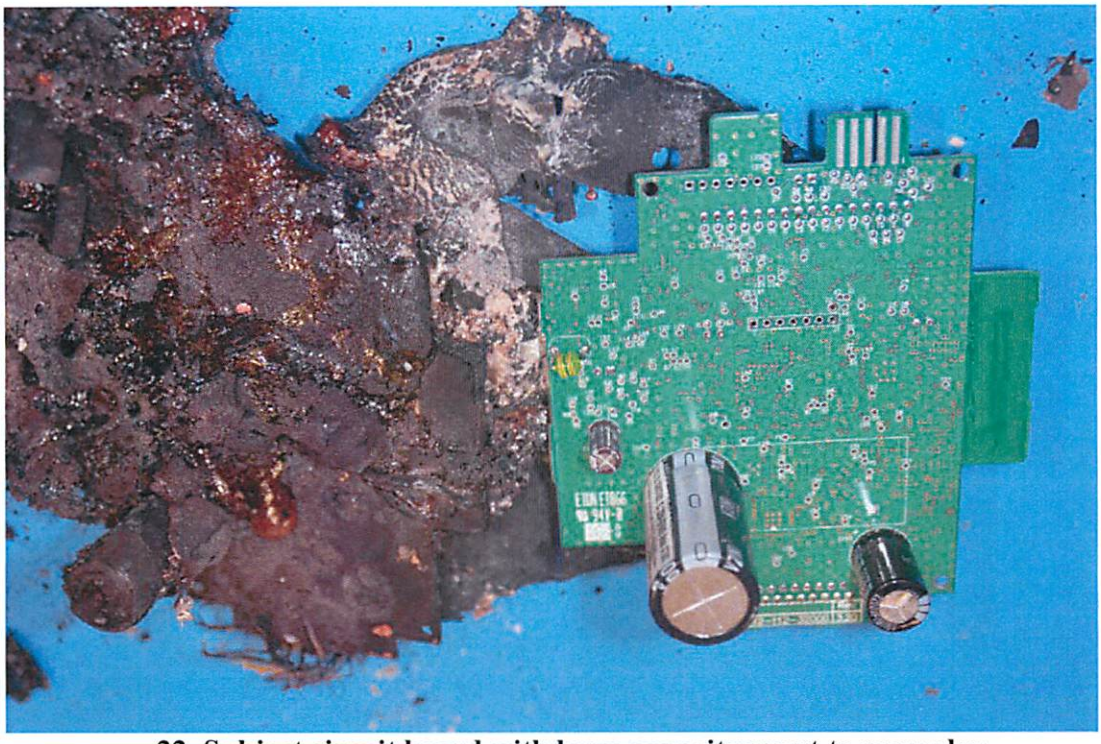


19. Exemplar circuit board with MOVs and relays next to subject.

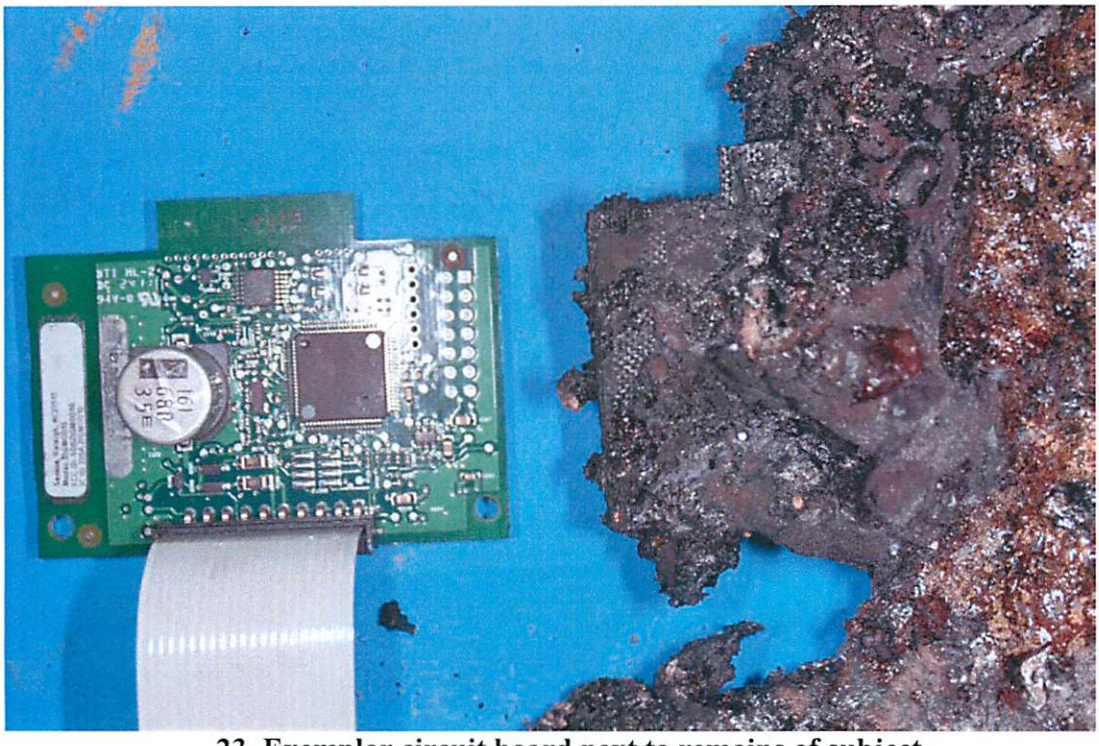


20. Exemplar circuit board with main buses.

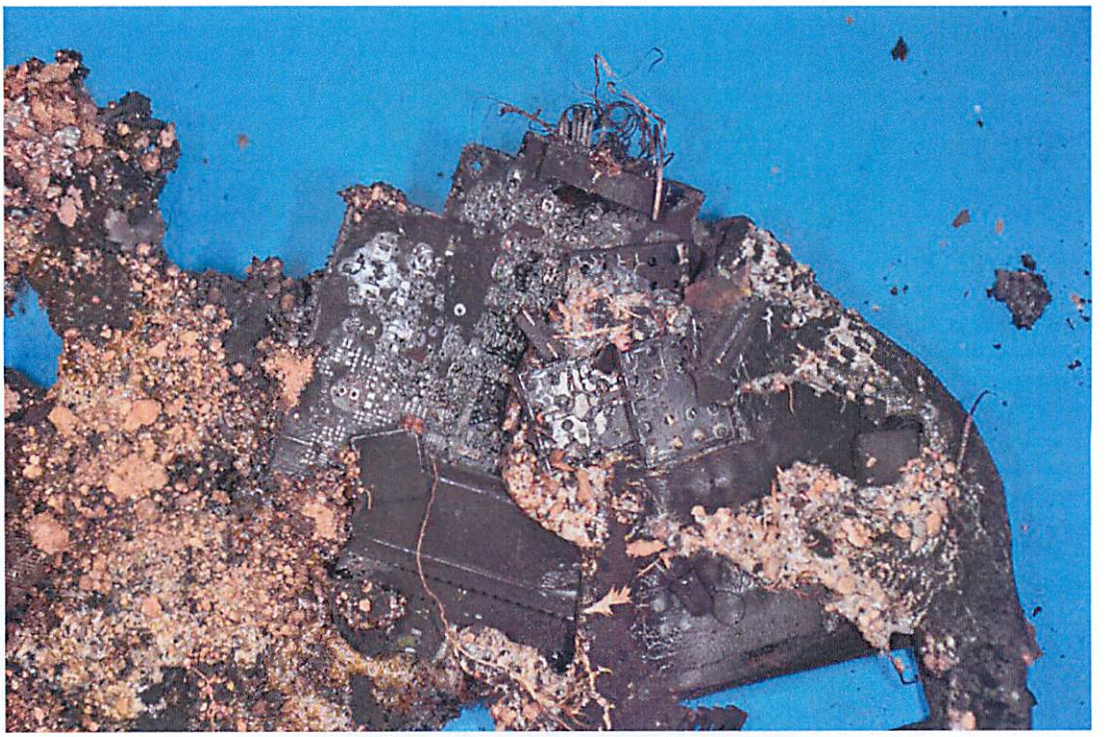
21. Remains of circuit board.



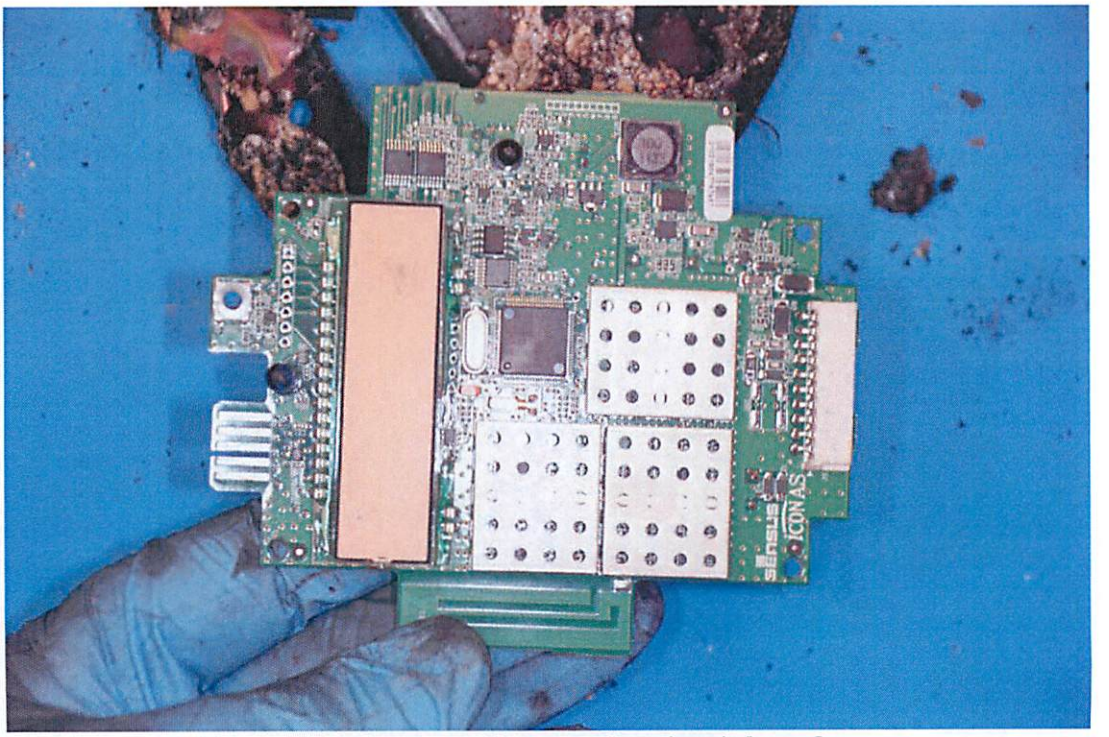
22. Subject circuit board with large capacitor next to exemplar.



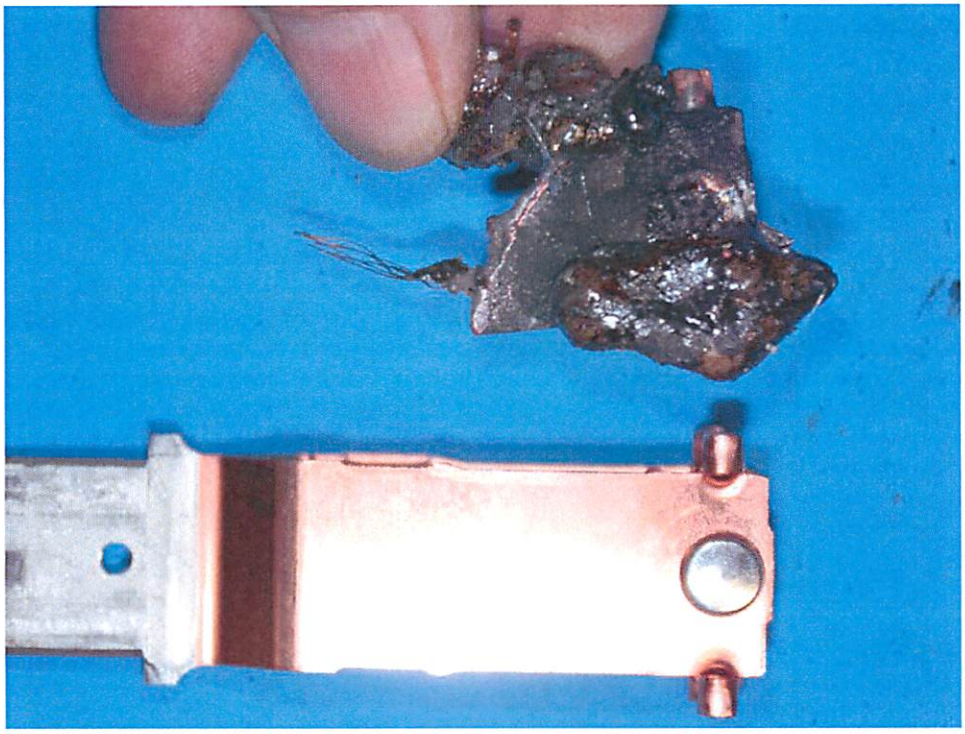
23. Exemplar circuit board next to remains of subject.



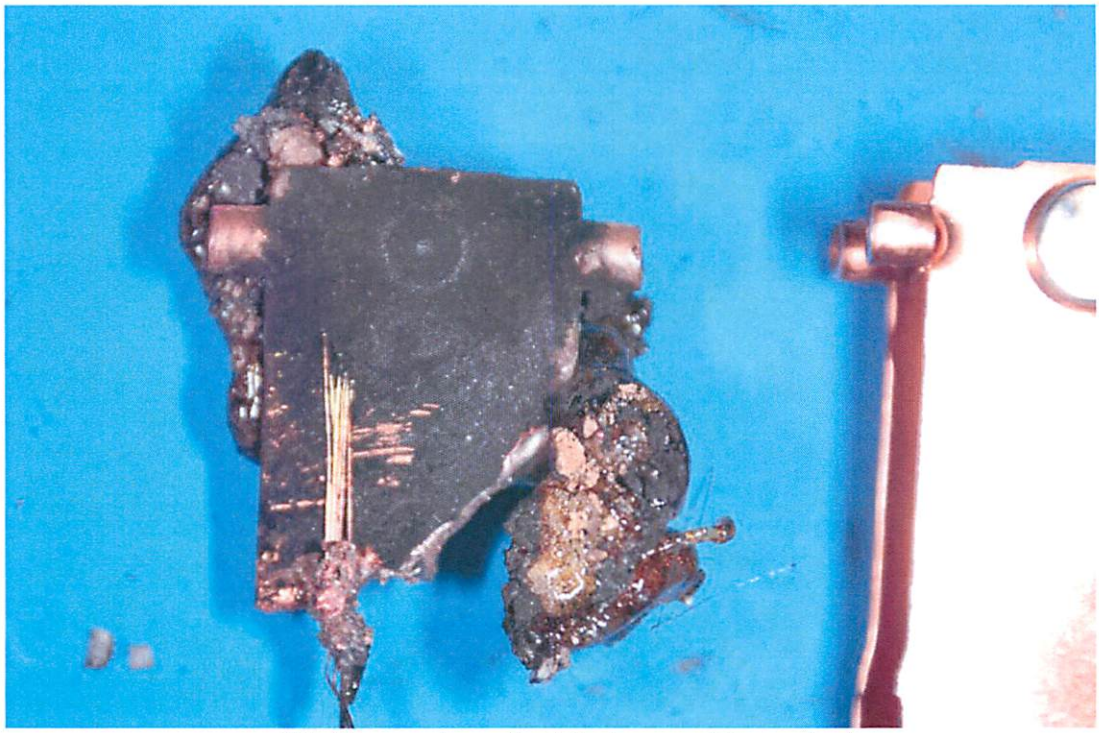
24. Circuit board from subject meter.



25. Comparable exemplar circuit board.



26. Moveable contact assembly from subject next to exemplar.



27. Closer view of subject moveable contact.

ATTACHMENT I

1210 Firefly Court, Reno
May 21, 2014 Incident

Reno Fire Department Report

Incident Report

2014-0014223 -000

Reno Fire Department

Basic	
Alarm Date and Time	10:20:43 Wednesday, May 21, 2014
Arrival Time	10:38:17
Controlled Date and Time	
Last Unit Cleared Date and Time	10:51:45 Wednesday, May 21, 2014
Response Time	0:17:34
Priority Response	Yes
Completed	Yes
Fire Department Station	19
Shift	C
Incident Type	111 - Building fire
Initial Dispatch Code	STRU1
Aid Given or Received	N - None
Action Taken 1	87 - Investigate fire out on arrival
Casualties	No
Apparatus - Suppression	1
Personnel - Suppression Personnel	4
Property Loss	$0.00
Contents Loss	$0.00
Detector Alerted occupants	2
Property Use	419 - 1 or 2 family dwelling
Location Type	Address
Address	1210 FIREFLY CT
City, State Zip	Reno, NV 89523
District	1902
Directions	1210 FIREFLY CT
Latitude	39.521532
Longitude	-119.941213
Map Page	ED10SE

Fire	
Structure Type	1 - Enclosed building
Number of Residential	1
Area of Origin	63 - Switchgear area, transformer vault
Heat Source	13 - Arcing
Item First Ignited	81 - Electrical wire, cable insulation
Cause of Ignition	3 - Failure of equipment or heat source
Contribution To Ignition 1	34 - Unspecified short-circuit arc
Equipment Type	213 - Electric meter, meter box
Equipment Power	11 - Electrical line voltage (>= 50 volts)
Equipment Portability	2 - Stationary

Structure	
Status	2 - In normal use
Floor of Origin	1
Stories Above Grade	1
Total Square Feet	2500
Fire Spread	2 - Confined to room of origin
No Flame Spread	1

Structure	
Detector Presence	2
AES Presence	3

Apparatus - E11	
Apparatus ID	E11
Response Time	0:13:33
Apparatus Dispatch Date and Time	10:24:44 Wednesday, May 21, 2014
En route to scene date and time	10:26:13 Wednesday, May 21, 2014
Apparatus Arrival Date and Time	10:38:17 Wednesday, May 21, 2014
Apparatus Clear Date and Time	10:51:45 Wednesday, May 21, 2014
Apparatus priority response	Yes
Number of People	4
Apparatus Use	1
Apparatus Type	11 - Engine
Personnel 1	4132 - DIANI, Thomas J Position: CAPT
Personnel 2	4584 - OCONNELL, Thomas D Position: FF
Personnel 3	8343 - REITZ, Arthur Position: FF
Personnel 4	10941 - ENGLAND, Benjamin Position: FF

Authority	
Reported By	4132 - DIANI, Thomas J 16:14:18 Wednesday, May 21, 2014
Officer In Charge	-,
Reviewer	-,

Narratives	
Narrative Name	New Narrative
Narrative Type	Incident
Narrative Date	16:12:34 Wednesday, May 21, 2014
Author	4132 - DIANI, Thomas J
Author Rank	CAPT
Author Assignment	1
Narrative Text	Found residential electrical service fire, at service entrance to house. Fire had burned itself out prior to our arrival. Power company on scene prior to our arrival. Fire appeared to start at meter and was confined to electrical box.

End of Report

ATTACHMENT J

160 Arletta Street, Reno
June 11, 2014 Incident

Reno Fire Department Report

Incident Report

2014-0016019 -000

Reno Fire Department

Basic	
Alarm Date and Time	08:09:41 Wednesday, June 11, 2014
Arrival Time	08:15:25
Controlled Date and Time	
Last Unit Cleared Date and Time	08:46:05 Wednesday, June 11, 2014
Response Time	0:05:44
Priority Response	Yes
Completed	Yes
Fire Department Station	04
Shift	B
Incident Type	445 - Arcing, shorted electrical equipment
Initial Dispatch Code	ELECT
Aid Given or Received	N - None
Action Taken 1	50 - Fires, rescues & hazardous conditions, other
Casualties	No
Apparatus - Suppression	1
Personnel - Suppression Personnel	4
Property Use	429 - Multifamily dwellings
Location Type	Address
Address	160 ARLETTA ST
City, State Zip	Reno, NV 89501
Apartment Number	b
District	04
Directions	128 ARLETTA ST
Latitude	39.523505
Longitude	-119.827960
Map Page	EE10SE

Person Involved - potts, David	
Occupies Property	Yes
Last Name	potts
First Name	David
Street Address	160 ARLETTA ST
Apartment	b
City, State Zip	Reno, NV 89501
Phone	7752877805

Apparatus - E1	
Apparatus ID	E1
Response Time	0:05:05
Apparatus Dispatch Date and Time	08:10:20 Wednesday, June 11, 2014
En route to scene date and time	08:12:07 Wednesday, June 11, 2014
Apparatus Arrival Date and Time	08:15:25 Wednesday, June 11, 2014
Apparatus Clear Date and Time	08:46:05 Wednesday, June 11, 2014
Apparatus priority response	Yes
Number of People	4
Apparatus Use	1
Apparatus Type	11 - Engine
Personnel 1	7642 - HILL, Michael

Apparatus - E1	
	Position: ACO
Personnel 2	9435 - BRIANT, Peter
	Position: FF
Personnel 3	9415 - GARMAN, Greg
	Position: FF
Personnel 4	5054 - RUTHERFORD, David R
	Position: FEO

Authority	
Reported By	7642 - HILL, Michael
	07:08:31 Friday, June 13, 2014
Officer In Charge	7642 - HILL, Michael
	13:14:02 Wednesday, June 25, 2014
Reviewer	- ,

Narratives	
Narrative Name	E1
Narrative Type	Incident
Narrative Date	18:45:42 Wednesday, June 11, 2014
Author	7642 - HILL, Michael
Author Rank	ACO
Author Assignment	1
Narrative Text	E1 arrived on scene of a sparking/arcing/flaming smartmeter on the side of the building. E1 used a CO2 extinguisher to extinguish the flames. The FF's checked for extension into the building. No extension was found. The fire was contained to the one meter. An adjacent meter showed signs of impingement from the adjacent burning meter. No other significant fire damage was noted. E1 notified the tenants of the situation. The investigator and power company were notified through dispatch. E1 stayed on scene until it could be turned over to the investigator, and power secured by the Power company. The scene was left with Investigator O'niel. E1 returned to station. AC Hill #7642
Narrative Name	Inspector 7
Narrative Type	Incident
Narrative Date	13:49:43 Thursday, June 12, 2014
Author	6466 - PALMER, Tray L
Author Rank	FPC
Author Assignment	3
Narrative Text	I, Tray PALMER, Fire Investigator for the Reno Fire Department, was dispatched to the above scene. I reported to Incident Command. Acting Captain HILL said that they arrived on scene and saw the electrical meter sparking and arcing. Firefighters extinguished the fire. Fire Investigator Jason O'NEAL also responded.

Narratives

Area of Origin:

I examined the scene. The fire occurred to a multifamily structure. The electrical meter on the east exterior side of the building was heavily charred. The meter that supplied unit # B showed heavy charring. The plastic bulb of the meter melted completely away exposing the charred metal components inside. The meter next to this one supplying unit number A was also damaged, with heavier charring facing meter B. This burn pattern also indicated that the fire encroached from meter B.

Interview:

I interviewed the occupant of unit B, David POTTS. POTTS said that his power had been turned off Friday or Saturday. He paid the bill and called prior to the fire to have the electric turned back on. He was not aware if NV energy had attempted to turn the power back on or not. He stated when he called NV energy they told him they did not attempt to turn it back on prior to the fire.

Due to the fact that this was at least the 3rd "Smart Meter" fire the Reno Fire Department has responded to, and knowing Sparks Fire Department has also responded to several "Smart Meter" fires, I made the decision to collect the meter for 3rd party testing. Investigator Jason O'NEAL stayed on scene to supervise the collection of the meter.

Jason O'NEAL reported the following:

"At approximately 8:30 am on Wednesday, June 11, 2014, I, Jason O'NEAL, fire investigator, was requested by Captain Tray PALMER, fire investigator, to respond to 160 Arletta Street to assist with a fire investigation.

Upon arrival I met with Captain PALMER. PALMER showed me two fire damaged electrical panels and electrical meters on the east side of the five unit apartment building. As the electrical meter for apartment B was clearly the most heavily fire damaged item in the fire area, we concluded the fire may have been caused by the electrical meter. PALMER instructed me to remain on scene until the meter and the electrical panel it was attached to were removed to secure them for potential examination and testing.

Fire Investigator Jennifer DONOHUE subsequently responded as well to assist with control of the scene and chain of custody over the electrical meter and panel.
Curt ACTIS, Senior Claims Investigator with NV Energy subsequently arrived at the scene. ACTIS wanted to collect the electrical meter, as it was the property of NV Energy. I advised ACTIS the Reno Fire Department, being the authority having jurisdiction, had the authority to collect the electrical meter and electrical panel in order to have them tested and examined as to their potential relationship to the cause of the fire. ACTIS acquiesced and allowed us to collect the items. NV Energy contacted Briggs Electric to remove the panel and a representative from Briggs Electric subsequently responded and removed the panel. Once the electrical panel and meter were removed DONOHUE and I placed them in evidence bags and I transported them to Reno Fire Department Station Three where I secured them in a locked room.

Narratives

While I was on scene at 160 Arletta Street the owner of the property said the occupant of apartment B had his power turned off by NV Energy prior to the incident for failure to pay his power bill. The owner said after the bill was paid the meter was switched back on around 8:00 am that morning which is about when the fire occurred."

Conclusion:

This fire started inside the electric "Smart" meter. Due to multiple fires in this area involving "Smart Meters", the meter was collected and will be sent to 3rd party for testing. At this time it appears most probable that the fire started from a malfunctioning part or connection within the smart meter itself.

This investigation is on-going.

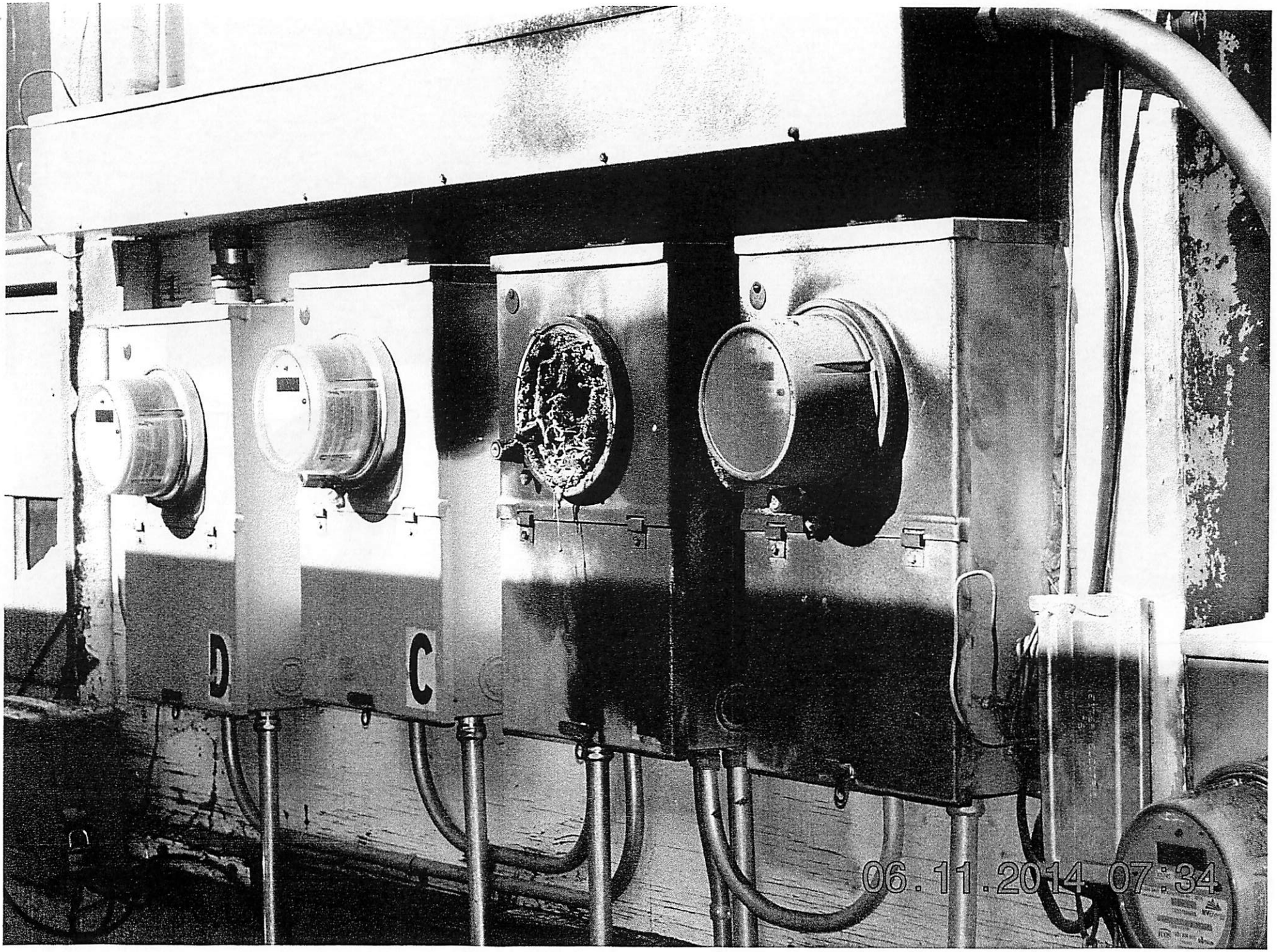
Narrative Name	Inspector 1 Suppleme
Narrative Type	Incident
Narrative Date	13:31:15 Friday, September 12, 2014
Author	6466 - PALMER, Tray L
Author Rank	FPC
Author Assignment	3
Narrative Text	On 8/27/14, the meter collected from the above incident was evaluated by Oracle Forensics electrical engineer Andrew THORESEN. See attached report.

Final Conclusion:

It was the expert opinion found in this evaluation by Andrew THORESEN that arcing was found in abundance within the meter and meter socket-enclosure, suggesting that the meter failed in some fashion, resulting in the ignition of the fire.

End of Report

06.11.2014 07:34


D
C
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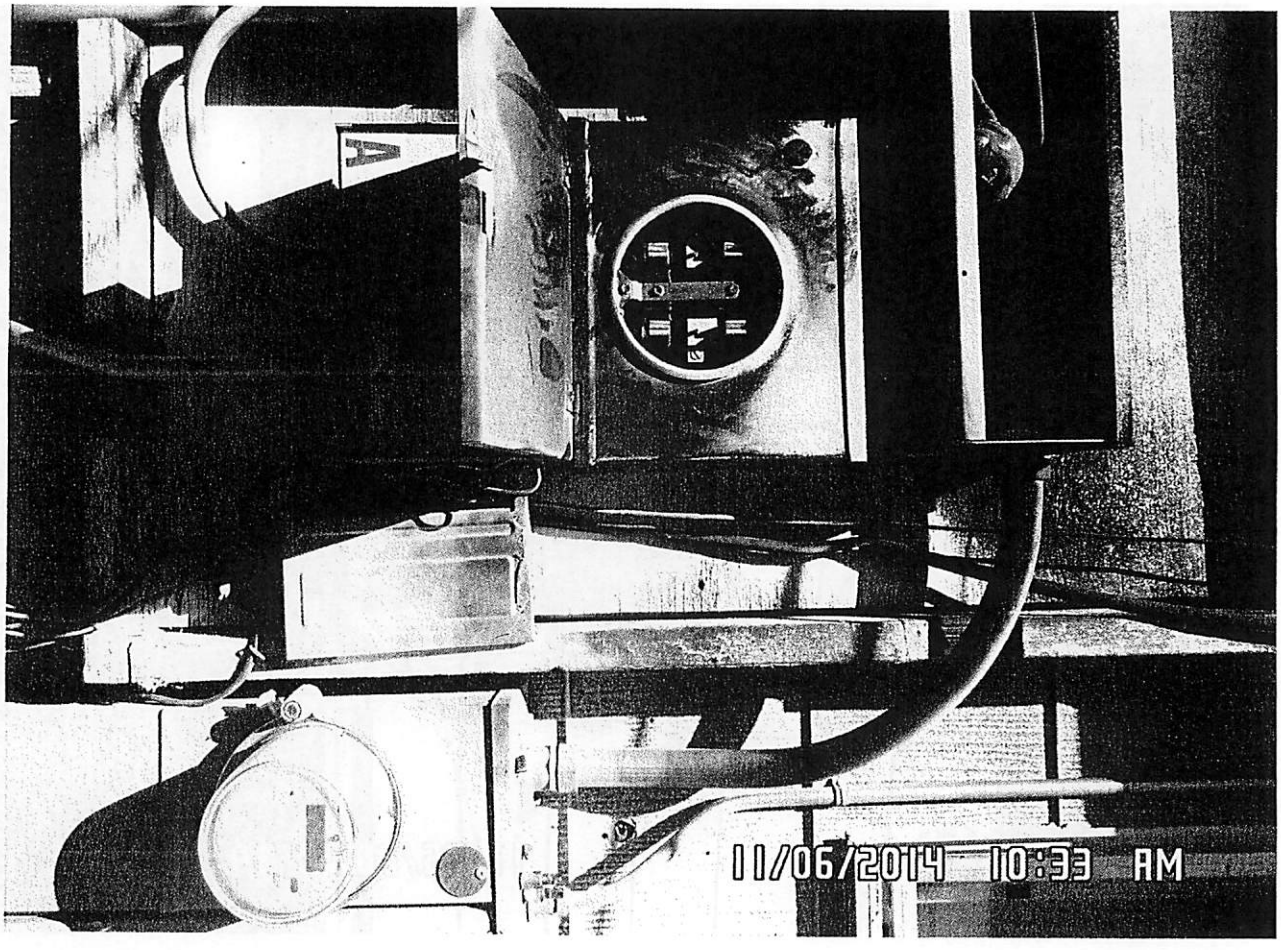
11/06/2014 10:33 AM

11/06/2014 10:33 AM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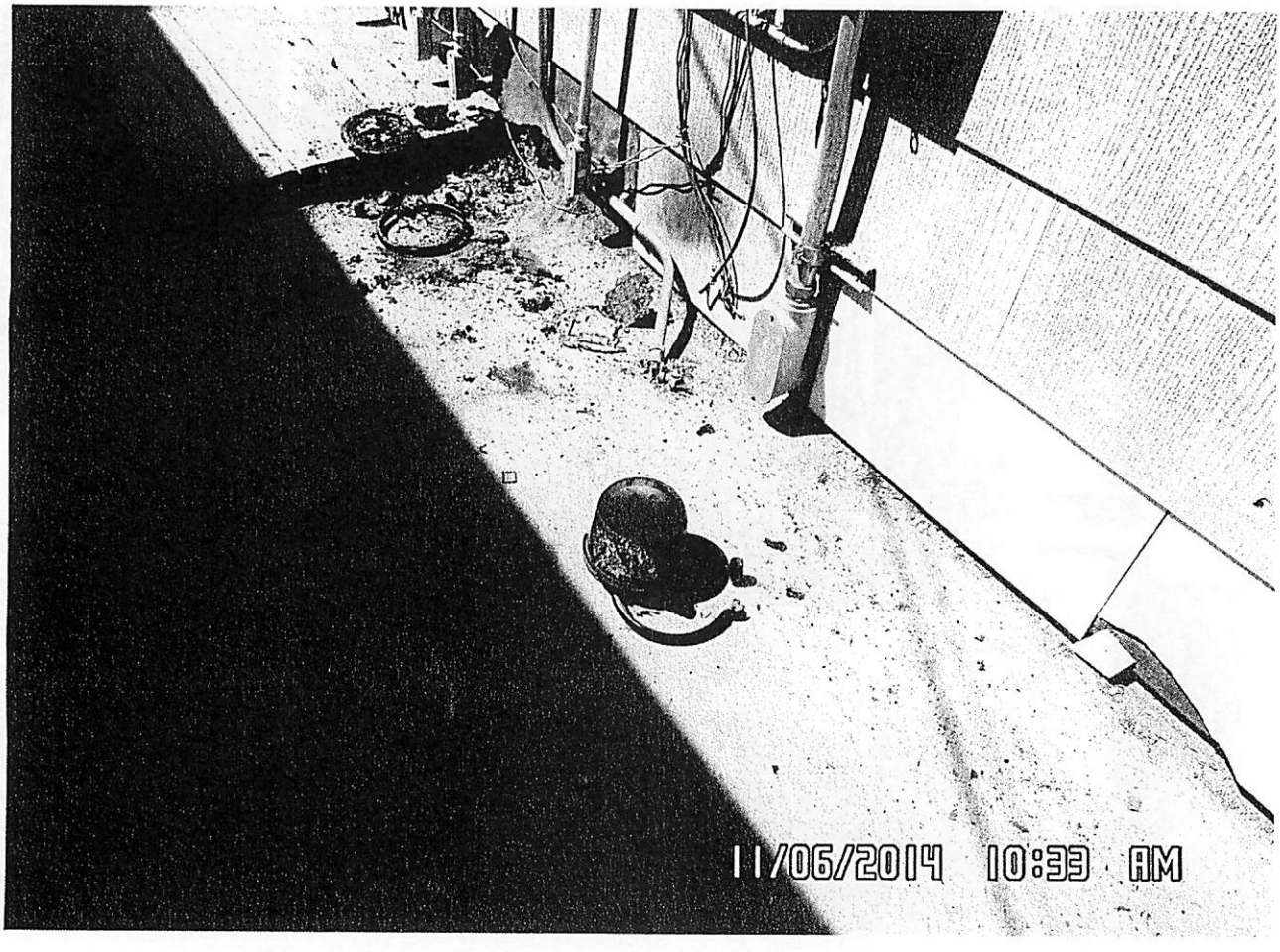
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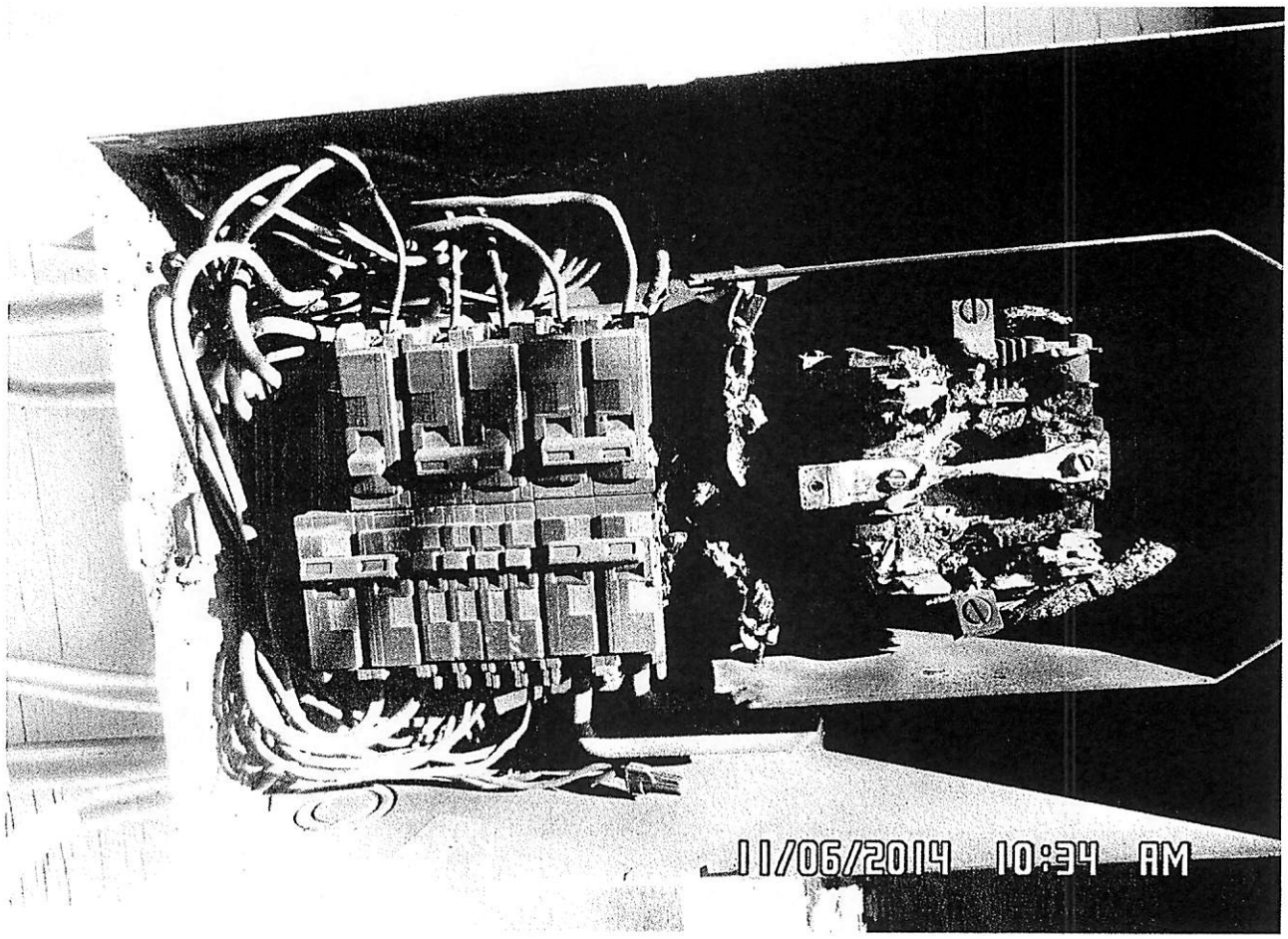
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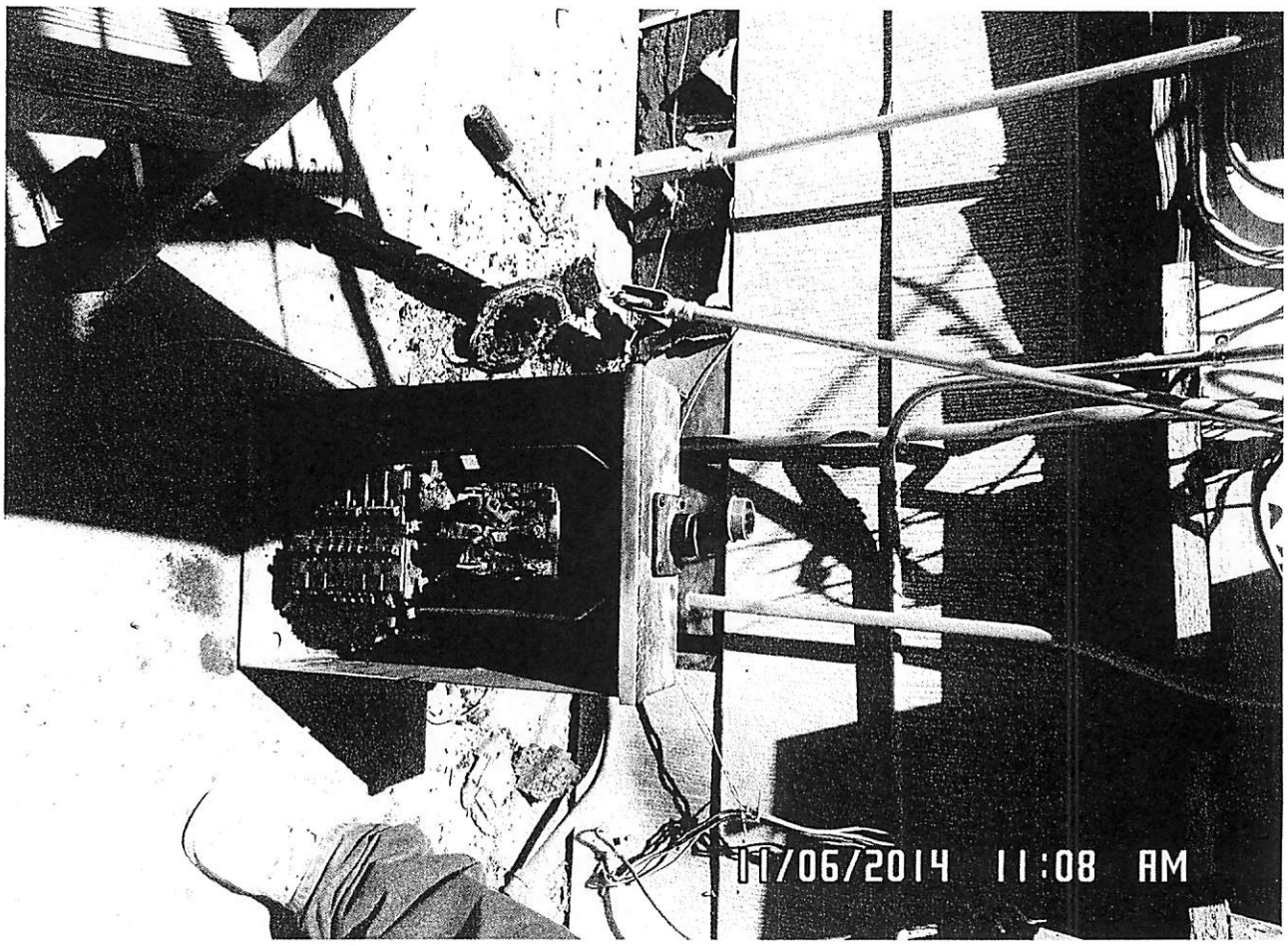
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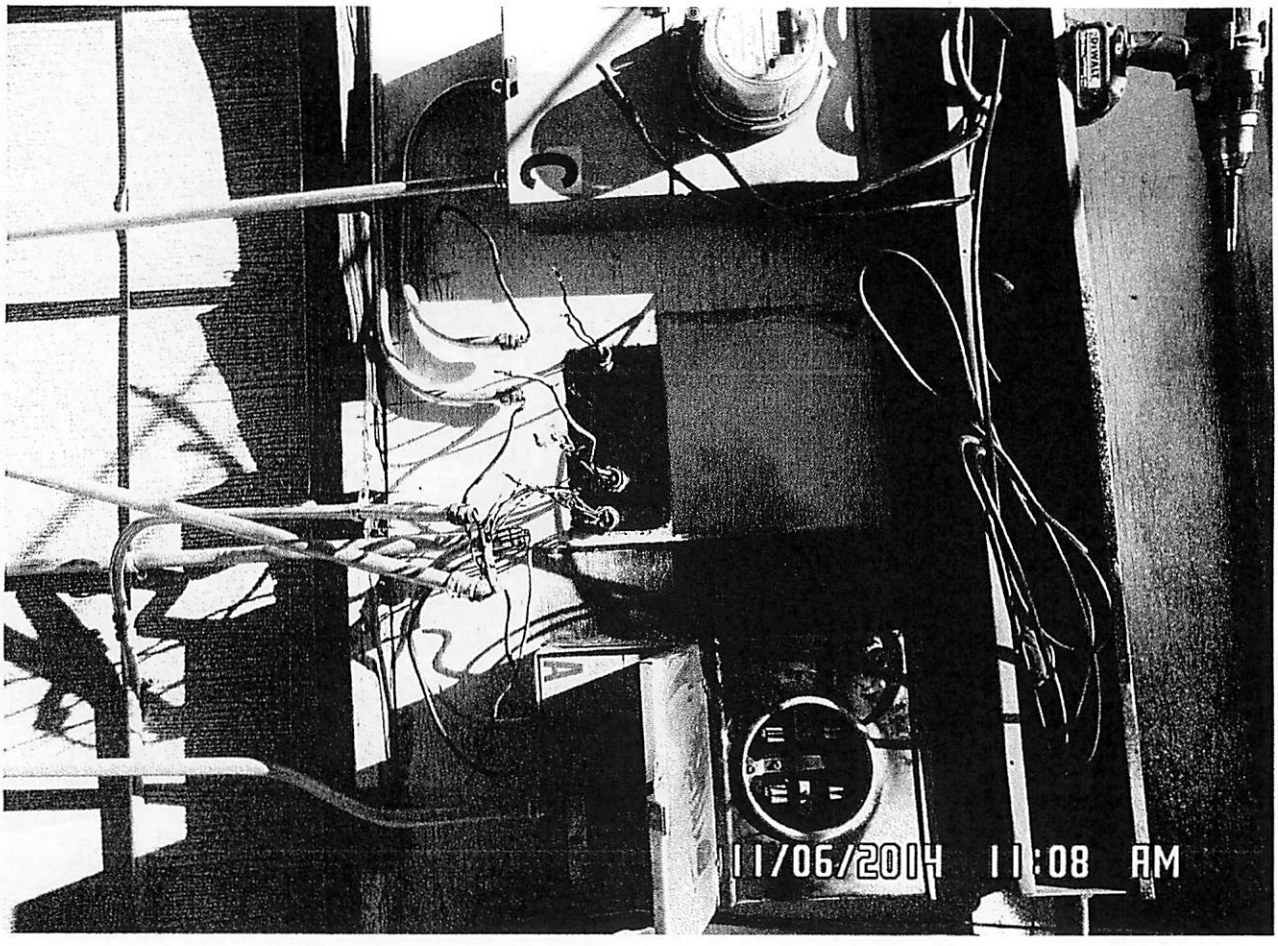

11/06/2014 11:08 AM

11/06/2014 11:09 AM

11/06/2014 10:33 AM

11/06/2014 11:09 AM

11/06/2014 10:33 AM

ATTACHMENT K

4742 El Cap Court, Sparks
June 12, 2014 Incident

Sparks Fire Department Report

Peter Mulvihill

From: King, Bob <bking@cityofsparks.us>
Sent: Wednesday, October 29, 2014 9:36 AM
To: Peter Mulvihill
Cc: Garrison, Tom; Thornley, Doug
Subject: Sparks Fire Department Fire Investigation Files
Attachments: 6 E. H Street.pdf; 200 E. Lincoln Way.pdf; 1521 G ST.pdf; 4742 El Cap Ct..pdf; 7255 Windswept Loop.pdf

Chief Mulvihill,

Here are the redacted fire investigation files. The only items redacted were names, phone numbers, and SSAN's. Please discard the previous files and replace with these.

Thanks again for your patience with us during this process.

Don't hesitate to call me if you have any questions.

Sincerely,

Bob King, EFO
DC/Fire Marshal
1605 Victorian Ave.
Sparks, NV 89431
O- 353-2261
C – 527-3712
F – 353-2396

From: Feldman, Rick
Sent: Wednesday, October 29, 2014 9:27 AM
To: King, Bob
Subject: smart meter

SPARKS FIRE DEPARTMENT

FIRE INVESTIGATION REPORT

4742 El Cap Ct.

1404399

6/12/2014

Notification & Fire Synopsis:

I was dispatched by Assistant Fire Marshal McCubbins at 4:15 PM to 4742 El Cap Ct. to investigate a structure fire at a single family residence. I arrived on scene at 4:35 PM The structure was occupied at the time of the fire. The fire was discovered and reported by the owner of the home. The fire was contained to the electrical smart meter panel on the exterior of the structure. The weather was not a factor in this fire

Structure / Vehicle Information:

The structure involved is a 1440 square foot single family residence. The structure is of ordinary wood construction. The garage is attached to the front right side of the structure and is separated by 5/8 inch drywall on the interior. The area involved is the smart meter and electrical panel on the exterior garage wall. The electrical panel is surfaced mounted to the wall and accessed from the exterior of the garage The smart meter is a Sensus icon type isa3 and is owned by NV Energy. The electrical panel and all the components on the load side are owned by the home owners. The homeowners insurance is Safeco Insurance Co. [redacted], policy number [redacted]. The home is occupied by Orley and Constance Donica.

Interviews:

Captain Warner was on Ladder 41, the first in Engine Company. He completed his scene size up of the structure and found no fire other than from the smart meter panel. Warner stated the smart meter panel was still energized and that NV Energy was contacted to disconnect the power to the smart meter panel.

I interviewed the home owner [redacted]. He stated that the wind blew the garage man door shut and he heard a noise. He went outside to check and found the meter on fire. He then called 911.

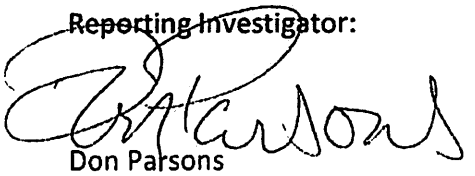
Scene Investigation:

I started my investigation by interviewing the fire crew, and home owner. I inspected the electrical panel on the garage wall and confirmed the smart meter panel to be the area of origin. I photographed the electrical panel, the garage interior and the exterior stucco wall of the garage. The fires point of origin started at the smart meter side of the panel and the fire damage continued in a v pattern up to the eves of the house. Blue and black soot extended from the panel to the wall of the garage. The smart meter ring was intact and had melted plastics and metals attached to it. The line side meter blades were still in place in the electrical panel. The load side blades were missing. The panel doors were placed on the ground below the panel. The line side of the panel had smoke/ heat damage to the mounting area of the smart meter. I inspected the smart meter remains and the service side of the smart meter panel. The smart meter had melted and fallen off the panel onto the ground below. The remains were charred and stuck together from heat fussing of the plastic and metal components of the meter. The remains of the smart meter were collected into a steel evidence can and card board box then sealed and tape. The outer panel doors were collected and placed into a paper bag. The service side wire lugs were removed and I collected them as evidence. The load side of the panel had no damage and all the breakers were intact. I inspected the electrical wires on the load side of the panel and found no signs of arching. No other fire sources were found. The electrical panel was removed by Briggs Electric and replaced with a new panel and all the wiring and breakers were reconnected to the residence. I collected the components and logged it into evidence at Sparks Police Department. (See evidence records). My investigation included the assistance of Assistant Fire Marshal Chris McCubbins, and Sparks Fire Inspector Major Herrick.

Opinion & Conclusion:

The area of origin for the fire is the exterior garage wall. The point of origin is inside the electrical panel between the electrical service side of the smart meter and the load side of the panel. The cause is the electrical components of the smart meter failing and arching resulting in a fire/explosion of the smart meter.

Reporting Investigator:



Don Parsons

Sparks Fire Investigator

CHAIN OF CUSTODY
SPARKS POLICE DEPARTMENT
PROPERTY & EVIDENCE

CASE #	
EVIDENCE USE ONLY	

BAR CODE	
5038079	

DATE OBTAINED	TIME OBTAINED	OFFENSE(S)

NAME OF RIGHTFUL OWNER(S)

ADDRESS	PHONE
474 E	

LOCATION WHERE FOUND OR FROM WHOM OBTAINED

LOCKER NO.	OFFICER'S NAME (LAST, FIRST)	SPECIAL NOTATIONS:

ITEM #	QUANTITY	DESCRIPTION OF PROPERTY	TYPE	DISPO
1				

SIGNATURES	I.D. #	DATE	EVIDENCE USE ONLY
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			

SIGNATURES	I.D. #	DATE	EVIDENCE USE ONLY
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			
RECEIVED BY			

TYPE:
- C - CONFISCATED
- E - EVIDENCE
- F - FOUND
- SK - SAFEKEEPING

DISPOSITION:
- 0 - HOLD
- 1 - RELEASE TO OWNER
- 2 - HOLD FOR FORFEITURE
- 3 - RELEASE TO DMV
- 4 - RELEASE TO OTHER (SPECIFY IN "NOTATIONS")
- 6 - DESTROY

ORIGINAL: EVIDENCE • COPY: RECORDS

WITNESS STATEMENT
FIELD NOTES 906-6

AGENCY	FILE NUMBER

IDENTIFICATION

NAME				ADDRESS	PHONE NO.
[redacted]				4742 El Cap Ct.	[redacted]
RACE	**SEX**	**AGE**	**DATE OF BIRTH**	**SOC. SECURITY NO.**	**DRIVER'S LIC. NO.**
	M	77	[redacted]	[redacted]	[redacted]
EMPLOYER				**ADDRESS**	**PHONE NO.**
~~[redacted]~~ retired					

RELATIONSHIP TO INCIDENT	CAN BE CONTACTED AT
STATEMENT TAKEN BY	**LOCATION, DATE & TIME OF STATEMENT**

STATEMENT

Wind blew garage door shut violently - I checked outside saw fuse box on fire - Called Fire dept.

STRUCTURE FIRE
FIELD NOTES 906-2a

AGENCY	FILE NUMBER

TYPE AND STATUS

PROPERTY USE: Residence

STATUS (OCCUPIED, UNOCCUPIED, VACANT): Occupied

COMMENTS:

AREA DESCRIPTION

☑ RURAL ☐ FARM ☐ URBAN ☐ SUBURBAN ☐ OTHER ____

☐ ZONED ☐ UNZONED ☐ IMPROVING ☐ DECLINING ☐ STABLE ☐ OTHER

CONSTRUCTION

FOUNDATION
☐ SLAB ☑ CRAWL SPACE ☐ BASEMENTS(S) ☐ OTHER ____

DIMINSIONS
____ FT LENGTH ____ FT WIDTH ____ FT HEIGHT 1 STORIES 1 NO. UNITS

TYPE OF CONSTRUCTION	EXTERIOR WALLS	INTERIOR WALLS	FLOORS	ROOF
	2x4	2x4	1	Asphalt

SECURITY (Time of Fire)

DOORS
☑ SECURE ☐ NOT SECURE PER:

WINDOWS
☑ SECURE ☐ NOT SECURE PER:

OTHER
☑ SECURE ☐ NOT SECURE PER:

COMMENTS ON SECURITY

ALARM/PROTECTION SYSTEMS

ALARMS
☐ YES ☑ NO

TYPE ALARM

ALARM COMPANY	CONTACT PERSON	PHONE NO.

COMMENTS

PROTECTION SYSTEMS
☐ YES ☐ NO ☐ OPERATED ☐ DID NOT OPERATE

COMMENTS

DESCRIPTION OF SYSTEMS(S)

UTILITIES (Time of Fire)

			UTILITY COMPANY	CONTACT	PHONE NO.
ELECTRIC	☑ ON	☐ OFF			
GAS	☑ ON	☐ OFF			
WATER	☑ ON	☐ OFF			
PHONE	☑ ON	☐ OFF			
OTHER	☑ ON	☐ OFF			

Figure 2-2.3(a) Structure Fire Field Notes (Form 906-2a, 2b, and 2c).

WITNESS STATEMENT
FIELD NOTES 906-6

AGENCY	FILE NUMBER

IDENTIFICATION

NAME			ADDRESS		PHONE NO.
[redacted]			4742 El Cap Ct.		[redacted]
RACE	SEX	AGE	DATE OF BIRTH	SOC. SECURITY NO.	DRIVER'S LIC. NO.
	F	75	2/7/1939	[redacted]	[redacted]
EMPLOYER			ADDRESS		PHONE NO.
Ret.					
RELATIONSHIP TO INCIDENT			CAN BE CONTACTED AT		
home					
STATEMENT TAKEN BY			LOCATION, DATE & TIME OF STATEMENT		
			4742 El Cap Ct. 6/12/2014 4:15 PM		

STATEMENT

Very windy – Loud clap of (elec.) noise – elec. out – elec. panel (outside) on fire –

PHOTOGRAPHS FIELD NOTES 906-8	ROLL NO.	AGENCY	FILE NUMBER
	N/A	SFD	1404399

*ONLY ONE ROLL OF FILM PER FORM.

NEG. NO.	DESCRIPTION	NEG. NO.	DESCRIPTION
1	Street sign	21	Front of panel w/ meter
2	Address	22	Meter socket
3	Pannel	23	Meter socket
4	Part of meter	24	Meter socket
5	Part of meter	25	Back of meter socket
6	Part of meter	26	Behinde meter socket
7	Breakers	27	Behinde meter socket
8	Breakers	28	
9	Breakers	29	
10	Seal	30	
11	Wires	31	
12	Wires	32	
13	Wires	33	
14	WiresIn to home	34	
15	Lugs from streer	35	
16	Wires from street	36	
17	Back of meter	37	
18	clean evidence can	38	
19	Parts of meter	39	
20	Parts of meter	40	

REMARKS

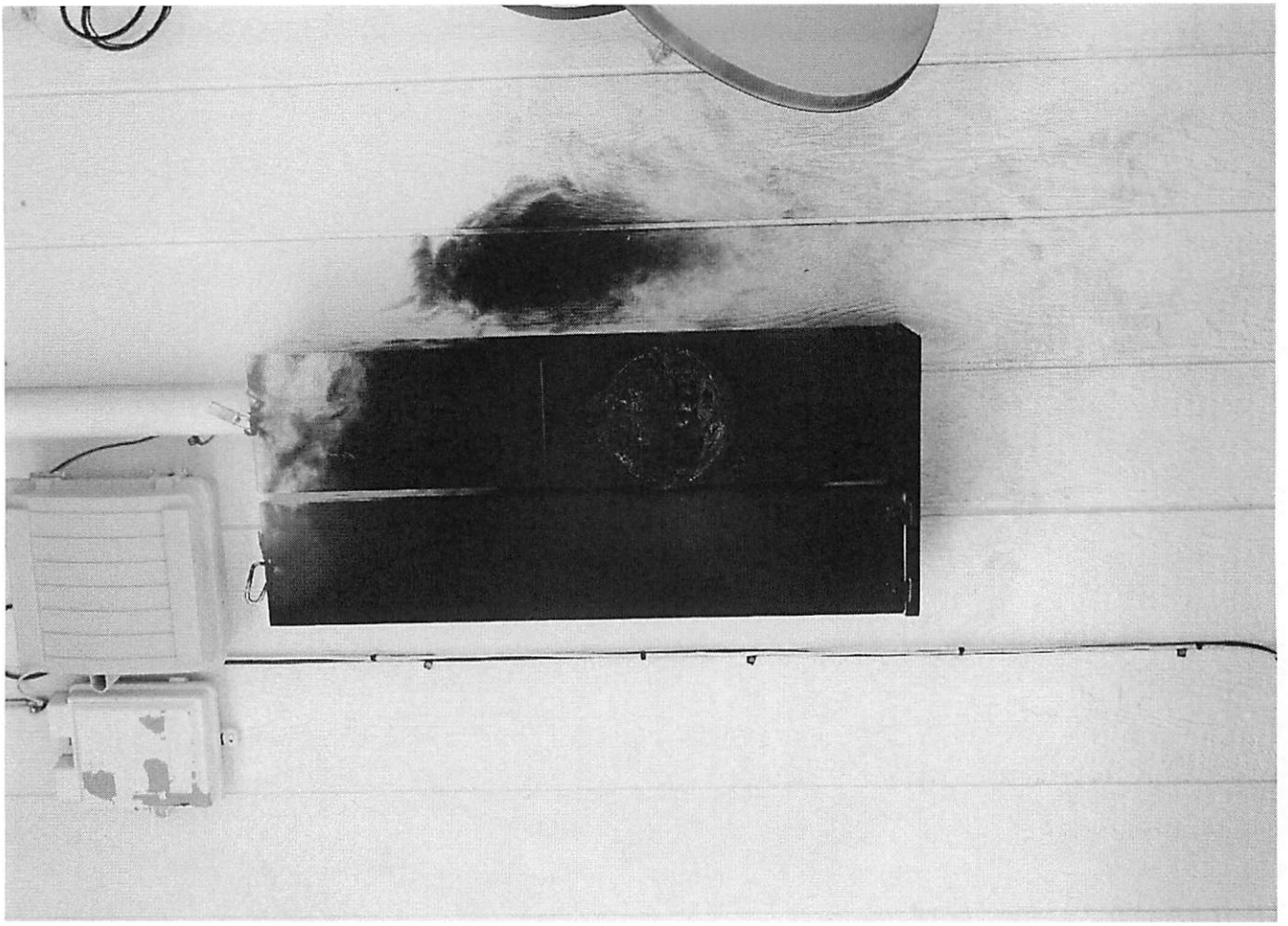
Sparks Fire Department

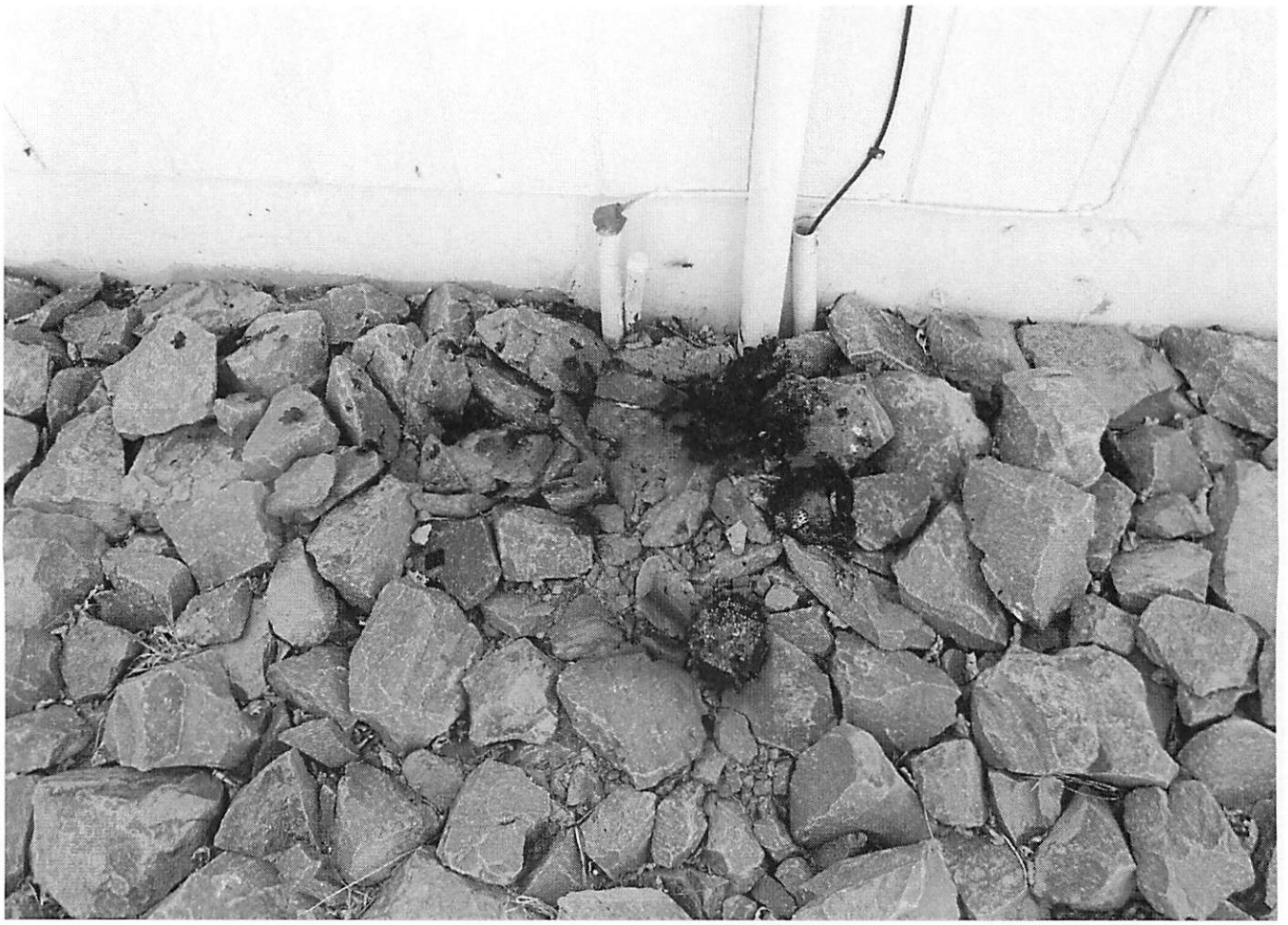
Fire Investigation Time Log

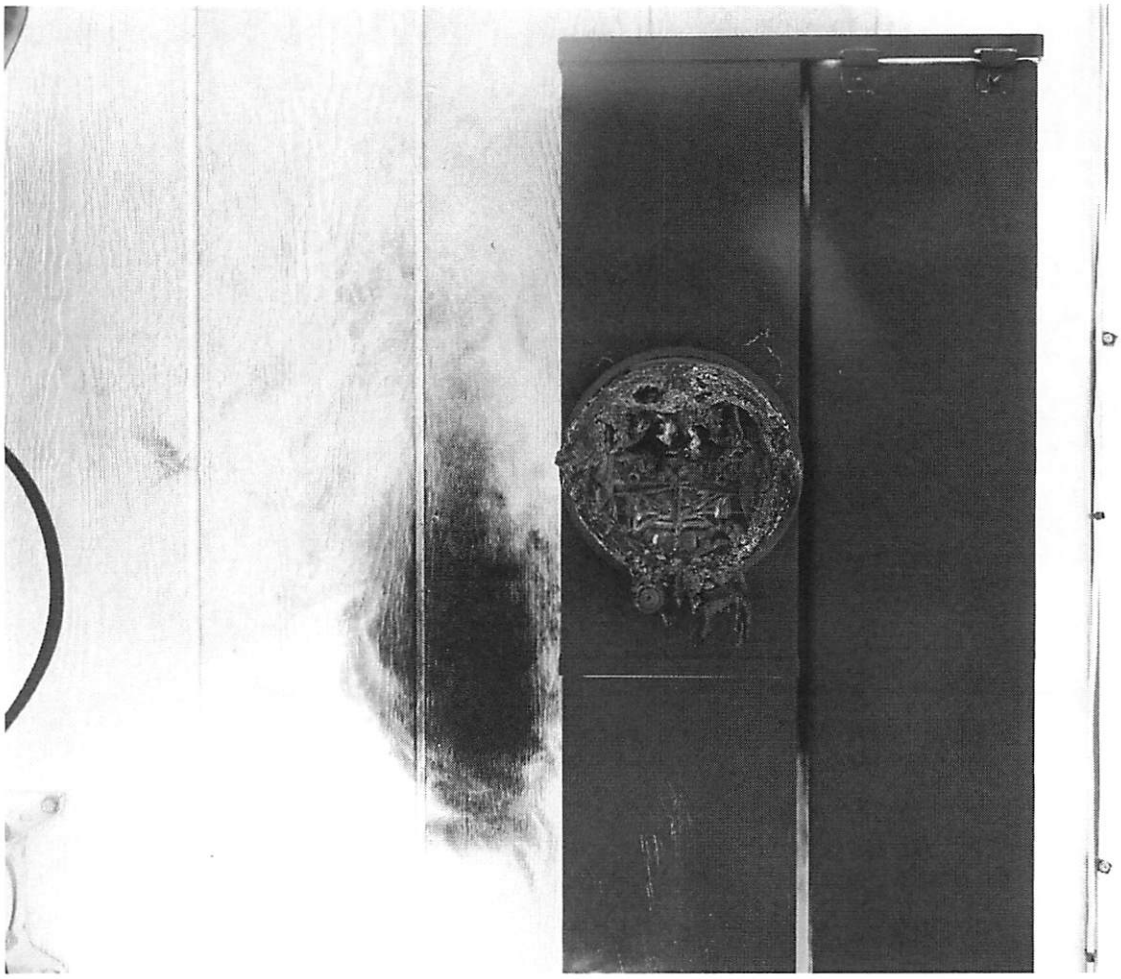
Date	Investigation Activity	Investigator	Hours Expended
6/12/14	REPORT	P-5	3

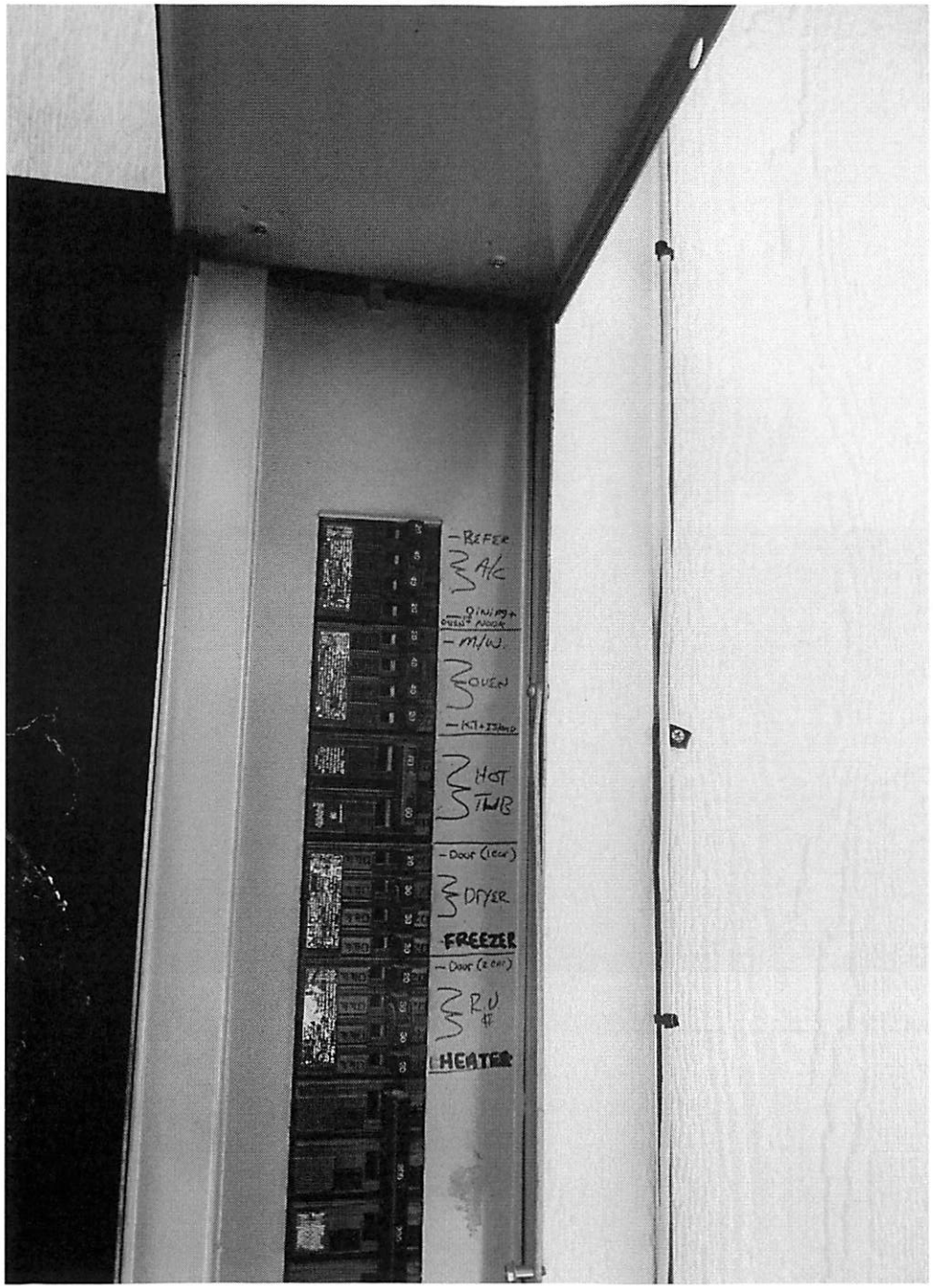
EL CAP CT 4700
MESA MEADOWS DR
STOP

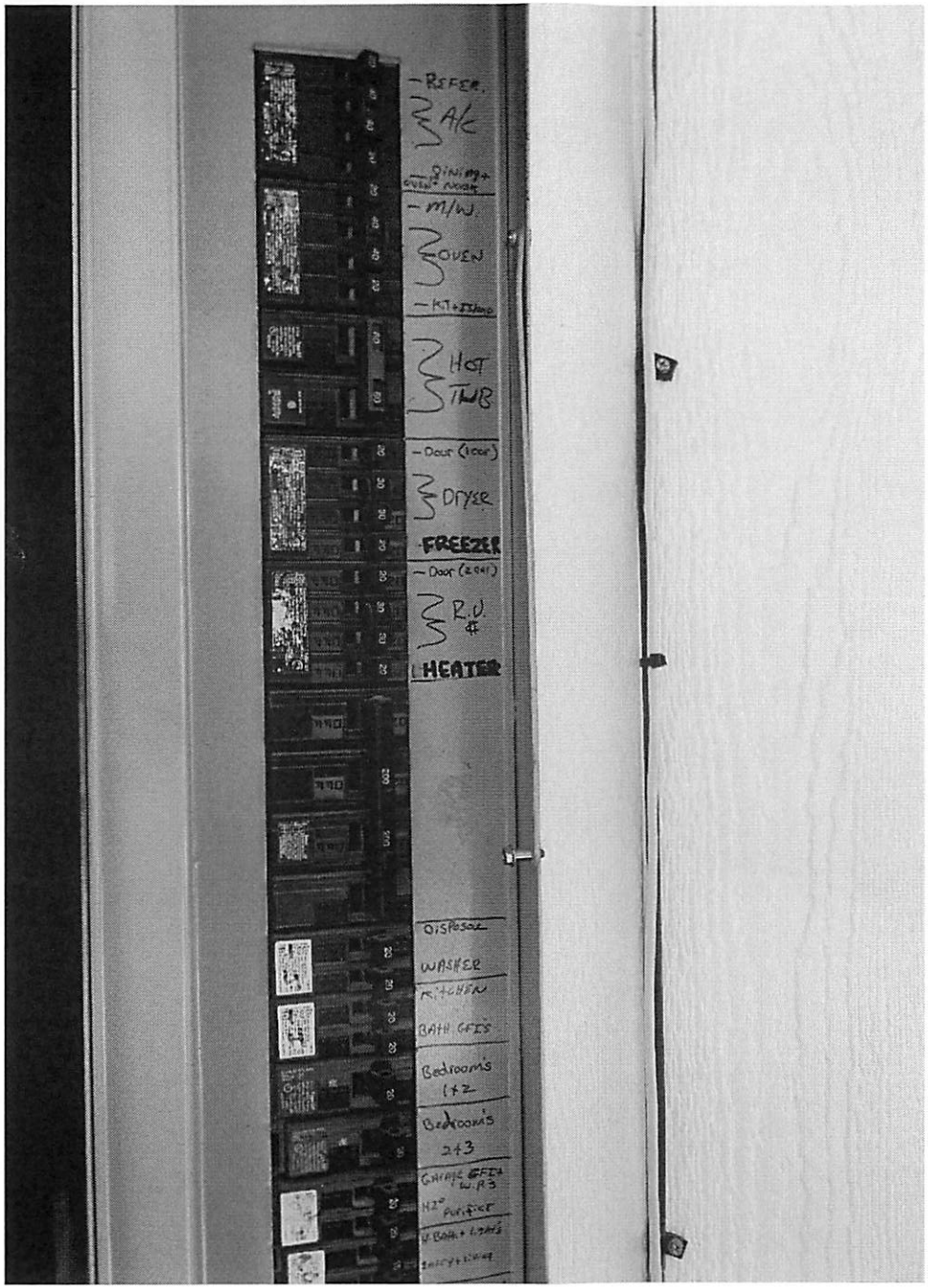
4742



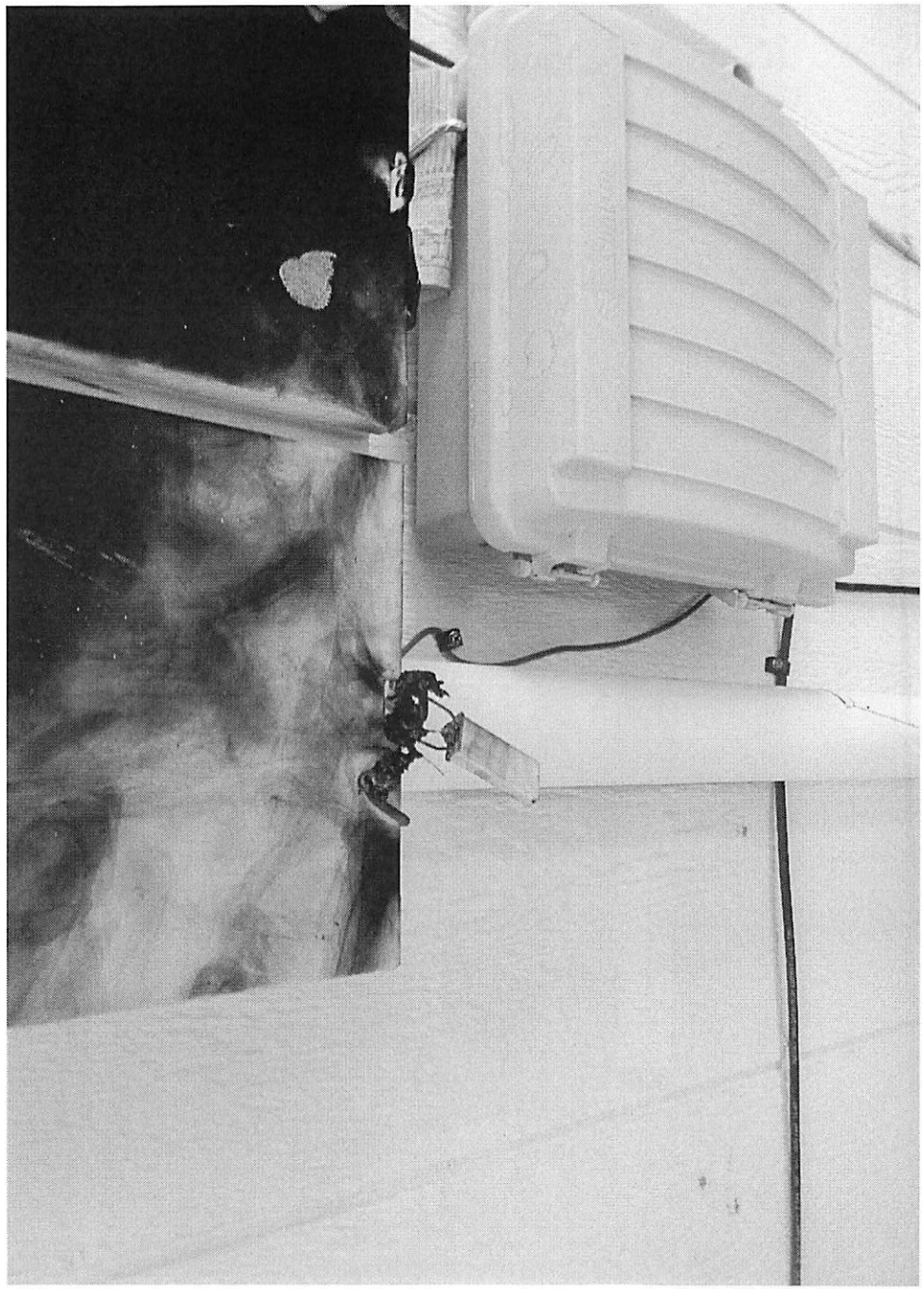


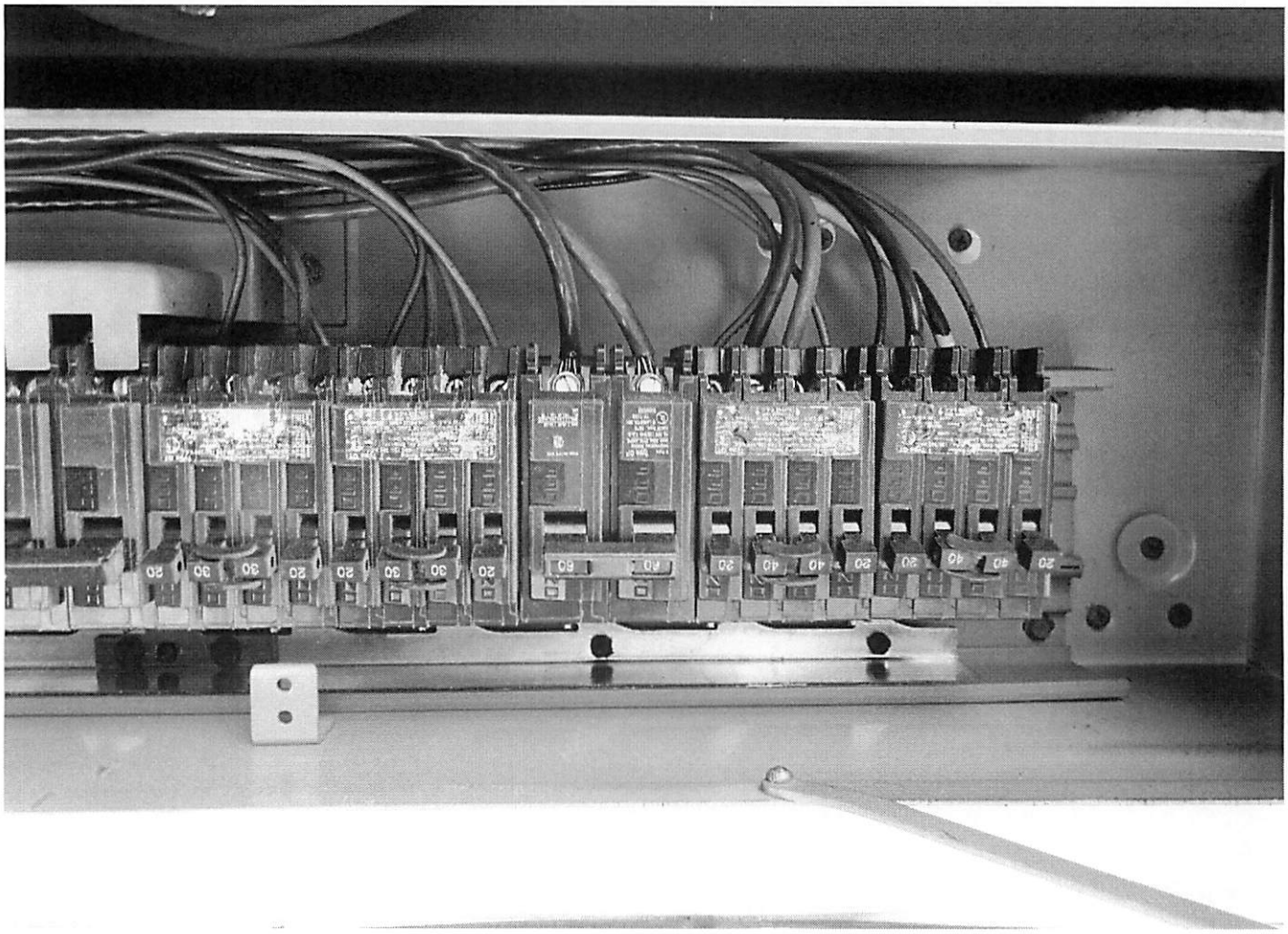


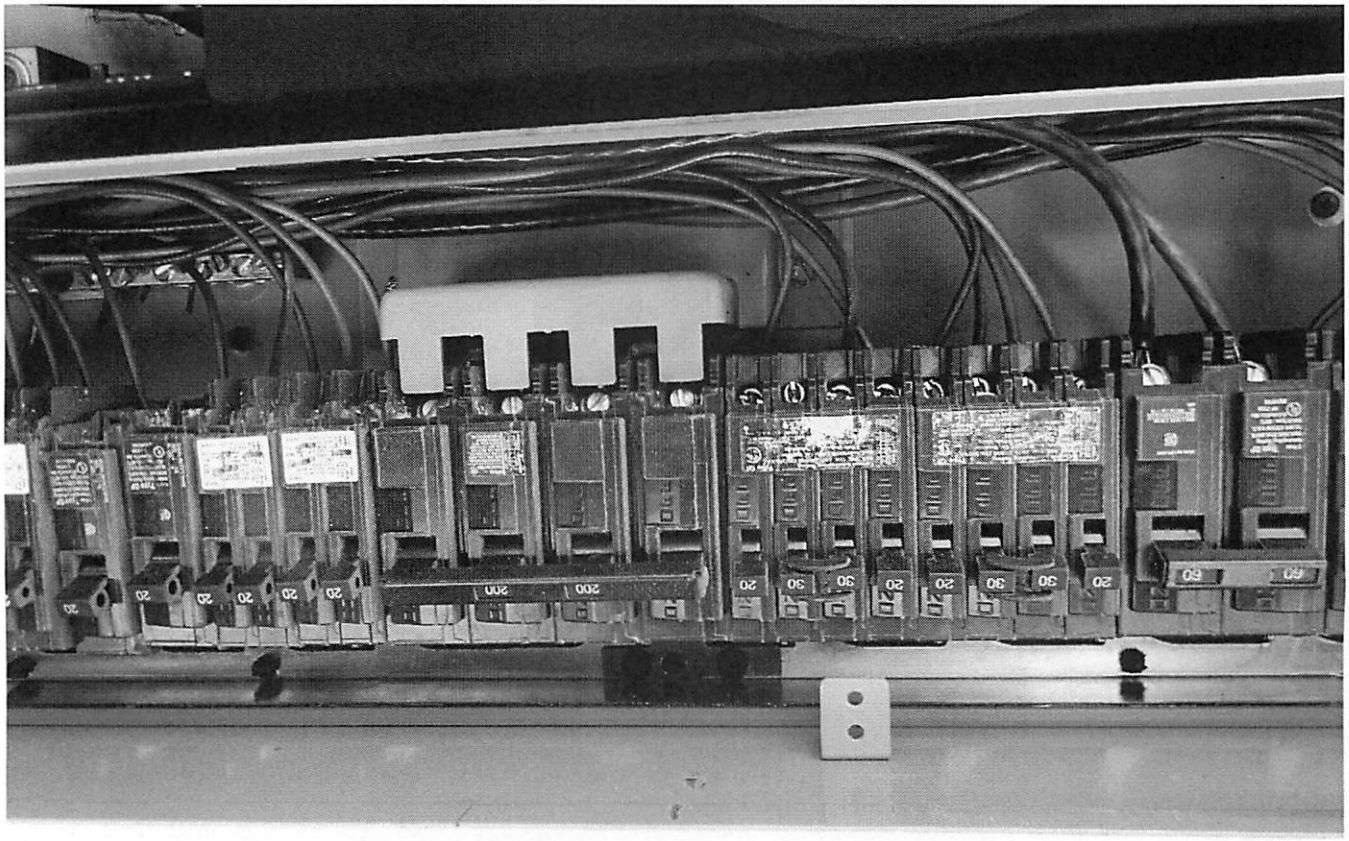

REFER
A/C
DINING + OVEN + NOOK
M/W.
OVEN
KIT + ISLAND
HOT TUB
Door (1 car)
DRYER
FREEZER
Door (2 car)
R.U #
HEATER

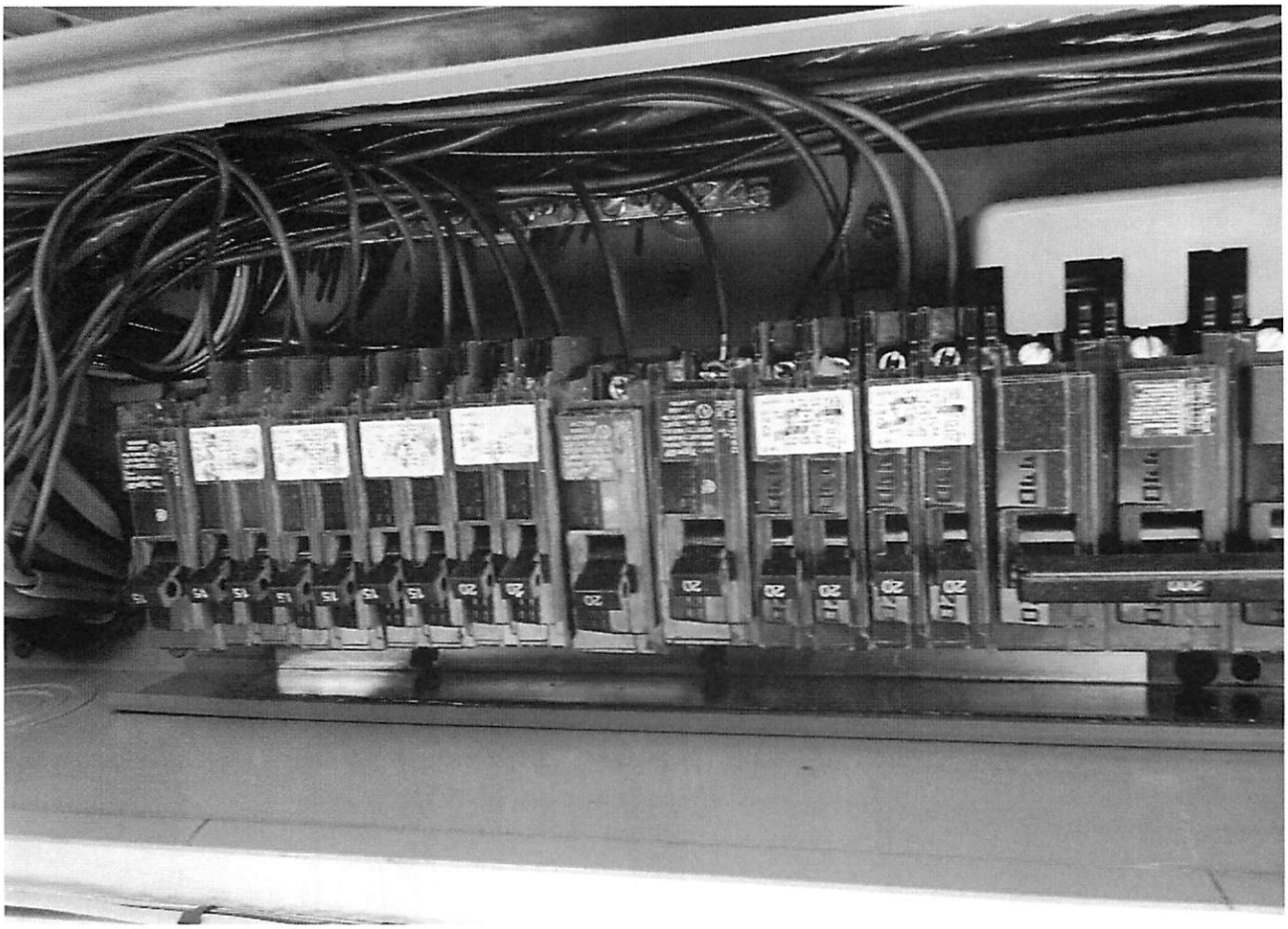

REFER.
A/C
DINING + OVEN + NOOK
M/W.
OVEN
KIT + ISLAND
HOT TUB
Door (1 car)
DRYER
FREEZER
Door (2 car)
R.U #
HEATER
DISPOSAL
WASHER
KITCHEN
BATH GFIS
Bedroom's 1+2
Bedroom's 2+3
GARAGE GFI + W.R 3
H2O Purifier

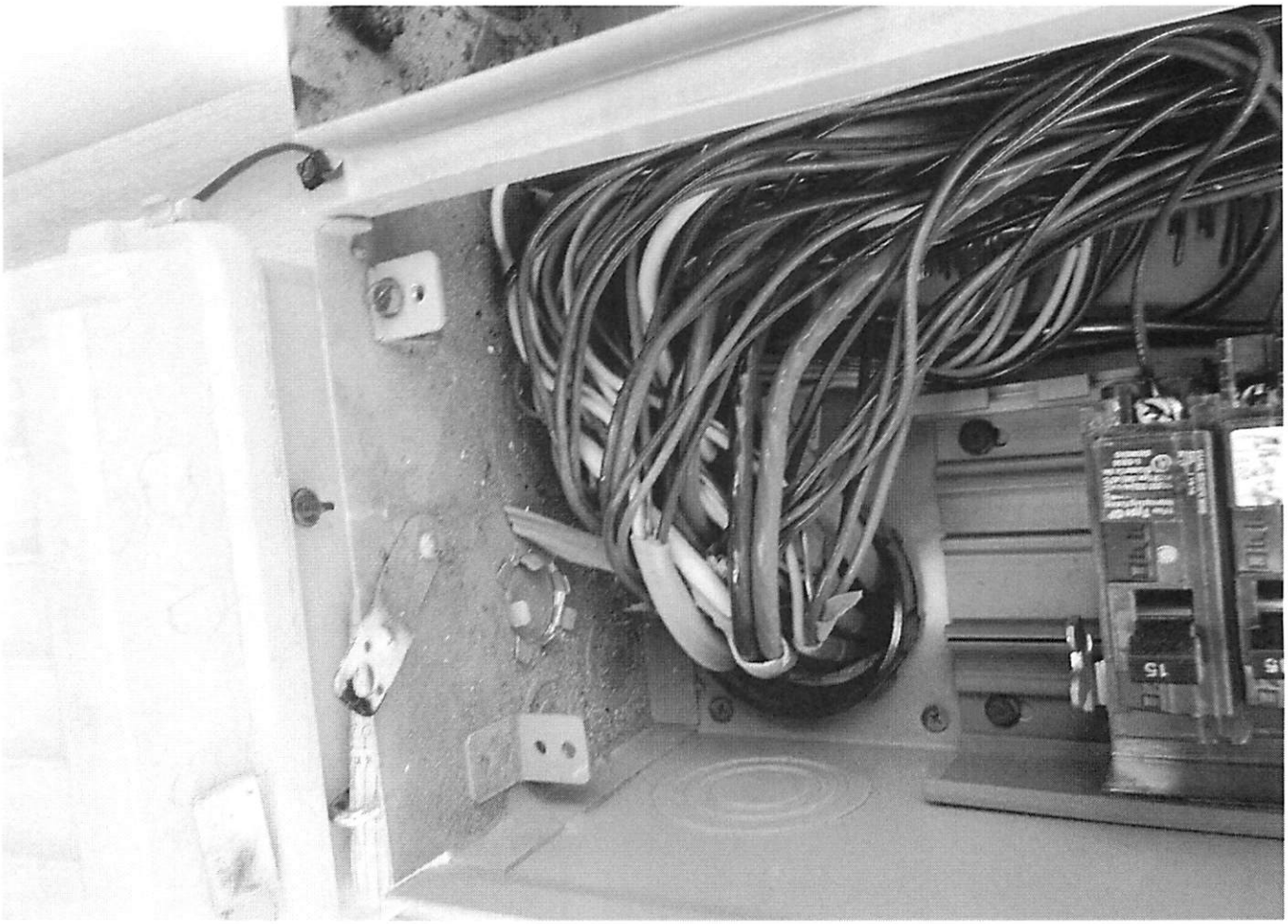
Disposal
WASHER
Kitchen
BATH GFIs
Bedrooms 1+2
Bedrooms 2+3
GARAGE GFIs W.P.S
H2O Purifier
DANGER
PELIGRO



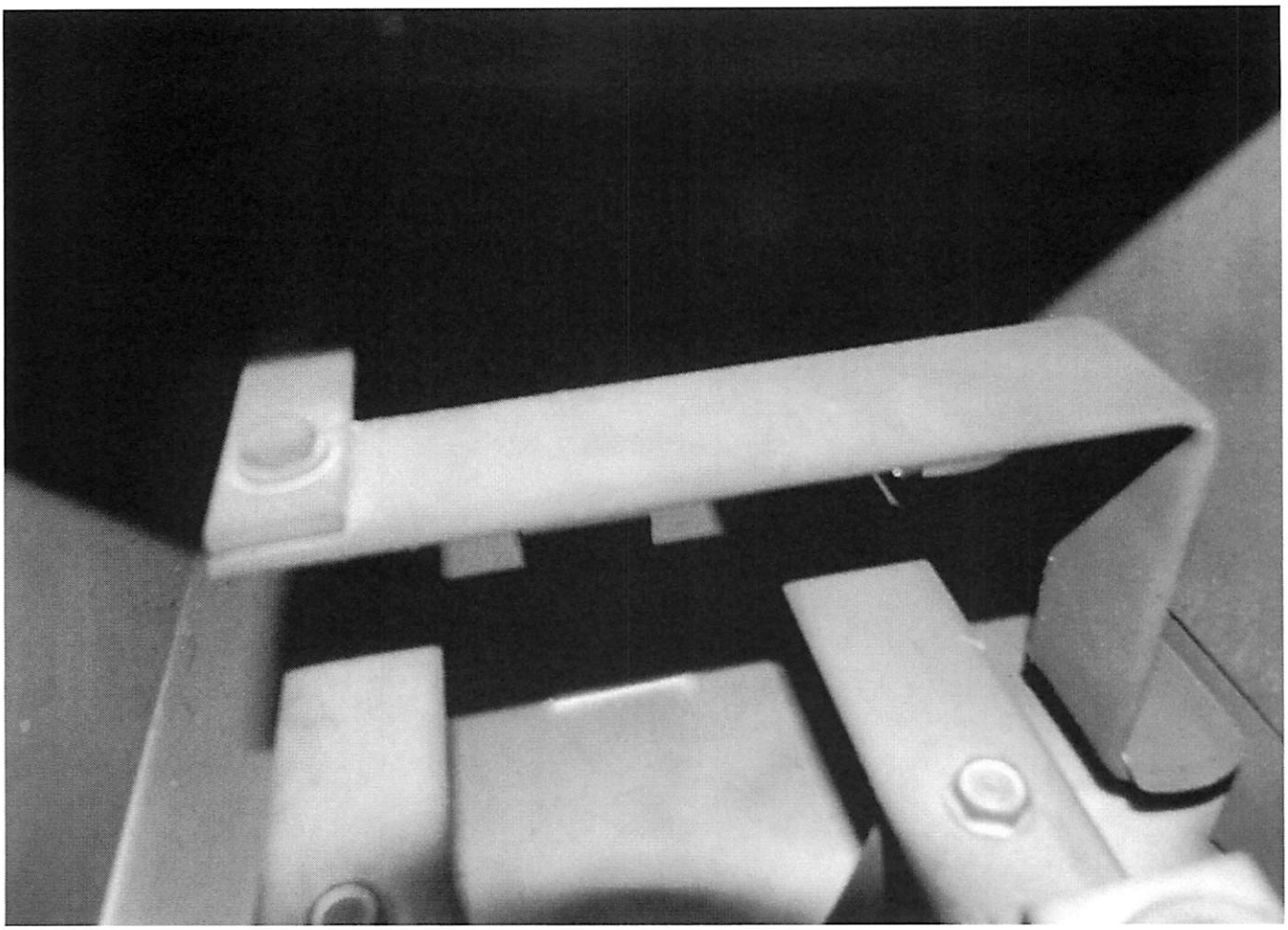


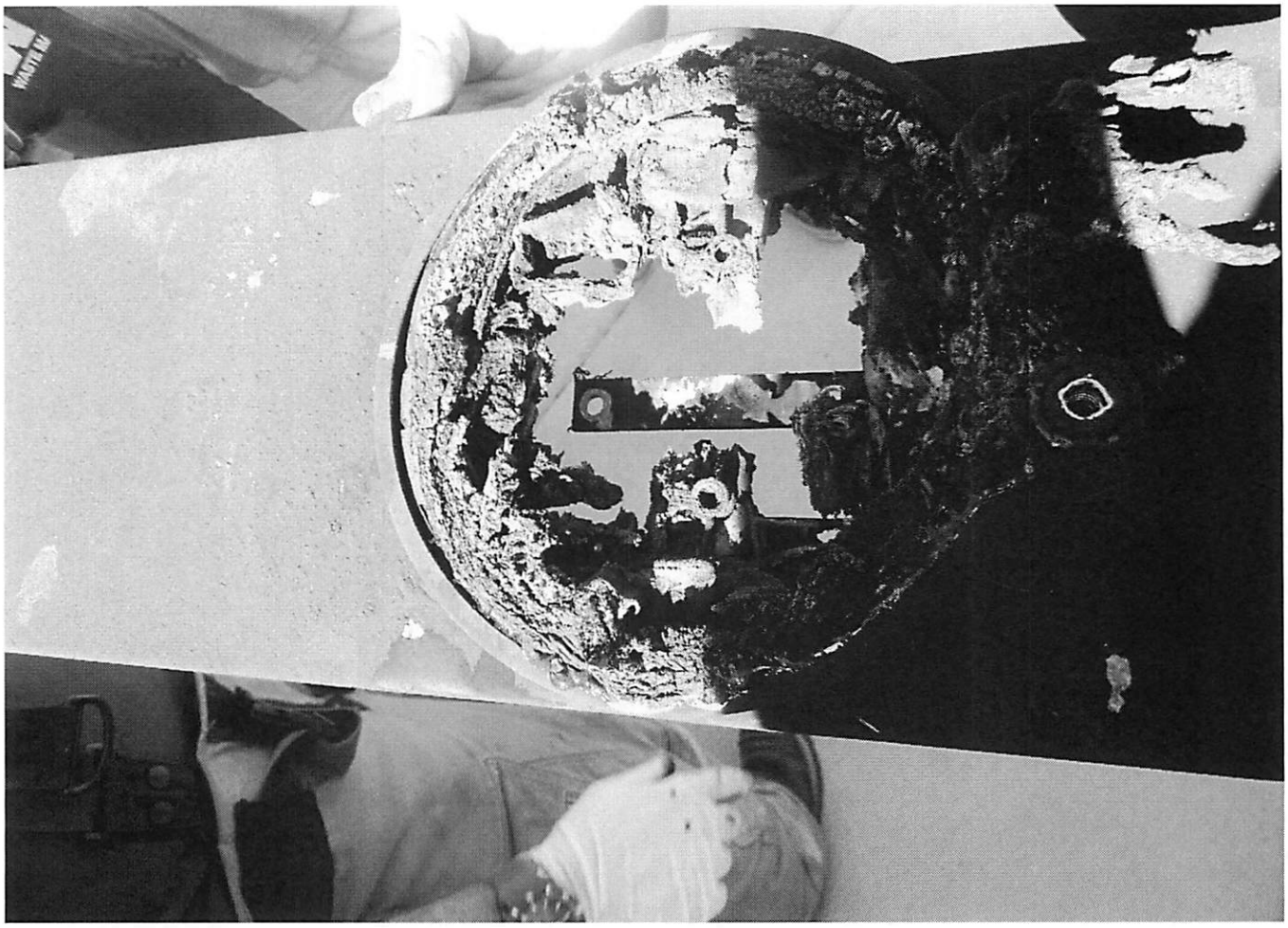


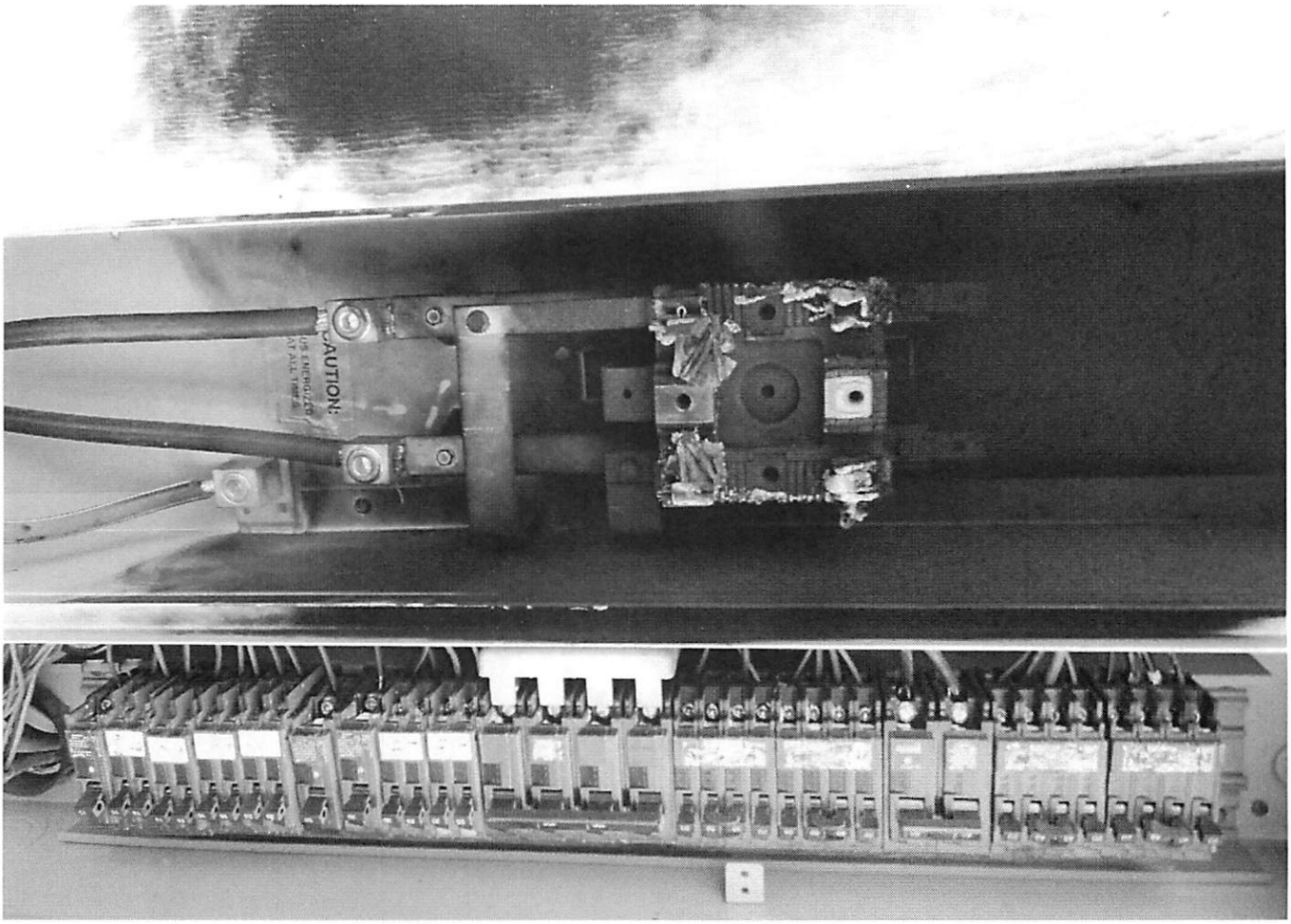


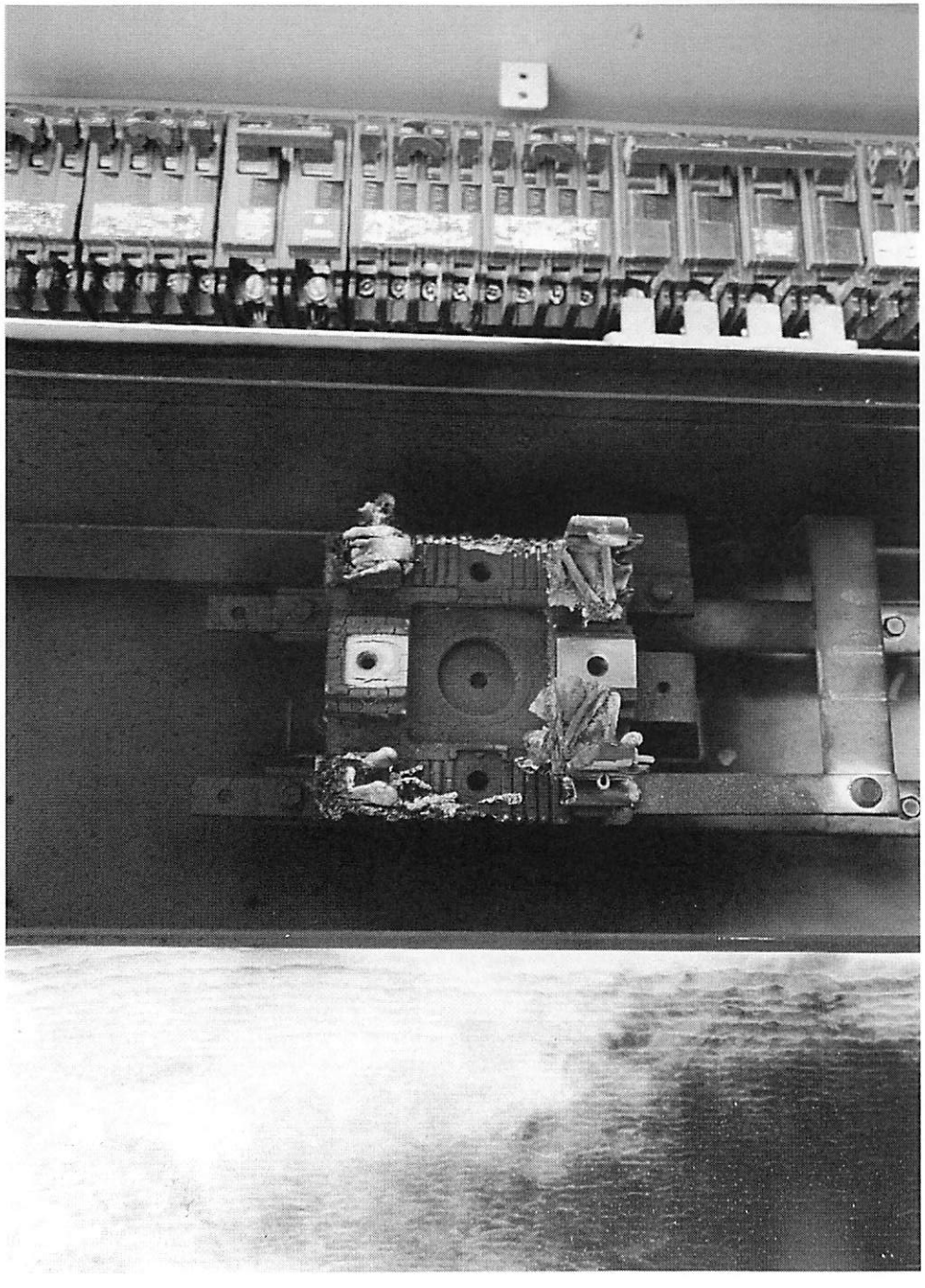


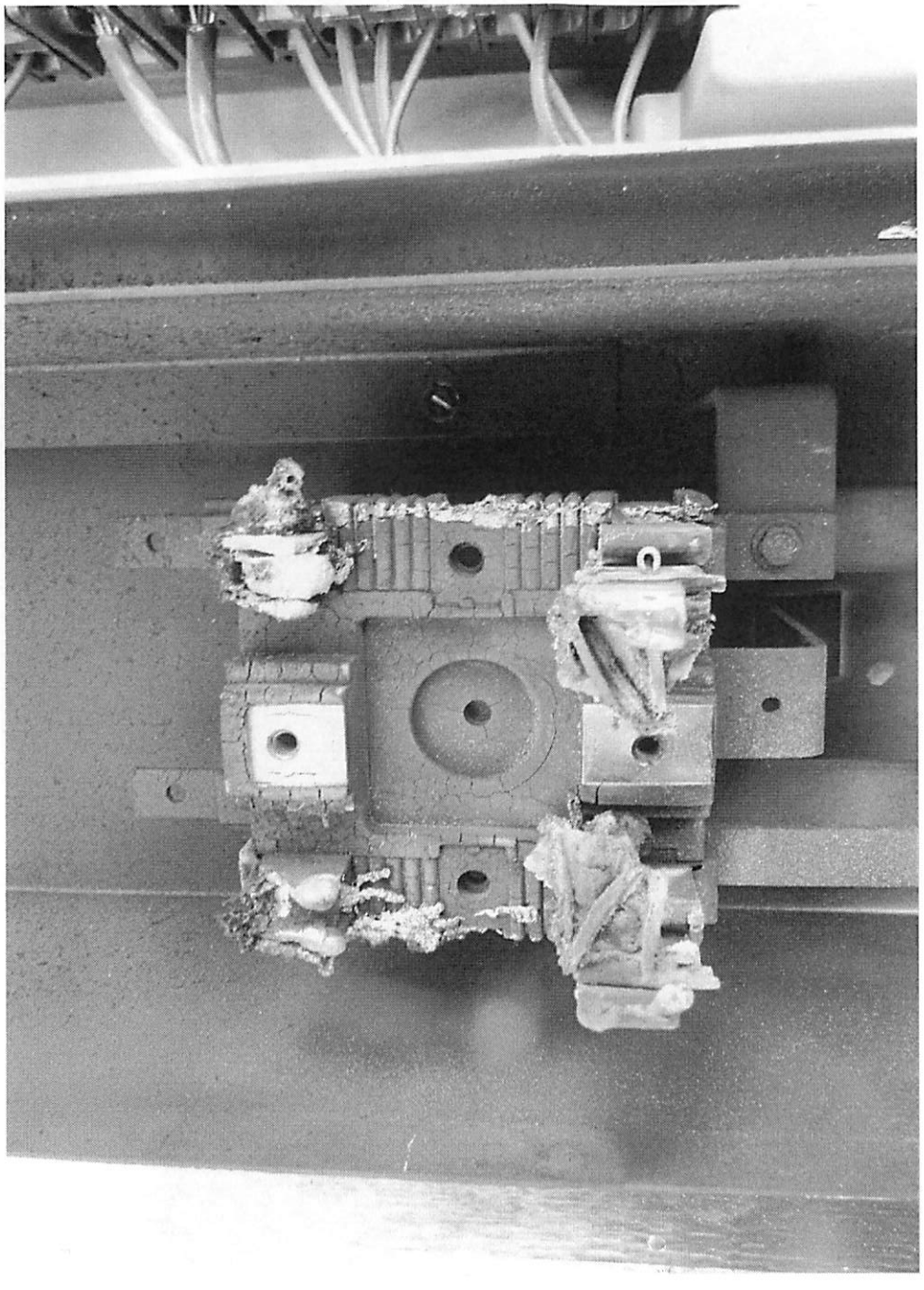
CAUTION:
BUS ENERGIZED
AT ALL TIMES

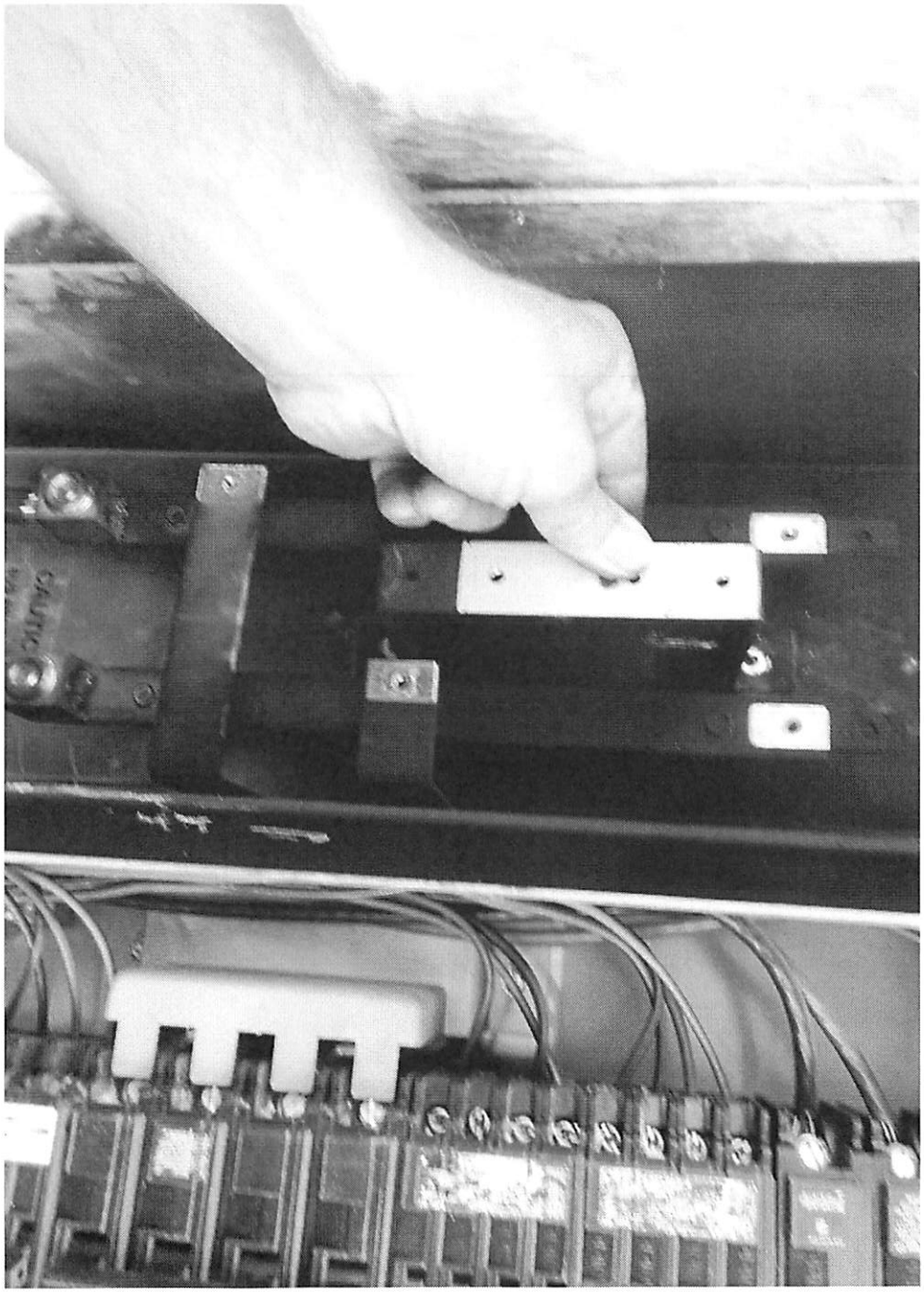


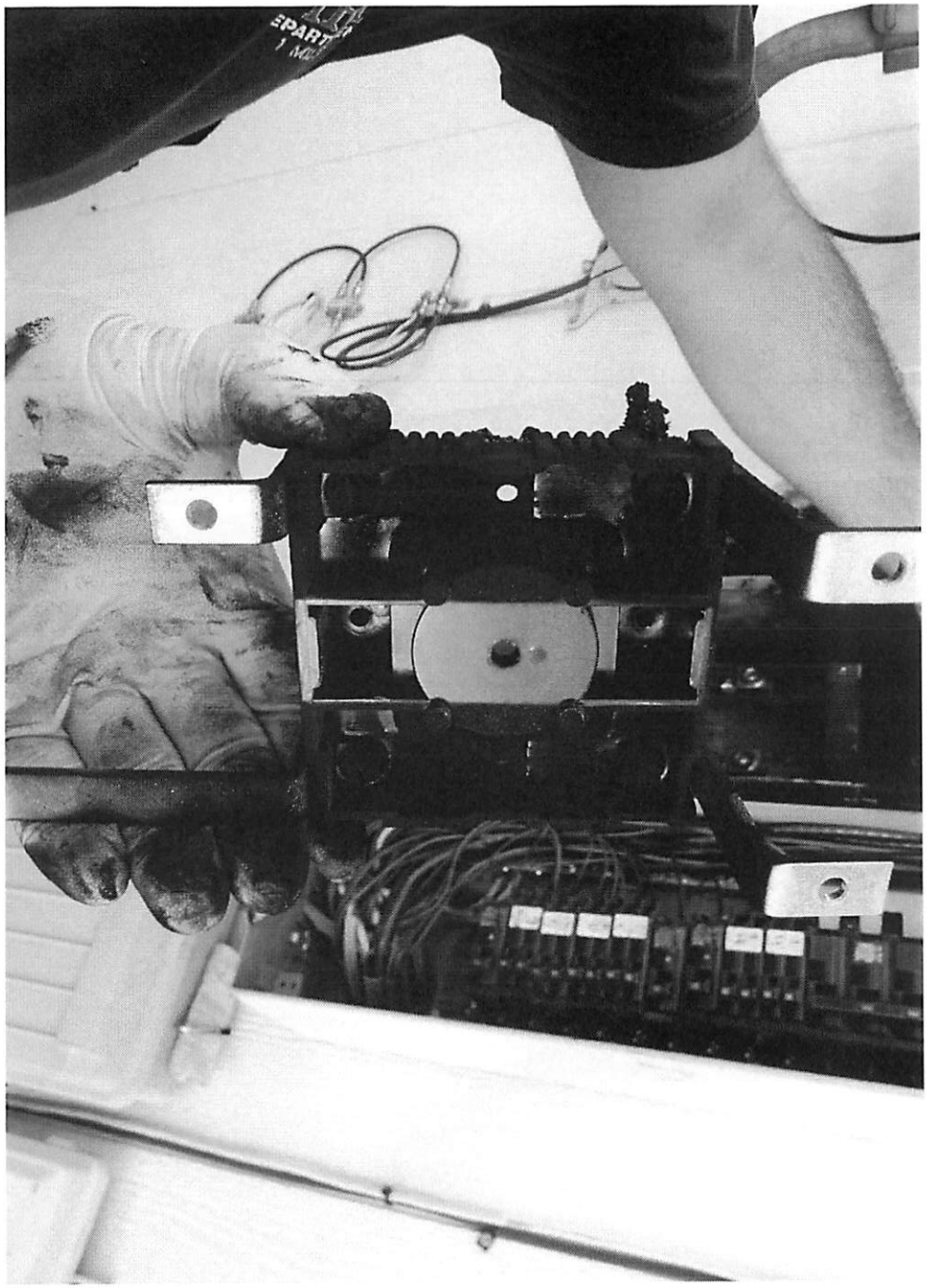


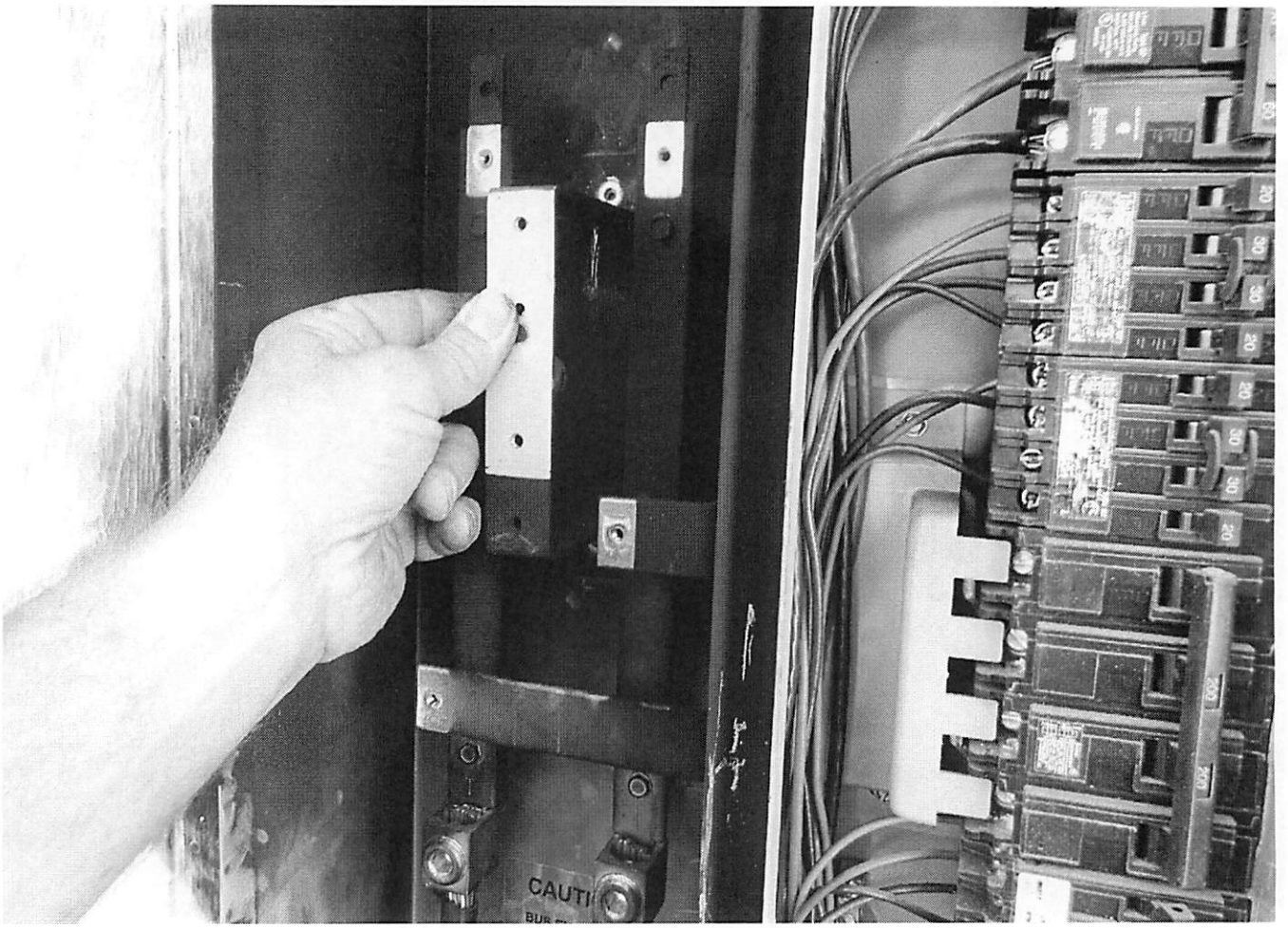

CAUTION:










CAUTI

ATTACHMENT L

7625 Rhinestone Circle, Reno
July 27, 2014 Incident

L.1 Reno Fire Department Report

L.2 NV Energy Documents

ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

ATTACHMENT L.1

7625 Rhinestone Circle, Reno
July 27, 2014 Incident

Reno Fire Department Report

RENO CITY ATTORNEY'S OFFICE

JOHN J. KADLIC
City Attorney

TRACY L. CHASE
Chief Civil Deputy

Civil Division Deputies
ROBERT F. BONY
JACK D. CAMPBELL
WILLIAM COOPER
MARK W. DUNAGAN
SUSAN BALL ROTHE
JONATHAN SHIPMAN
JULIE TOWLER
ANN WILKINSON

Criminal Division Deputies
JILL E. DRAKE
ALISON M. ORMAAS
PAMELA G. ROBERTS
BRIAN M. SOOUDI

DUI Administrative Specialist
CORINNE D. FRIEDMAN

Victim Advocate
SUZANNE RAMOS

September 11, 2014

Re: Reno Fire Incident Report 2014-20009 – 7625 Rhinestone Circle, Reno, Nevada

Dear Requestor:

The attached is a copy of the Reno Fire Department incident report for 7625 Rhinestone Circle, Reno, Nevada that occurred on July 27, 2014. Please be advised that personal medical information has been redacted in good faith as such information is protected law. Limitations on disclosure must be based upon a broad balancing of the interests involved. In this instance, the interest in nondisclosure of personal medical information outweighs the public's interest in access. Gibbons, ___ Nev. ___, 266 P.3d. 623 (2011), DR Partners v. Board of County Commissioners, 116 Nev. 616, 6 P.3d 465 (2000); Donrey of Nevada v. Bradshaw, 106 Nev. 630, 798 P.2d 144 (1990).

Additionally, the NV Energy Smart-meter logs and pictures of the Smart-meter after installation referenced in this incident report are not attached. Pursuant to NAC 239.091 and NAC 239.051 these records were not created by and are not owned by the City of Reno. These records were created by and are owned by NV Energy. As such, ownership of these records does not reside with the City; it resides with the NV Energy, 6226 West Sahara Avenue, Las Vegas, Nevada 89146.

We trust this information has been responsive to your request.

Cordially,

ROBERT F. BONY
Deputy City Attorney

Enc.
RFB/kw

Basic	
Alarm Date and Time	22:59:52 Sunday, July 27, 2014
Arrival Time	23:07:06
Controlled Date and Time	
Last Unit Cleared Date and Time	04:05:24 Monday, July 28, 2014
Response Time	0:07:14
Priority Response	Yes
Completed	Yes
Fire Department Station	06
Shift	A
Incident Type	1111 - Building fire (Under Investigation)
Initial Dispatch Code	STRU2
Aid Given or Received	N - None
Action Taken 1	11 - Extinguishment
Action Taken 2	12 - Salvage & overhaul
Casualties	Yes
Apparatus - Suppression	10
Personnel - Suppression Personnel	23
Property Loss	$0.00
Contents Loss	$0.00
Property Value	$0.00
Contents Value	$0.00
Other Fatalitites	1
Detector Alerted occupants	2
Property Use	419 - 1 or 2 family dwelling
Location Type	Address
Address	7625 RHINESTONE CI
City, State Zip	Reno, NV 89502
District	603
Directions	7625 RHINESTONE CI
Latitude	39.455388
Longitude	-119.771469
Map Page	DF06NE

Person Involved - Sherman, Michelle	
Occupies Property	Yes
Civilian Fire Casualty	Yes
Name Prefix	MRS
Last Name	Sherman
First Name	Michelle
Street Address	7625 RHINESTONE CI
City, State Zip	Reno, NV 89502

Fire	
Structure Type	1 - Enclosed building
Number of Residential	1
Area of Origin	90 - Outside area, other
Heat Source	UU - Undetermined
Item First Ignited	UU - Undetermined

Fire	
Cause of Ignition	5 - Cause under investigation
Contribution To Ignition 1	UU - Undetermined

Structure	
Status	2 - In normal use
Floor of Origin	1
Stories Above Grade	2
Total Square Feet	1200
Fire Spread	4 - Confined to building of origin
Item Contributing To Spread	96 - Rubbish, trash, or waste
Type of Material Contributing To	60 - Wood or paper, processed, other
Detector Presence	2
AES Presence	3

Civilian Casualty - Sherman, Michelle	
Name Prefix	MRS
First Name	Michelle
Last Name	Sherman
Street Address	7625 RHINESTONE CI
City, State Zip	Reno, NV 89502
Gender	2 - Female
Age	61
Date of Birth	April 18, 1953
Severity	5 - Death
Injury Date and Time	July 27, 2014
Cause of Injury	1 - Exposed to fire products
Primary Body Part Injured	9 - Multiple parts
Affiliation	1

Apparatus - M1	
Apparatus ID	M1
Apparatus Dispatch Date and Time	23:16:48 Sunday, July 27, 2014
En route to scene date and time	23:16:48 Sunday, July 27, 2014
Apparatus Clear Date and Time	01:50:05 Monday, July 28, 2014
Apparatus priority response	Yes
Apparatus Use	1
Apparatus Type	60 - Support apparatus, other

Apparatus - E6	
Apparatus ID	E6
Response Time	0:06:55
Apparatus Dispatch Date and Time	23:00:11 Sunday, July 27, 2014
En route to scene date and time	23:02:05 Sunday, July 27, 2014
Apparatus Arrival Date and Time	23:07:06 Sunday, July 27, 2014
Apparatus Clear Date and Time	04:04:44 Monday, July 28, 2014
Apparatus priority response	Yes
Number of People	4
Apparatus Use	1

Apparatus - E6	
Apparatus Type	11 - Engine
Personnel 1	4132 - DIANI, Thomas J
	Position: CAPT
Personnel 2	6322 - SPRINKLE, Michael
	Position: FF
Personnel 3	7644 - STEVENS, Mark
	Position: FF
Personnel 4	9080 - BREWER, Michael
	Position: FF

Apparatus - E3	
Apparatus ID	E3
Response Time	0:09:04
Apparatus Dispatch Date and Time	23:00:11 Sunday, July 27, 2014
En route to scene date and time	23:01:55 Sunday, July 27, 2014
Apparatus Arrival Date and Time	23:09:15 Sunday, July 27, 2014
Apparatus Clear Date and Time	02:19:38 Monday, July 28, 2014
Apparatus priority response	Yes
Number of People	4
Apparatus Use	1
Apparatus Type	11 - Engine
Personnel 1	5799 - BLONDFIELD, David P
	Position: FF
Personnel 2	9844 - MAYS, Martin
	Position: FF
Personnel 3	10951 - OBRIEN, Sean
	Position: FF
Personnel 4	8272 - CANADAY, Richard
	Position: FF

Apparatus - E12	
Apparatus ID	E12
Response Time	0:09:08
Apparatus Dispatch Date and Time	23:00:11 Sunday, July 27, 2014
En route to scene date and time	23:02:15 Sunday, July 27, 2014
Apparatus Arrival Date and Time	23:09:19 Sunday, July 27, 2014
Apparatus Clear Date and Time	00:58:14 Monday, July 28, 2014
Apparatus priority response	Yes
Number of People	4
Apparatus Use	1
Apparatus Type	11 - Engine
Personnel 1	6986 - DOLAN, Joe
	Position: CAPT
Personnel 2	6320 - SULLIVAN, Stephen
	Position: FEO
Personnel 3	9848 - STEIN, Chad
	Position: FF
Personnel 4	11740 - KELLY, Tacy

Apparatus - E12
Position: FF

Apparatus - T3	
Apparatus ID	T3
Response Time	0:09:29
Apparatus Dispatch Date and Time	23:00:11 Sunday, July 27, 2014
En route to scene date and time	23:01:57 Sunday, July 27, 2014
Apparatus Arrival Date and Time	23:09:40 Sunday, July 27, 2014
Apparatus Clear Date and Time	02:14:09 Monday, July 28, 2014
Apparatus priority response	Yes
Number of People	4
Apparatus Use	1
Apparatus Type	12 - Truck or aerial
Personnel 1	1568 - FLENNER, Jim A Position: CAPT
Personnel 2	5053 - PEDRO, Brian G Position: FF
Personnel 3	5800 - BELTON, Jason J Position: FF
Personnel 4	7648 - PATOCKA, Paul Position: FEO

Apparatus - BAT2	
Apparatus ID	BAT2
Response Time	0:10:28
Apparatus Dispatch Date and Time	23:00:11 Sunday, July 27, 2014
En route to scene date and time	23:03:10 Sunday, July 27, 2014
Apparatus Arrival Date and Time	23:10:39 Sunday, July 27, 2014
Apparatus Clear Date and Time	02:33:28 Monday, July 28, 2014
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Type	92 - Chief officer car
Personnel 1	6330 - LEIGHTON, Stephen Position: BC

Apparatus - E21	
Apparatus ID	E21
Response Time	0:10:48
Apparatus Dispatch Date and Time	23:06:31 Sunday, July 27, 2014
En route to scene date and time	23:08:35 Sunday, July 27, 2014
Apparatus Arrival Date and Time	23:17:19 Sunday, July 27, 2014
Apparatus Clear Date and Time	23:56:01 Sunday, July 27, 2014
Apparatus priority response	Yes
Number of People	4
Apparatus Use	1
Apparatus Type	11 - Engine
Personnel 1	6934 - KIEVIT, Robert

Apparatus - E21	
	Position: FF
Personnel 2	5592 - GRADY, Shawn
	Position: FF
Personnel 3	9432 - MANDELL, John
	Position: FF
Personnel 4	9840 - KOCHERGIN, John
	Position: FF

Apparatus - TRG1	
Apparatus ID	TRG1
Response Time	0:21:28
Apparatus Dispatch Date and Time	23:00:11 Sunday, July 27, 2014
En route to scene date and time	23:02:28 Sunday, July 27, 2014
Apparatus Arrival Date and Time	23:21:39 Sunday, July 27, 2014
Apparatus Clear Date and Time	02:16:14 Monday, July 28, 2014
Apparatus priority response	Yes
Apparatus Use	1
Apparatus Type	60 - Support apparatus, other

Apparatus - R1	
Apparatus ID	R1
Response Time	0:24:46
Apparatus Dispatch Date and Time	23:00:11 Sunday, July 27, 2014
En route to scene date and time	23:01:35 Sunday, July 27, 2014
Apparatus Arrival Date and Time	23:24:57 Sunday, July 27, 2014
Apparatus Clear Date and Time	01:27:30 Monday, July 28, 2014
Apparatus priority response	Yes
Number of People	2
Apparatus Use	1
Apparatus Type	71 - Rescue unit
Personnel 1	7266 - DRUM, Brad
	Position: FEO
Personnel 2	10955 - HALL, Trevor
	Position: FF

Apparatus - AIR1	
Apparatus ID	AIR1
Response Time	0:02:21
Apparatus Dispatch Date and Time	23:46:05 Sunday, July 27, 2014
En route to scene date and time	23:46:05 Sunday, July 27, 2014
Apparatus Arrival Date and Time	23:48:26 Sunday, July 27, 2014
Apparatus Clear Date and Time	02:29:30 Monday, July 28, 2014
Apparatus priority response	Yes
Apparatus Use	1
Apparatus Type	61 - Breathing apparatus support

Authority	
Reported By	4132 - DIANI, Thomas J

Authority	
	07:40:13 Tuesday, September 2, 2014
Officer In Charge	6330 - LEIGHTON, Stephen
	07:40:21 Tuesday, September 2, 2014
Reviewer	- ,

Narratives

Narrative Name	E21
Narrative Type	Incident
Narrative Date	00:10:01 Monday, July 28, 2014
Author	9432 - MANDELL, John
Author Rank	FF
Author Assignment	1
Narrative Text	9432: E21 arrived on scene and was assigned RIT. E21 set up RIT on A side of structure in street. E21 completed walk around of structure, noted many fences and difficult access to C/D side of structure. A fence had been knocked down allowing good access to A/B side of structure. Part of E21 crew assisted E3 by getting a hotel pack charged and to the garage door for E3. E21 was released by Command and returned.
Narrative Name	E12
Narrative Type	Incident
Narrative Date	06:59:04 Monday, July 28, 2014
Author	6986 - DOLAN, Joe
Author Rank	CAPT
Author Assignment	1
Narrative Text	Upon arrival E12 was assigned to pull a second line to the second floor. E12 crew used an 1" and 3/4 from E6. Once on the second floor E12 also search for a male subject who was thought to be on the second floor. No male subject was found. E12 performed extinguishment on the hot spots both inside and outside of the balcony. E12 crew completed our assignment and went to rehab. E12 was released after rehab. Dolan. 6986
Narrative Name	R1
Narrative Type	Incident
Narrative Date	07:10:22 Monday, July 28, 2014
Author	7266 - DRUM, Brad
Author Rank	FEO
Author Assignment	1
Narrative Text	R1 dispatched as part of first alarm for structure fire. Upon arrival, Batt 2 gave orders to rescusitate victims dog just brought out of fire and left on driveway in front of residence. Dog was stiff, immovable and in agonal respirations with light singe to body hair. High-flow O2 via BVM given with constant body massage to stimulate dog, Remsa medic starts IV line, and approx 5 mins later the dog is revived and moving on own. R1 then assigned to rooftop ventilation with T3 in ventilation group. Inspection holes and louvered ventilation cuts performed by FF Hall while debri and roofing material removed by Op Drum in coordination with Capt Flenner. After release from duties, equipment recovered and R1 returned available without incident. B Drum 7266

Narratives	
Narrative Name	E3
Narrative Type	Incident
Narrative Date	10:33:01 Monday, July 28, 2014
Author	9844 - MAYS, Martin
Author Rank	ACO
Author Assignment	1
Narrative Text	E3 arrived on scene and was assigned water supply by command. After securing water supply with 4 sticks of 5", Command assigned E3 to check for extension on the 'Charlie' side of the structure. E3 reported to command no extension to any other adjacent units. E3 also secured gas and determined the electrical box for the unit involved was destroyed by fire. Power was still hot until NV energy arrived. E3 assisted E6 with exterior extinguishment via coordination with T3 and also forced entry into both adjacent garage units. Picked up 5" and assisted E6 with hose loading. Mays9844
Narrative Name	E6
Narrative Type	Incident
Narrative Date	12:00:31 Monday, July 28, 2014
Author	4132 - DIANI, Thomas J
Author Rank	CAPT
Author Assignment	1
Narrative Text	Found 2 story, single famlily attached building heavily involved on A-D side, kitchen and upstairs living area upon arrival. Found adult female on street c/o burns from fire. Victim was being attended by a person who stated she was a nurse. Nurse requested [redacted] and gloves from me. I provided her with medical gloves only. I requested REMSA go directly to the patient upon their arrival. REMSA arrived and assumed pt care approx 1m after our initial contact with the pt. Bystanders stated to me that victim had been removed from the fire by them, and that there was a male still inside the involved dwelling. Also advised that possible victim would most likely be upstairs in a bedroom. I established command and requested water to E6 from next engine. E6 used 1.75 crosslay to perform initial attack of fire, and support search for anybody still inside the involved house. E6 advanced hoseline to outside porch area and extinguished fire to make entry. House was full of trash and bagged clothing and boxes, making movement very difficult. Placed hose at second floor landing to extinguish fire and perform search. Found fully involved master bedrrom. Used Thermal Imaging camera to aid search effort. Found no victim on second floor in any area including bathrooms, bedrooms and closets. Performed search on first floor and found no victim. Remained on scene after release of other resources to check for hot areas and wait for board up company to complete their work.
Narrative Name	T3
Narrative Type	Incident
Narrative Date	16:52:02 Monday, July 28, 2014
Author	1568 - FLENNER, Jim A
Author Rank	CAPT

Narratives	
Author Assignment	1
Narrative Text	T3 resp to report of structure fire, arr & unable to stage on Rhinestone. Crew split, Capt & FF enter structure assigned rescue for report of M victim in upstairs room. Enter to find approx 2' of visibility in heavy smoke, access severely limited due to very large amount of personal belongings on floor. Check all rooms w/ right hand search w/ TIC. No persons found. Repeat search, still UTL. At this point other half of T3 crew, OP & OA, have laddered building w/ 2 ladders, staged saws for topside ventilation, placed fan @ front door. Fan started, Capt & FF begin ventilation plan. Report UTL to Command, have OP & OA enter to repeat search. Still UTL. Bottle change. T3 crew to roof, looking for attic fire. Find 3 decorative dormers on top of flat roof w/ membrame, small amount of fire extinguished w/ water can. Membrame remived and saws cut into flat roof, no fire inside roof structure. T3 crew except for Capt to rehab, R1 crew to roof. Coordinate w/ E3 for water applied to outside eaves and roof overhang, aditional cuts to allow water into dormers. No other issues on roof after TIC survey, recover ladders and saws. After assisting w/ hose reloads, debrief, T3 released, returns, scene left w/ E6. J.Flenner 1568
Narrative Name	Trng 1
Narrative Type	Incident
Narrative Date	17:16:35 Monday, July 28, 2014
Author	2527 - MARCHBANKS, Roy I
Author Rank	CAPT
Author Assignment	1
Narrative Text	Training 1 performed the duties of SO on this incident. Upon arrival I made a 360 around the involved structure, then continued to check in with command as needed. At one point FF Pedro need treatment for what appered to be [redacted], he was treated by REMSA medics, then released back to the incident.
Narrative Name	Inspector 1
Narrative Type	Incident
Narrative Date	09:06:10 Tuesday, July 29, 2014
Author	6466 - PALMER, Tray L
Author Rank	FPC
Author Assignment	3
Narrative Text	I, Tray PALMER, Fire Investigator, was dispatched to the above working structure fire. I reported to Incident Command. Battalion Chief S. LEIGHTON was in command. Engine 6 was first in. Captain DIANI reported that upon arrival the 2 story single family attached building was heavily involved in fire on the south and east side of the building. There was a large amount of fire coming from the exterior balcony, second story bedroom, and first floor kitchen. An adult female victim was on the street with burns from the fire. DIANI said the victim was being attended by a person who stated she was a nurse. REMSA arrived and assumed patient care, transporting her to Renown Medical. Bystanders stated to the engine crew that there was a possible second male victim most likely upstairs in a bedroom. No second victim was found. Rescue 1 crew rescusitated victims dog which was transported to an animal hospital. Firefighters extinguished the fire. Area of Origin: I began my investigation and followed the scientific method as described in NFPA 921, Guide for Fire & Explosion Investigations. I started my investigation working from the area of least smoke, heat and fire damage, working toward the area of most smoke, heat

Narratives

and fire damage.

The fire occurred to a residential two story wood frame town home. The town home was connected to 3 other town homes that were undamaged by the fire. There was extensive fire damage to the kitchen, master bedroom, balcony, and roof. There was moderate heat and smoke damage throughout the rest of the house.

I made entry into the structure through the front door. Immediately in front of me was a stairway to the second floor. It was at the base of these stairs on the floor where the victim was initially found by neighbors. At the top of the stairs was a hallway that led to 3 bedrooms.

The hallway and two of the bedrooms showed minimal heat and moderate smoke damage. The entrance to the Southeast master bedroom showed heavier smoke and fire damage on the interior side, indicating that the fire encroached from inside the master bedroom. The greatest fire damage in the master bedroom occurred to the southeast corner of the room. The southeast corner of the foam mattress was heavily charred as compared to the rest of the mattress, indicating that the fire encroached from the area of the balcony. A dresser along the south wall showed heavier charring on its east side facing the balcony. The sheet rock wall above the air conditioning unit on the east wall, and above the dresser showed heavy calcination, with a wide V pattern down to floor level. The door to the balcony was in the middle of this pattern. The door frame to the balcony showed deep beveled charring that was more prominent facing the exterior deck.

I examined the exterior second level deck. On the deck were remnants of a metal table, chair, metal shelving, and charred cardboard, The metal railing to the deck was oxidized from extreme heat. The wood flooring of the deck was heavily charred along the top and bottom side, facing the patio area below. The exterior deck beam along the south portion of the deck, showed heavy deep seated charring that was more prominent along the bottom side. The beveled charring was more prominent under the east portion of the deck, indicating that the fire encroached from below the deck, in the proximity of the exterior wall that separated the patio from the attached garage.

I examined the first floor. The living room and entry way suffered minimal to moderate fire damage. The living room and dining area opened up into the kitchen. The kitchen suffered extensive fire damage. The heaviest charring occurred to the cabinets and counter along the south wall. A V pattern displaying charred holes in the cabinets indicated upward and outward burning. At the center of this pattern was the kitchen window which faced south, looking directly into the patio area under the deck. The beveled charring along the window frame and cabinet face was more prominent facing the window, indicating that the fire encroached from the patio area.

I examined the patio area under the deck. The patio was open to the south with 3 exterior walls making up the west, north, and east boundary. The west exterior wall contained a window that led to the front living room area. The north exterior wall contained the window that led to the kitchen. The east exterior wall was the wall of the garage. The east wall contained the power meter and power box.

Narratives

A "V" pattern on the east wall indicated upward and outward burning, with the lowest level of burning at ground level. The depth of char was greater on the east wall as compared to the other walls. The power box which contained the meter and circuit breaker panel was located at the center of this wall. The metal casing of this power box was heavily oxidized with the meters bubble window burned completely away. The power box was still attached to the wall but leaning forward in a horizontal position. A shadow pattern on the wall showed the original location of the power box. The wood siding showed heavy charring on both sides of the meter. There was heavy beveled charring to the vertical seam of the siding immediately right and above the electrical meter location. This indicated that the fire progressed up and outward from the location of the electrical box. Approximately 2 feet to the right of the box was a heavily charred vertical hole that burned completely through the wood, exposing the garage interior. The top of the charred hole was at the southeast corner of the deck and the roof of the garage. At the base of this hole were remnants of a doggy door that led into the garage. Exposed electrical wiring just above the doggy door had the insulation burned completely away within the charred hole boundaries, however the metal wiring was not separated and I could see no signs of arcing.

On the garage roll-up door exterior wall facing south was charred remnants of an exterior light fixture. Beveled charring on the corner of the wall indicated that the fire encroached from around the corner and from the direction of the east wall. Burn patterns on the wooden fence below also showed that the fire encroached from the location of the east wall, making it unlikely that the fire started at the light fixture.

To the left of the power box was exposed wiring that draped along the north wall. The insulation had burned away but the wire was still in tact. Comparing this wire location to other wiring in the neighboring town homes, this wire was most likely communication cable.

To the right of the power box was exposed charred wiring that fed into vertical conduit directed to the ground. Comparing this wire location to other neighboring town homes, it is most likely this wiring was attached to an irrigation timer that was mounted to the wall just right of the power box.

I examined an extension cord that was draped along the wood fence next to the burn area. The top side of the cord was charred but the electrical cord itself was not plugged into any outlet.

I examined the heavily charred remnants on the ground at the base of the east patio wall. The contents included patio chairs, table,melted plastic, planters, and a 5 gallon propane bottle. The propane bottle was approximately 2 feet to the right of the doggy door around a small corner. The bottle appeared empty with nothing connected to it's regulator.

Power Box Collection:

To avoid further damage to a potential heat source, I decided to collect he power box which contained the meter and circuit breaker panel from the area of origin. Firefighters Sean O'BRIEN and David BLONDFIELD cut the power box from the wall at the cable stem and carefully placed the meter in a black plastic bag. I transported the meter to

Narratives

Station 3 and secured the meter in the downstairs Fire Prevention storage room. Collection documented by photographs.

On 7/28/14 at approximately 0700 hours I contacted Inspector Jennifer Donohue to perform a secondary cause and origin investigation. Her conclusion placed the area of origin in the same area as mine. See attached supplemental.

Interviews:

Immediately on scene during the initial investigation response (7/27/14), I was directed to one of the rescuers, Jack KIDD. KIDD said he was driving home when he saw the fire coming out of the top balcony at the above address. KIDD said he heard screaming and ran to the front of the residence but the security door was locked at the front door entrance. He attempted to break the window by the door with a brick, but it would not go through. He ran to the side window but he said the fire and heat coming from the patio and balcony area was too much. He ran back to the door and found that another neighbor (later identified as Lorraine GARCIA) made entry and was attempting to pull victim Michelle SHERMAN out of the residence. KIDD said he helped grab the victim who was located at the bottom of the stairs and helped pull her out to the street. He said the victims skin was badly burnt and peeling off as they tried to pull her. GARCIA pulled off her shirt and placed around the victim.

Reno Police Department Sgt. CLARK was on scene with several officers. He informed me that RPD received several written statements from first witnesses Lorraine GARCIA, Jack KIDD, and Sara NELSON. Please refer to RPD report 14-14273.

On Monday, 7/28/14 @ approximately 0800 hours, at the scene, I interviewed and took a written statement from neighbor Martin DANSBY. DANSBY said that he was home at 7654 Rhinestone Circle when he heard screams for help. He noticed fire from under the 2nd floor bedroom deck,, burning up the exterior wall. He said he ran to the front door and it was locked. He and other neighbors got the door open and pulled Michelle to the street. He said he attempted to go back in to check for other victims but only made it halfway up the stairs because of the heat and smoke.

On Tuesday, 7/29/14, I interviewed the victims husband, Paul SHERMAN, via his daughters cell phone (775-671-4571). The following is what he said:

Paul had left earlier in the day on bus to Stanford for medical treatment. He typically would spend the night there prior to his appointment the next day. He said that Michelle typically watched television upstairs in the master bedroom between 10 and 11 p.m. Paul said Michelle was deaf and just had a hearing device surgically implanted. He also said it affected her balance and she was not very mobile. Michelle smoked approximately one pack of cigarettes a day, but she very rarely smoked outside on the deck or on the patio. Usually she would smoke in the bedroom or living room. Michelle did not cook a lot. Food was typically microwaved. The skillet on the stove top was generally just stored on the stove top. When asked about the propane tank on the patio, Paul said it was empty. They did not have a BBQ there. Paul said pretty much all that was under the deck was patio furniture and planters. He could not recall any stains or other potential heat sources. He did

Narratives

say that they had a problem with the exterior power box and that NV Energy was there approximately 3 - 4 months prior to fix it.

On Tuesday 7/29/14 I interviewed Allison ROGERS from the Sacramento Coroners Office. She informed me that victim Michelle Sherman Byrd had passed away that morning at 04:12 hours. ROGERS informed me that SHERMAN had [redacted]. ROGERS also informed me that SHERMAN had [redacted].

On 08/01/14 I interviewed Brandon BARKHUFF with NV Energy. Branden said that NV Energy was last at that address on October 12, 2013 for a service call to light the pilot light for the furnace. The gas serviceman noted that the heat exchanger was cracked so he disconnected the furnace and issued a hazard tag for the occupant to fix. NV Energy was never called back. The Analog meter was exchanged for a SMART meter on August 21, 2012.

On Wednesday, August 6, 2014 at approximately 1242 hours, RFD Fire Inspector Jennifer DONOHUE (Fire Investigator) was contacted by Private Fire Investigator Don PERKINS with Fire Cause Analysis. Mr. PERKINS told DONOHUE that he was hired to investigate the Rhinestone fire and requested to see the electrical panel. DONOHUE and PERKINS met at Reno Fire Station 3 where upon he took photographs. After photographing the equipment, exterior only, the equipment was returned back to a secure area. Mr. PERKINS left his card, with the time and date, with the equipment and requested he be contacted if/when any testing or manipulation of the equipment was scheduled.

On Tuesday, 08/12/14 I was contacted by private fire Investigators Don PERKINS and Dwayne LEMMONS. I met with both investigators at the above address where both investigators were conducting a post fire scene investigation outside. LEMMONS informed me that he was working for the insurance company that represented the home owners association. PERKINS informed me he was working for NV Energy. Both had collected several items from their dig out. I answered questions that they had regarding the night of the fire. I also informed them that much of the debris that was now on the ground around the patio came from the deck and master bedroom from firefighter suppression and overhaul activities. No entry was made into the structure during my presence. Both investigators indicated the area of origin to be in the patio area.

On Wednesday, 08/13/14 I interviewed Lorraine GARCIA via phone (775-622-8199). The following is what she said:

GARCIA said she had just returned home from work when she heard screaming for help. At first she could not see anything but then she saw flames coming from the above residence. GARCIA said she ran over to the location and saw tall flames coming from the upper exterior garage wall in the area of the air conditioning unit outside the second story deck and bedroom. She said at that point she did not think that the actual deck was on fire. She also did not notice fire in the patio area but did say there may have been smoke along the garage wall. GARCIA said she ran to the front door where she saw Michelle lying on the floor. Her head was on the ground and her feet were on the stairs. The pictures on the

Narratives

wall were knocked off suggesting to GARCIA that Michelle had come from upstairs. GARCIA said the solid door was open, but the security door was still locked. GARCIA was able to reach through a "dog" door to unlock the door. GARCIA said that at that time she could see smoke in the kitchen, but she did not see flames. GARCIA attempted to pull Michelle out but her burnt skin rolled off. GARCIA took off her shirt and wrapped it around Michelle for traction. GARCIA and the other witnesses on scene extricated Michelle from the house.

GARCIA said she knew Michelle and Paul as neighbors but was not familiar with their habits. GARCIA did say that she would see Paul at the Rainbow market quite a bit purchasing hot dogs. She said they never cooked, and thought one of them told her their oven had been broken for about 6 months. She suggested that I talk to friend Colleen TIMM.

On Wednesday, 08/13/14, I spoke with Colleen and Keith TIMM via telephone. The following is what they said:

TIMM's used to live directly across the street from the SHERMAN'S and were friends (4 years). They recalled only a patio table and chairs in the patio and some planters. They said they could not recall any BBQ and stated that they remember seeing the old BBQ thrown in the trash months ago. Keith said that the propane tank in the front yard was left over from that. They said that both Paul and Michelle did smoke, but they never saw them smoke in the patio area or on the deck. Paul would usually smoke in the driveway outside. Colleen said that Michelle was deaf and had surgery for a hearing implant that gave her real bad vertigo. When asked about any electrical or mechanical problems around the house, Colleen said that Michelle would complain about the house getting old and things falling apart. She said that they had an old water furnace that broke last summer. They were not sure about anything else, but did say that there was a private commercial utility truck there quite a bit within the last 4 months. They did not know what company it was, but did say it was not NV energy.

On Thursday, 08/14/14, at approximately 1400 hours I met with Insurance Investigator Dwayne LEMMONS who had requested to photograph the collected electrical panel. I met LEMMONS at Station 3 and removed the electrical box from the locked room and placed it on a table. LEMMONS photographed the panel from the exterior as I watched. I took photographs as well. No closed components were opened or adjusted. Upon completion of the photographs I placed the panel into a box and secured back into the Fire Prevention storage room. Door to the room was secured upon my leaving.

Preliminary Conclusion:

All burn patterns indicate that this fire started at the patio along the east wall. The only known heat source at this time appears to be the power box which contained the meter and circuit breaker panel and electrical wiring next to it. Though the occupants smoked, it is unknown if Michelle or Paul may have discarded any cigarettes at the area of origin. No cigarette butts were found at the base of the exterior wall, and interviews with friends and the husband do not indicate a pattern of smoking or discarding cigarettes at this location.

Narratives

The power box which contained the meter and circuit breaker panel will be held until an electrical engineer can analyze.

This fire investigation is on-going.

Narrative Name	Inspector 1 supp
Narrative Type	Incident
Narrative Date	14:55:41 Tuesday, August 19, 2014
Author	6466 - PALMER, Tray L
Author Rank	FPC
Author Assignment	3
Narrative Text	On 8/18/14 @ 15:50 hours, I spoke with Paul SHERMAN via telephone 671-4571. I was returning Mr. Shermans call with questions regarding the fire. The following is what SHERMAN said:

SHERMAN said he had left the house at approximately 1630 hours the day of the fire en route to Stanford via bus for medical treatment. He said he stayed at the Stanford Medical International Hostel. He called Michelle at approximately 2100 hours and last spoke with Michelle at that time with nothing said out of the ordinary. SHERMAN said before he left he took the garbage out and placed it by the cans across the street. He did not recall anything in the patio area except for the patio furniture, planters with unkept plants, and some foot cream which was on a little stand by the dog door. SHERMAN said that they never used the patio because of Michelle's health problems, and that the furniture there was neglected.

When asked if he smoked in that area prior to leaving for Stanford SHERMAN said no. Again, he said Michelle only smoked in the bedroom and did not discard cigarettes or smoke on the deck or patio.

SHERMAN said Michelle normally slept with the balcony door open so that the dog could go outside on the deck.

I again asked SHERMAN about any problems that he may have had with utilities. He acknowledged that NV Energy came out to light the pilot light, but said they lit the pilot light on their furnace in 2013. The furnace was brand new to replace a broken one. I asked if anybody else worked on the power meter or their electrical. He again said that he thought NV energy was out there about 4 months ago but then said he was not sure if it was NV energy or the phone repairman. He said the only problems he could recall that required serviceman to come out was the furnace and a phone line that was not working right. He also acknowledged that someone had been out to repair his satelite dish for television. He said because of his medical problems and various other stressful issues that ocurred in the past months he could not recall exact dates.

08/21/14:

I was contacted by Duane LEMMONS, Fire Investigator representing the Homeowners Insurance Company. LEMMONS requested that their electrical engineer look at the exterior of the power box. At approximately 0930 hrs I met with LEMMONS and Nicholas CORBO from Forensic Engineering at RFD staion #3. Also present was Reno Fire

Narratives

Department Fire Investigator Scott SHIELDS..The The power box which contained the meter and circuit breaker panel was taken out of lock up and placed on a table. CORBO took some pictures from exterior, and briefly visually examined the exterior without touching. The power box was re-secured and placed back into lock-up by myself and RFD Investigator Scott SHIELDS.

08/22/14:

I was contacted by NVEnergy Claims manager Jim DeFRETES who was returning my call regarding a question about the time line that the meter lost contact. DeFRETES said that they had recorded loss of contact at approximately 23:00:49 (approximately 48 seconds after time of alarm).

Narrative Name	Inspector 1 supp 2
Narrative Type	Incident
Narrative Date	10:01:10 Thursday, August 28, 2014
Author	6466 - PALMER, Tray L
Author Rank	FPC
Author Assignment	3
Narrative Text	

Wednesday, 8/27/14 @ 10:00 hours:

Electrical engineer Andrew THORESEN (Oracle Forensics), hired by City of Reno, conducted an evaluation of the electrical meter and power box collected from 7625 Rhinestone Circle. Also present at the examination were the following:

Tray PALMER, Captain, Reno Fire Department
Jason O'NEAL, Fire Inspector, Reno Fire Department
Jeff DONAHUE, Fire Marshal, Reno Fire Department
Robert KING, Fire Marshal, Sparks Fire Department
Chris McCUBBINS, Assistant Fire Marshal, Sparks Fire Department
Donald PERKINS, Private Fire Investigator, Fire Cause Analysis (working for NVEnergy)
Brandon BARKHUFF, NVEnergy Attorney
Jim DeFRATES, NVEnergy Claims Manager
George HOGGE, Electrical Engineer, EFX (working for NVEnergy)
Anne JACKSON, Electrical Engineer, Sensus (manufacturer of meter)
Scott HOVEY, Legal Counsel, Sensus
Doug RANDS, Attorney for husband of victim
Brett SOUTH, Attorney for husband of victim
Mark HARRIS, Electrical Engineer, Public Utility Commission of Nevada
Jason WOODRUFF, Electrical Engineer, Public Utility Commission of Nevada

In a systematic manner, THORESEN carefully dismantled the power box containing the meter and circuit breaker panel to evaluate the components. All above parties were allowed to witness the examination and take photographs. After THORESEN completed each step of the evaluation, the other electrical engineers present were allowed to examine and photograph the evaluated components under the supervision of THORESEN. The Reno Fire Department video taped the evaluation of the power box from the Rhinestone

Narratives

incident using a Sony HDR-CX240 handycam.

NVEnergy and SENSUS did not provide an exemplar, however SENSUS electrical engineer Anne JACKSON was able to identify meter components and describe meter layout and function when requested by THORESEN.

During the examination it was discovered that the NVEnergy fire investigator Don PERKINS and the insurance investigator Duane LEMMONS had collected some pieces under the power box location at the fire scene during their post fire investigation. It was also discovered that LEMMONS had procession of these items. I contacted LEMMONS who brought the pieces to Station 3 at approximately 13:45 hours. THORESEN completed his evaluation of the Rhinestone circle meter.

Upon completion of the Rhinestone power box evaluation, THORESEN evaluated 3 other meters. The second meter is referred to as the Arletta meter and was collected by the Reno Fire Department on 6/11/14 at 160 Arletta street (refer to report # RFD14-16019).

The third meter, referred to as EL Cap meter, was collected by Sparks Fire Department on June 12, 2014 at 4742 El Cap Court. Please refer to Incident # SFD1404399.

The fourth meter, referred to as Windswept meter, was collected by Sparks Fire Department on June 11, 2013 at 7255 Windswept Loop. Please refer to Incident # SFD1304099.

I refer to these other 3 meters that were evaluated because the meters examined indicate a common burn pattern. Please refer to the Sensus Meter evaluation report provided by Oracle Forensics (attached)..

08/28/14:

I received a call from Jason Woodruff of the PUCN. He said that the hired company SCOPE who put in the meters took pictures before and after install of each address. I requested a copy of these pictures for 7625 Rhinestone Circle through NV Energy Claims Manager Jim DeFRETES.

08/29/14:

I received a copy of the requested photographs from Brandon BARKHUFF showing the previous meter and new meter install. From earlier interview this took place on 8/21/2012.

09/02/14 @ 0742 hours:

A formal request for dispatch records and audio recording of the fire incident was ordered by me via email.

09/05/14:

A request for a data log showing the SMART meter transmissions from the above incident

Narratives

was requested to DeFRETES and Brandon BARKHUFF to verify time and sequence of transmissions. The transmission log was provided by NVEnergy and forwarded to electrical engineer Andrew THORESEN to review.

09/07/14:

I requested from Jim DeFRETES and Brandon BARKHUFF via email a phone number to the SMART meter monitoring station so that I can compare their real time at the monitoring station versus the real time at Reno Fire Department dispatch.

09/08/14:

I received an e-mail from Brandon BARKHUFF to answer the above question which stated the following:

- The time communication reported on the report for Rhinestone Circle was registered from the meter at the TGB (Tower Gateway Base station).
- The TGB is linked to a GPS monitoring system which sets the time for the TGB's
- The GPS system is linked to several atomic clocks (i.e. NIST) to verify the times
- There are also clocks within the meters themselves that synchronize to the TGB time signal
- The TGB communicates with the meter every 15 minutes to verify date and time setting, using the same GPS/Atomic clock timing discussed above

09/08/14:

I contacted electrical engineer Andrew THORESEN via e-mail regarding the updated information on the SMART meter transmission times. THORESEN reported that the time line of the transmission loss makes the meter less likely given the duration of time it transmitted. He noted that if the SMART meter was synced with the City of Reno dispatch center it transmitted 49 seconds after the fire is called in, not 49 seconds after ignition. He stated the transmitter was probably still working for at least a minute or so post ignition — which again makes it less likely for a meter fault to be the cause of fire. However, he also cannot absolutely rule the meter out as a cause and suggested to do so a comparison test would have to be performed on a like live meter to show failure time of the transmitting device upon meter ignition.

9/9/14:

Dispatch Supervisor Erin YEUNG from City of Reno Emergency Communications verified that the Tiburon system (software used for dispatch) is linked with the atomic clock.

FINAL CONCLUSION:

Narratives

All burn patterns indicate that this fire started at the patio along the exterior east wall of the above residence. The only known heat source at this time appears to be the electrical power box and electrical wiring , including an irrigation timer, within its proximity. Though both occupants smoked, neither occupant smoked or had a habit of smoking or discarding cigarettes in or around the area of origin.

Because there is a probability that the fire originated in the meter or power breaker box found in the area of origin, a forensics electrical engineer was brought in to examine the power box and its components. The following is what Andrew THORESEN reported in the conclusion of his report:

"Based on the physical evidence in the Rhinestone matter, the Sensus meter cannot be eliminated as the ignition source. The meter displays extensive fire damage within the meter socket enclosure. Additionally, the electronic components associated with the meter display heavy fire damage and arcing. There was also a lack of arcing found downstream of the meter. This data tends to suggest the meter (Rhinestone) may have failed. Conversely, all of the fire damage and arcing within the meter / meter socket enclosure could be explained if an approaching fire ignited the plastics associated with the meter very early in the fire. Extensive analysis of the fire scene and electrical system associated with the condominium (to look for arcing downstream of the meter) would be needed to determine if the meter failed to any probability. "

THORESEN also noted that the 49 second time line between the time of alarm and loss of meter communication makes it less likely that the Rhinestone meter was the cause of the fire. However, common characteristics found with this meter and 2 other meters that were examined on 8/27/14 also suggest the possibility of a common failure mode. Please see attached report from Oracle Forensics.

The evaluation of the Rhinestone meter was not conclusive. The cause of this fire is undetermined.

End of Report

RENO FIRE DEPARTMENT
Follow-Up/Supplemental Report

Follow-up:	X	Supplemental:	
RFD Case:	RF14-20009		
Date:	07/27/2014	Orig Rpt Date:	
Original Crime:		Change Crime:	

Incident Address: 7625 Rhinestone Circle

Narrative:

On Monday, July 28, 2014 at approximately 0710 hours, I, Jennifer DONOHUE (Fire Investigator) was contacted by Captain PALMER and requested to respond to 7625 Rhinestone Circle. I acknowledged and responded.

At approximately 0730 hours, I arrived at 7625 Rhinestone Circle and made contact with Captain PALMER and Engine 6 crew. At that time, Capt. Palmer informed me that this was a scene of a structure fire that occurred the previous night. Capt. PALMER asked that I examine the scene and report my impressions/opinion.

I began by observing the structure from the exterior. The fire occurred at a multi-family, wood-frame, two story, residential occupancy. There appeared to be heavy fire damage at the exterior patio, adjacent to the garage, as well as the second floor balcony.

While outside, I met with Capt. DIANI of Engine 6 (as Engine 6 was the first arriving suppression crew). Capt. DIANI told me that when Engine 6 arrived, they found heavy fire at the exterior of the structure, on the first floor near the garage. He said that the fire was rapidly extending up the exterior of the home to the second floor balcony and was lapping into the windows and eves of both the first and second floors.

I then entered the structure. Smoke and heat damage was visible upon entering the front door. Smoke, heat and fire damage appeared to increase towards the kitchen on the first floor and towards the master bedroom on the second floor.

I first went upstairs and could not locate any smoke detectors. I followed the increasing smoke and heat damage to the master bedroom. The bedroom suffered moderate to severe smoke, heat and fire damage. The heaviest damage appeared to be to the south and east areas of the room. The walls and objects in these areas exhibited more fire damage and the observable burn patterns indicated that the fire entered from this area. I examined the second floor balcony which appeared to sustain heavy fire

damage. Both the top side and underside exhibited charring and the charring appeared heaviest at the underside of the balcony.

I then went downstairs and followed the fire patterns, to the kitchen where the fire damage appeared most severe. I observed the most severe damage to be around the (south) kitchen window and along the ceiling. I observed areas of calcinations along the ceiling and adjacent walls. The cabinetry and other combustible objects nearest the kitchen window appeared to be more damaged than other areas and objects within the kitchen. A wide area "V" pattern was visible and appeared to emanate from the area of the (south) kitchen window and extended along the adjacent cabinetry and the ceiling. The kitchen window looked out to the patio area, with the second floor balcony overhead. The area around the kitchen window sustained significant fire damage. A large, free-standing cabinet located to the right of the window had more fire damage on the side exposed to the window than the other sides. Based upon the charring around the window area, the wide range "V" pattern and the damage to the large free-standing cabinet, it appeared as though the fire had entered the kitchen from the exterior via the south window at the patio area.

I went outside and to the patio area. A "V" pattern was visible along the east patio wall (at the garage). The pattern extended outward and burned along the top of the wood fence. The wood fence appeared to have suffered more fire damage on the patio side rather than the driveway side. A larger "V" pattern was also visible along the west patio wall extending to the roof line of the home. Based upon the burn patterns in this area, the fire appeared to emanate from the east wall of the patio area (below the second floor balcony). The heaviest charring appeared to be located along the east wall.

I observed a shadowed area along the east exterior patio wall and later learned the meter and main power box were located in this area. At the time of my examination, heavily oxidized, fire damaged, metal outdoor furniture, shelving and what appeared to be a mattress were located near the patio area. I would later learn, upon inquiry, that the mattress came from the second floor master bedroom during overhaul activities and the metal outdoor furniture and decorative shelving was from both the patio and second floor balcony areas. It was undeterminable, at that time, exactly where the pieces were located during the fire.

During my examination, I was unable to locate any obvious heat source in the patio area. I later learned that the meter and main panel box had been removed and collected as evidence the night before. It would appear that the only competent ignition source in this area, along the east wall, was the meter and main panel box.

I reported my finding to Captain PALMER and was released from the scene.

RENO FIRE DEPARTMENT
Follow-Up/Supplemental Report

Follow-up:	X	Supplemental:	
RFD Case:	RF14-20009		
Date:	08/06/2014	Orig Rpt Date:	
Original Crime:		Change Crime:	

Incident Address: 7625 Rhinestone Circle

Narrative:

On Wednesday, August 6, 2014 at approximately 1242 hours, I, Jennifer DONOHUE (Fire Investigator) was contacted by Private Fire Investigator Don PERKINS with Fire Cause Analysis. Mr. PERKINS told me that he was hired to investigate the Rhinestone fire and was aware the Captain PALMER was on vacation and asked if I knew where the meter and panel box (from Rhinestone) were being held.

We agreed to meet at Reno Fire Station 3 where upon he took photographs. After photographing the equipment, the equipment was returned back to a secure area. Mr. PERKINS left his card, with the time and date, with the equipment and requested he be contacted if/when any testing or manipulation of the equipment was scheduled. I advised him that I would pass his request on to Captain PALMER.

No further. jmd

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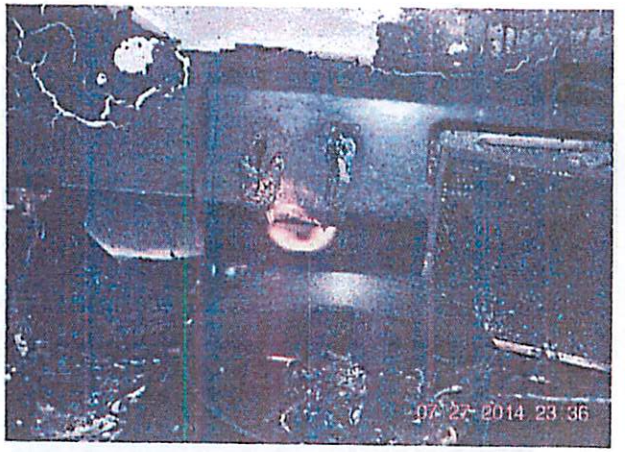
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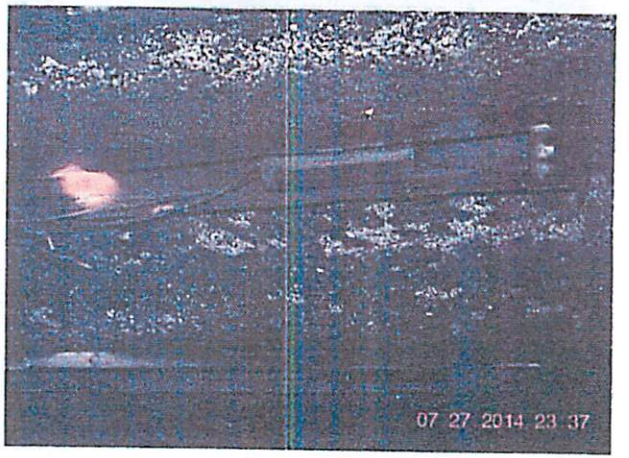
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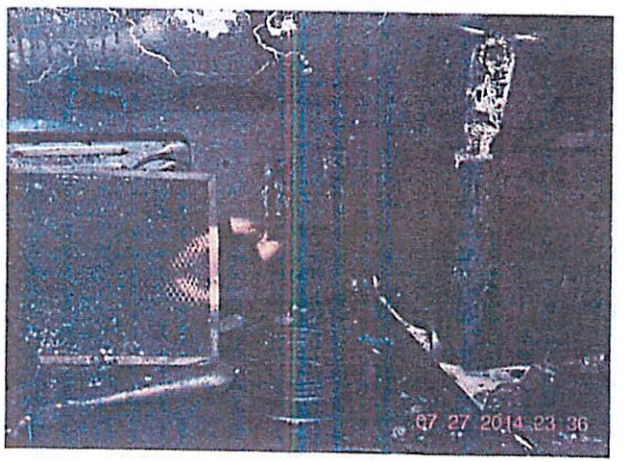
07 27 2014 23 35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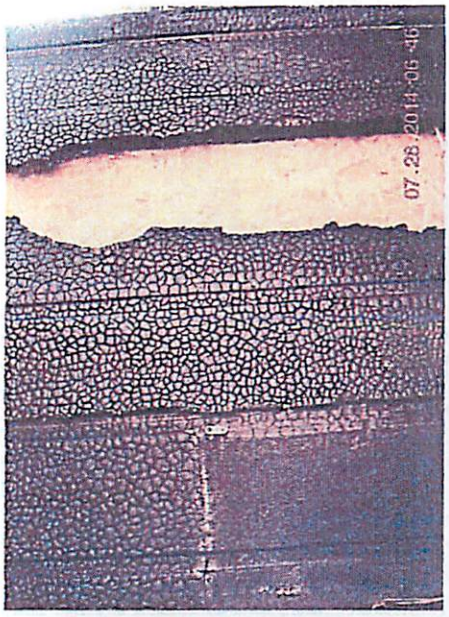

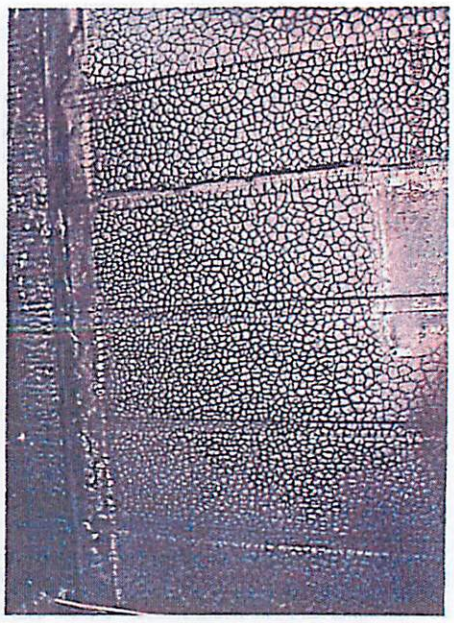
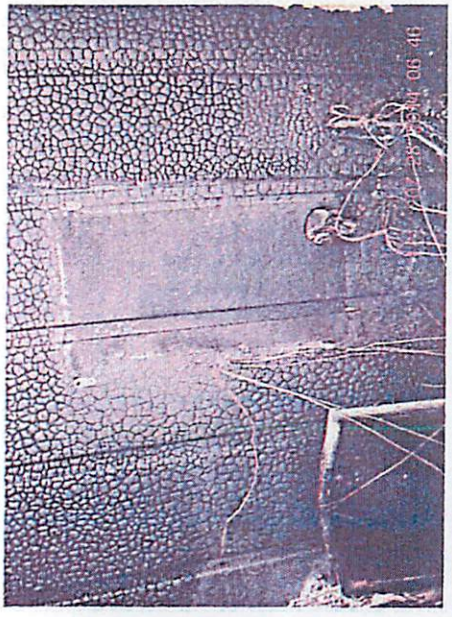
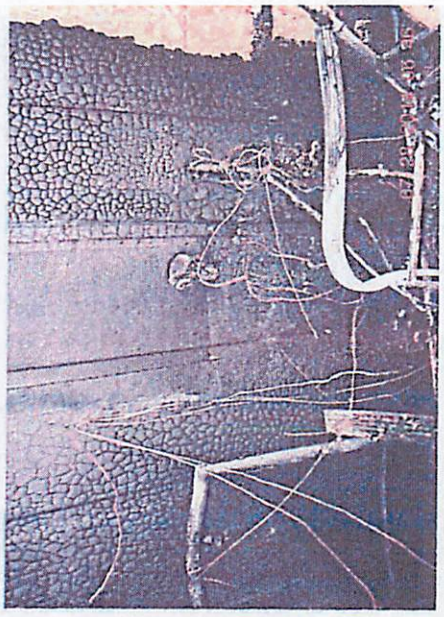

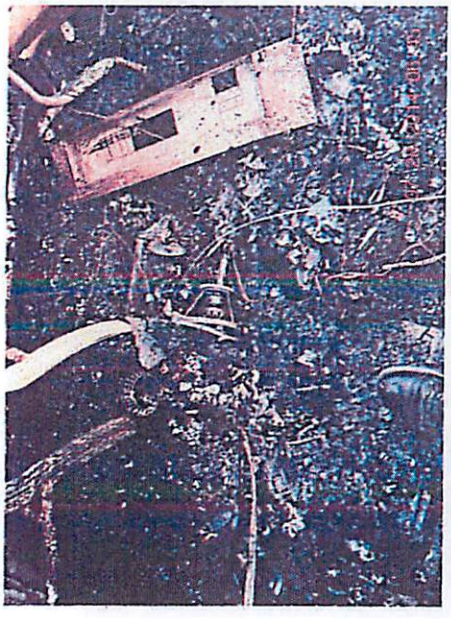
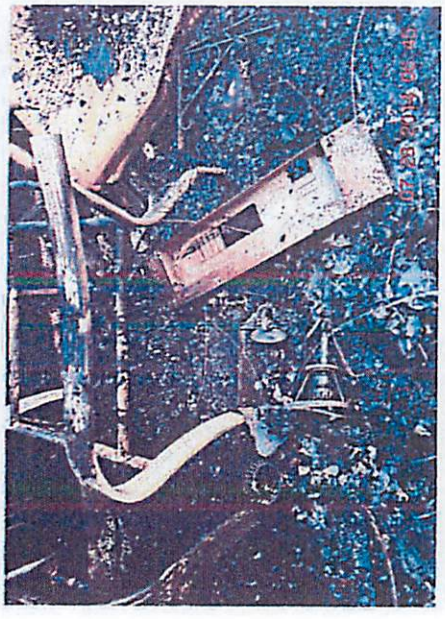
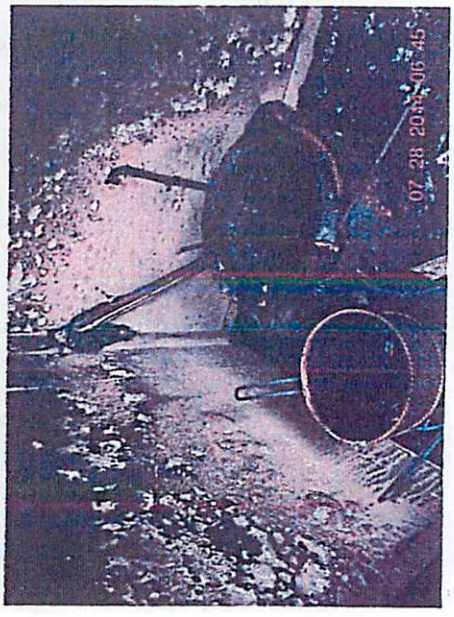

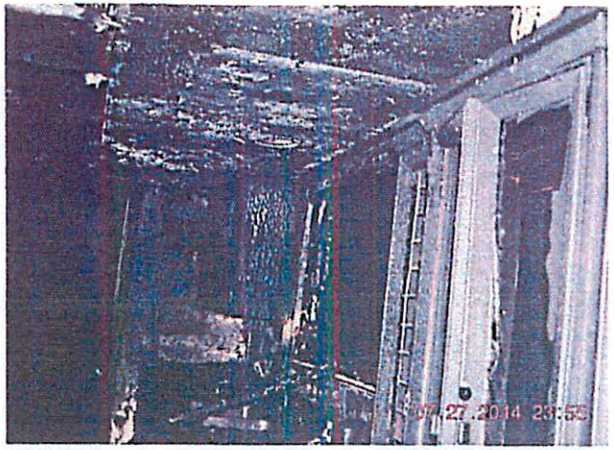

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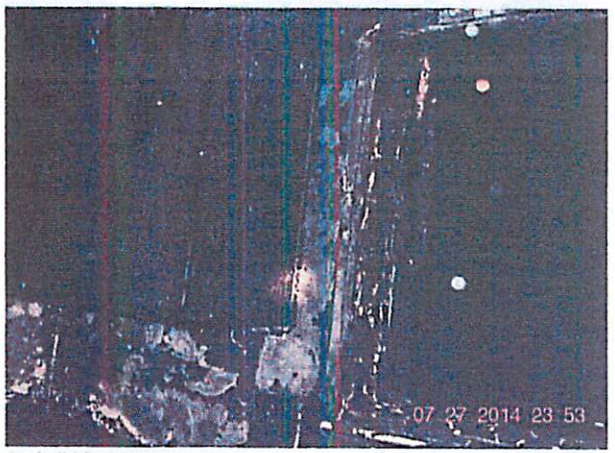
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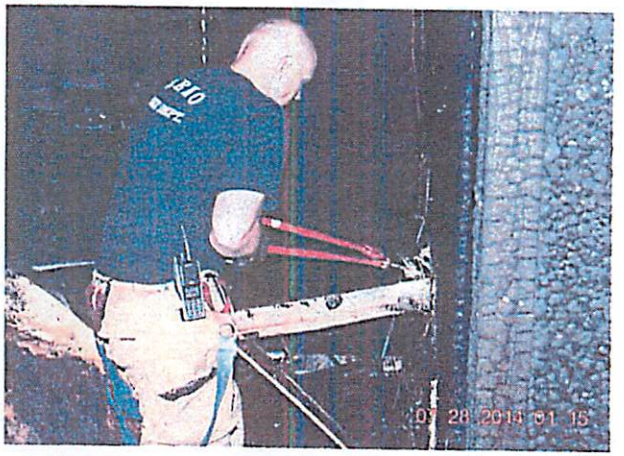
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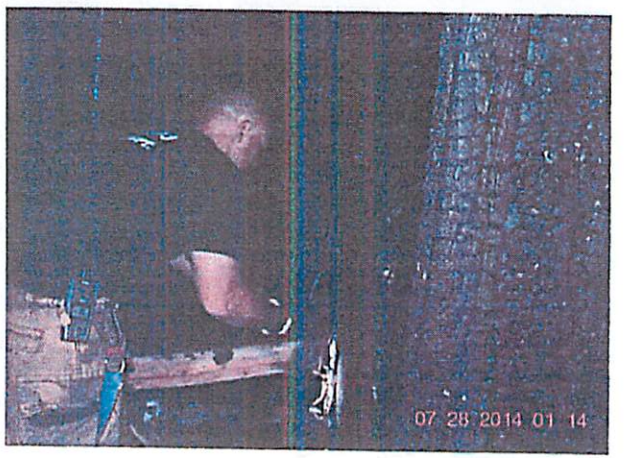
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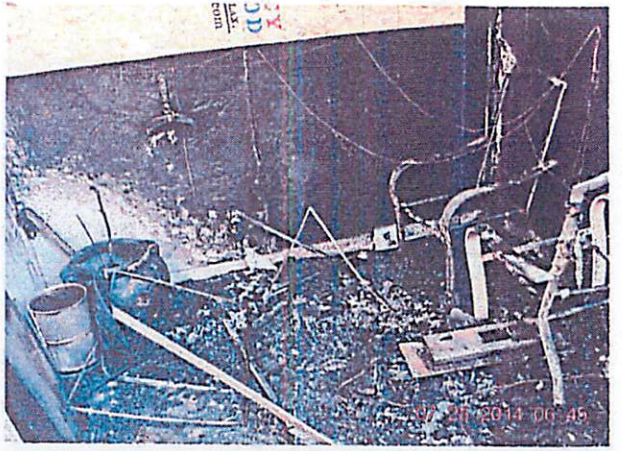
07.28.2014 06:45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EMERGENCY
FIRE & FLOOD
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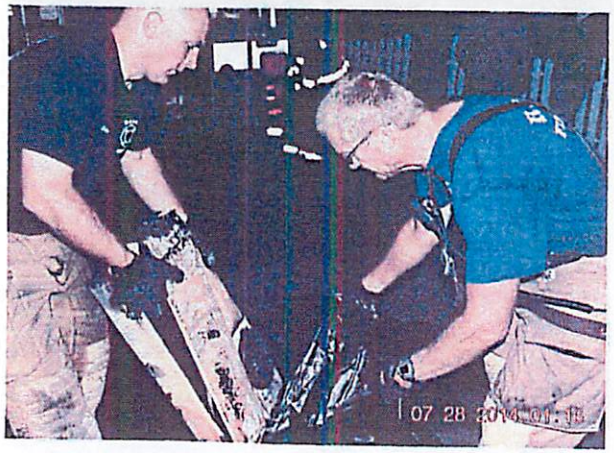
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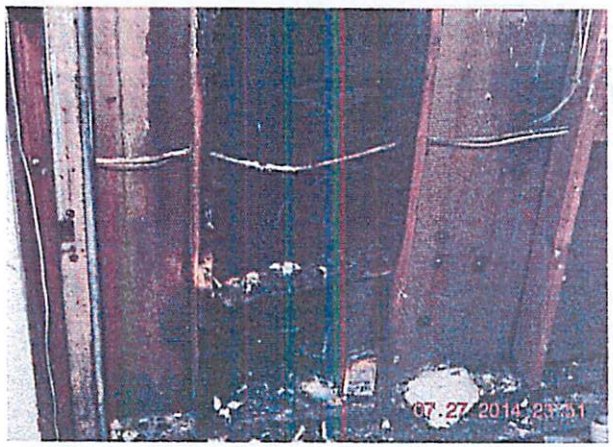
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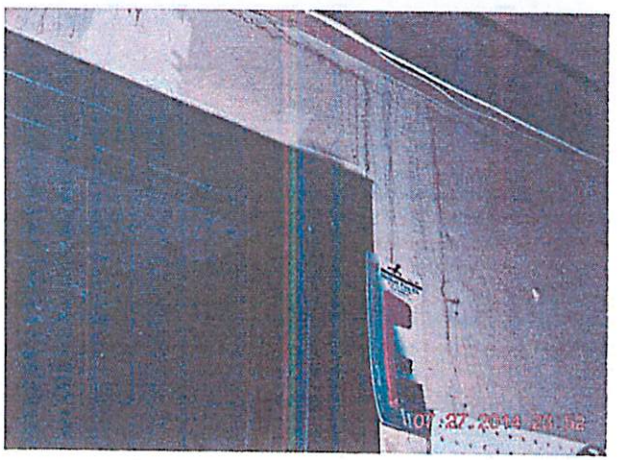
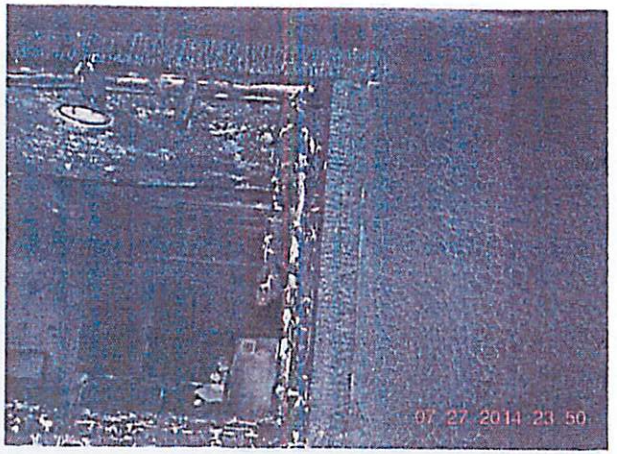
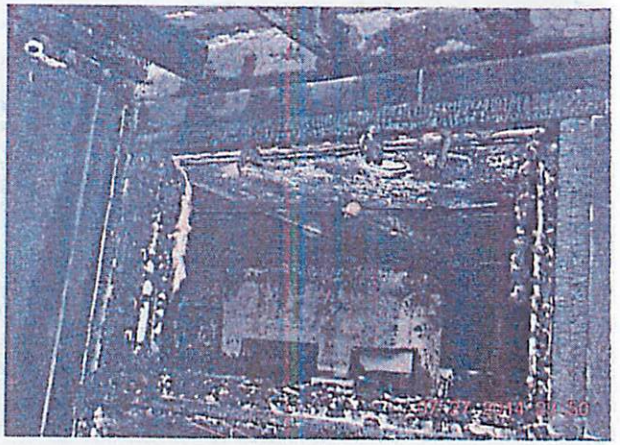




SOUTHEAST CORNER OF DECK

WINDOW TO LIVING ROOM



CHARRED VERTICAL PATTERN UNDER SOUTHEAST CORNER OF DECK

8/27/2014

City of Reno Fire Department
Attn: Captain Tray Palmer
palmert@reno.gov

RE: Sensus Meter Evaulations (Rhinestone, Arletta, El Cap, Wind Swept).
Oracle File: 20141350NV

Introduction:

The following report will detail the work performed to date on this assignment. All opinions are based on the information known to date. Oracle Forensics examined the evidence on 8/27/2014. Please note that three other meters (Arletta, El Cap, Wind Swept) were also examined on 8/27/14.

Data:

The evidence related to the Rhinestone matter consists of the service entrance panel and associated meter components. Figure 1 depicts the overall condition of the service entrance panel.

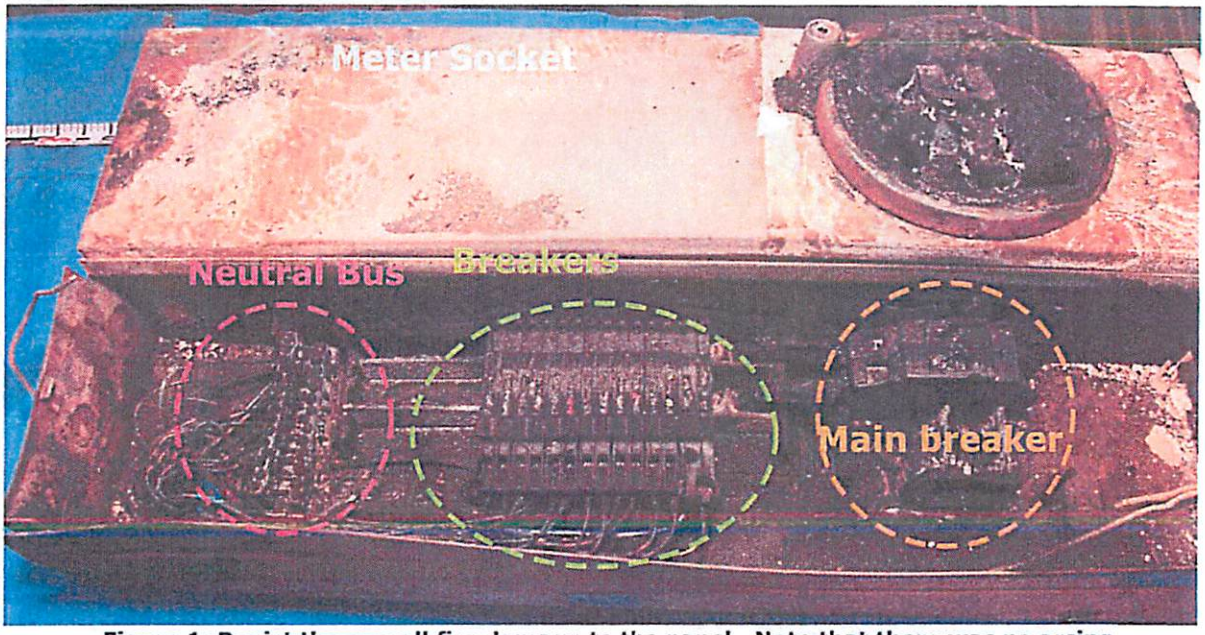


Figure 1: Depict the overall fire damage to the panel. Note that there was no arcing found within the panel, downstream of the meter.

Figures 2 through 4 further depict the overall fire damage to the service entrance section, arcing in the meter socket/meter remains and arcing to the service entrance conductor/panel at the bottom of the panel.

Figures 2 through 4: Depict the arcing within the meter socket enclosure, and the arcing to the bottom of the panel where the power entered the panel.

Figures 5 depicts the overall fire remains of the meter bus bars within the meter.

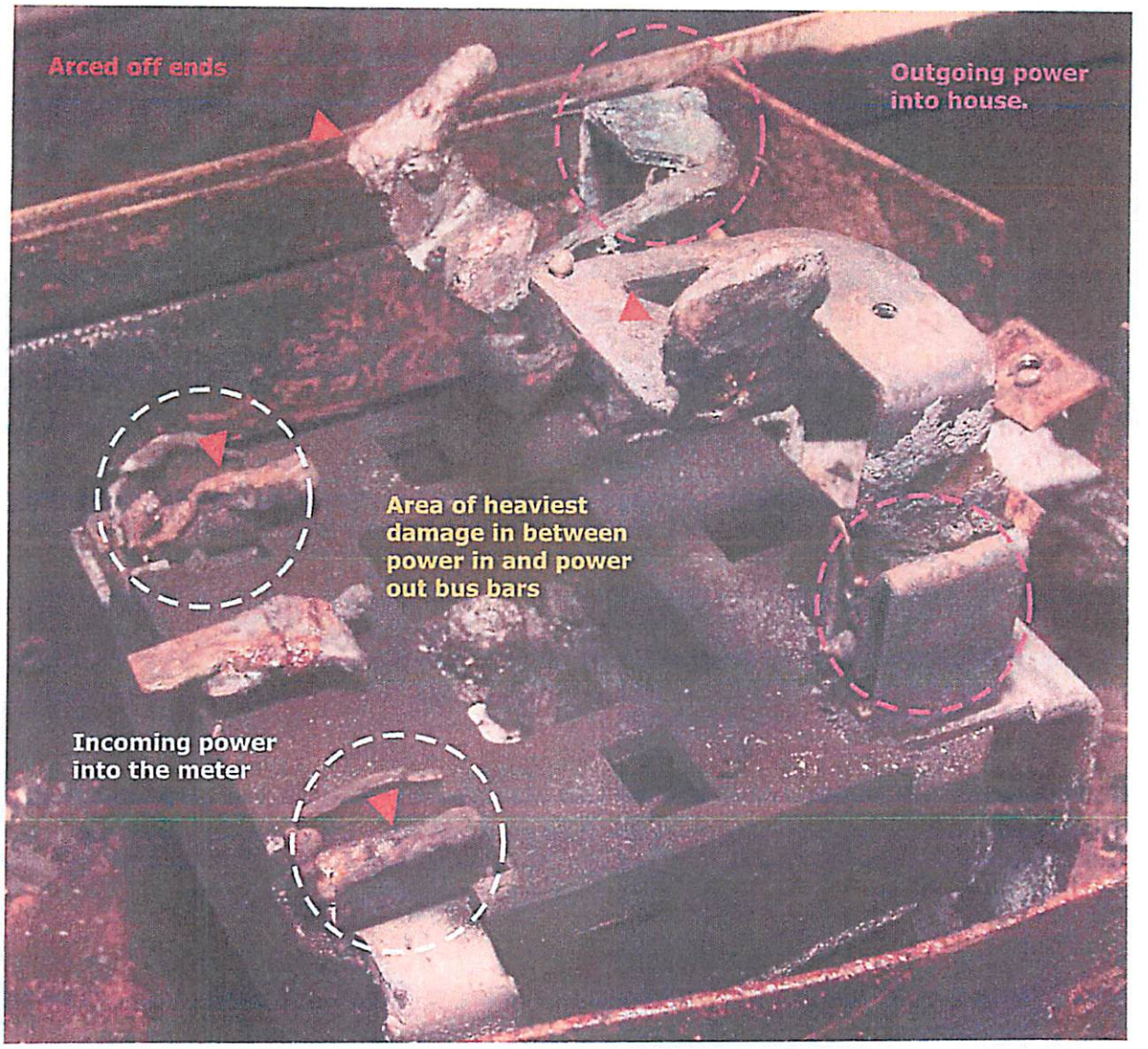
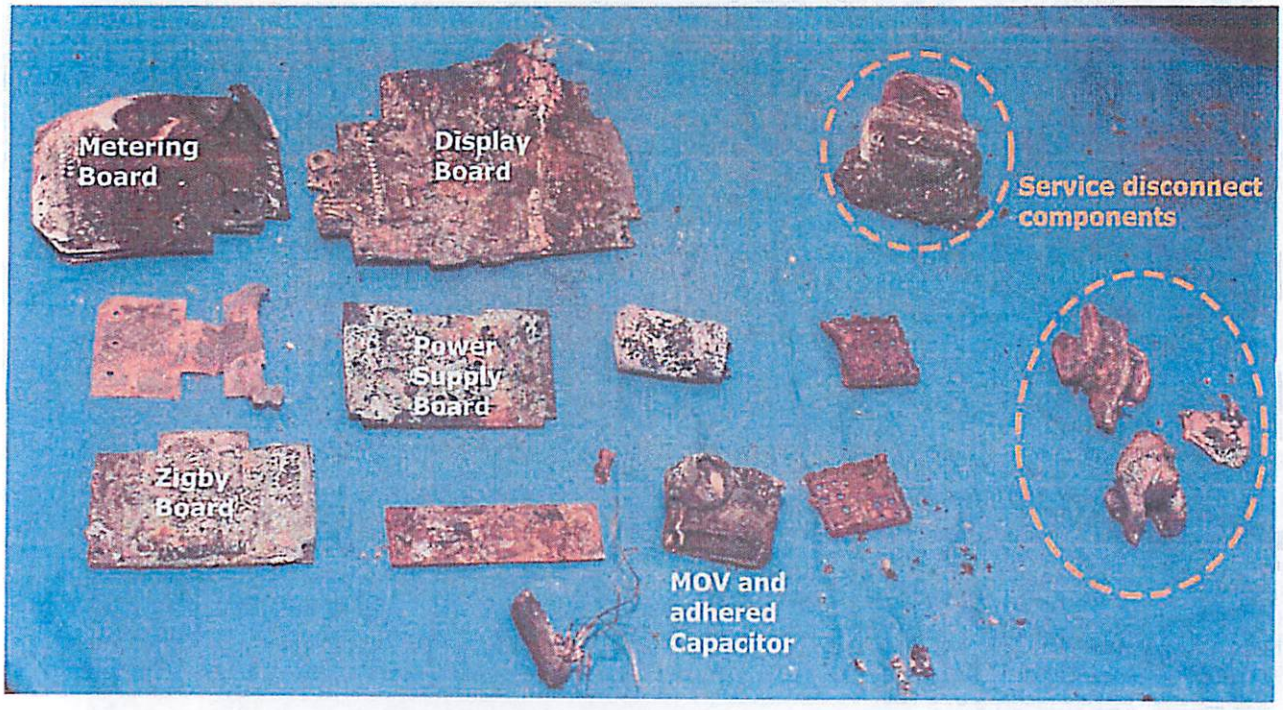


Figure 5: Depicts the overall fire damage to the meter remains within the socket enclosure. Please also note that the meter was adequately seeded into the meter socket enclosure.

Figures 6 and 7 depict the overall fire damage to the PCBs / electrical devices within the meter.



Figures 6 and 7: Depict the overall fire damage to the components associated with the meter.

Arletta Street incident

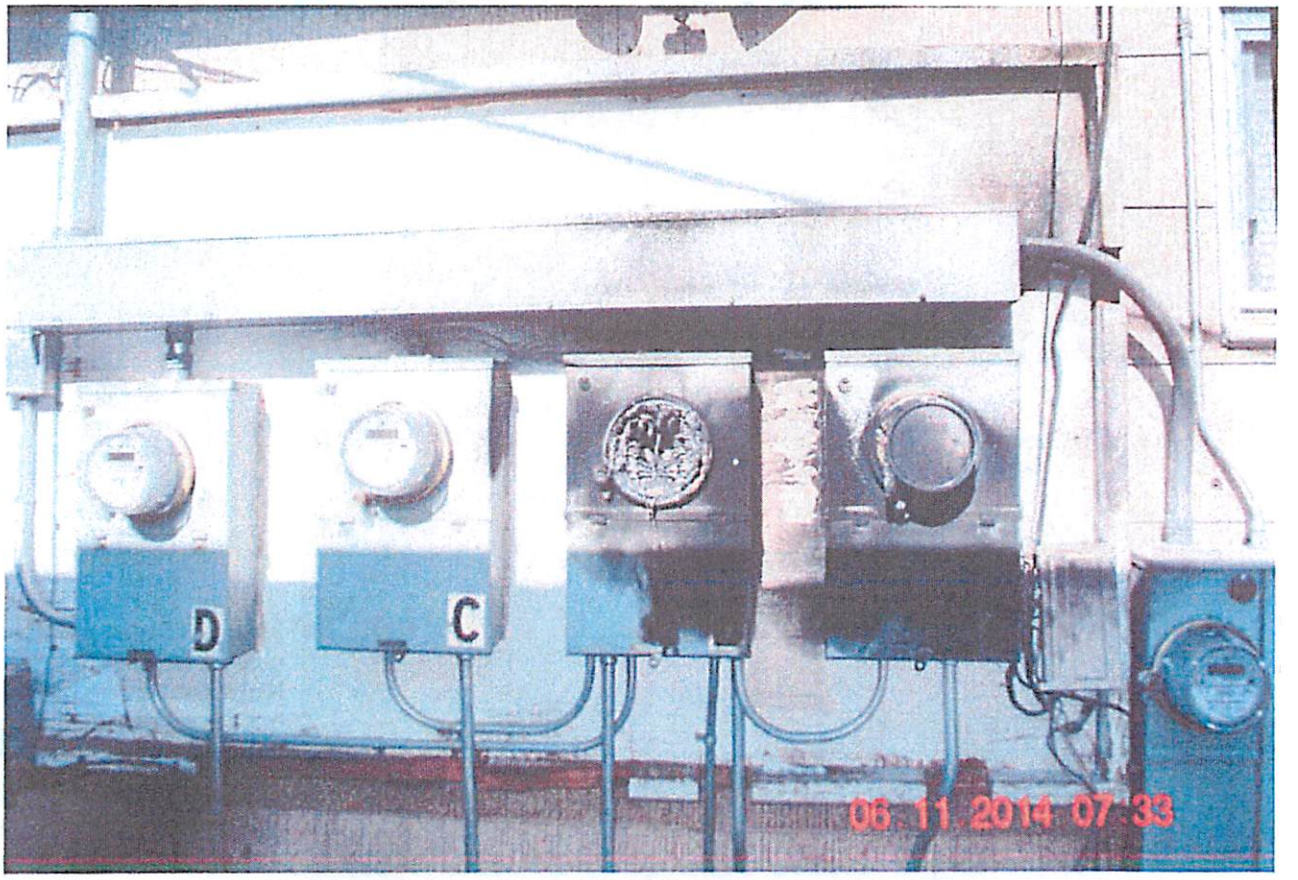


Figure 8: Depicts the localized fire damage to the meter in Apartment B.

The Arletta Street meter fire was also examined. The meter displayed similar characteristics to the Rhinestone meter incident with one main exception -- the majority of the bus bars were melted away/missing from the Arletta incident meter. Figures 9 and 10 depict the overall fire damage to the meter and associated electrical panel.

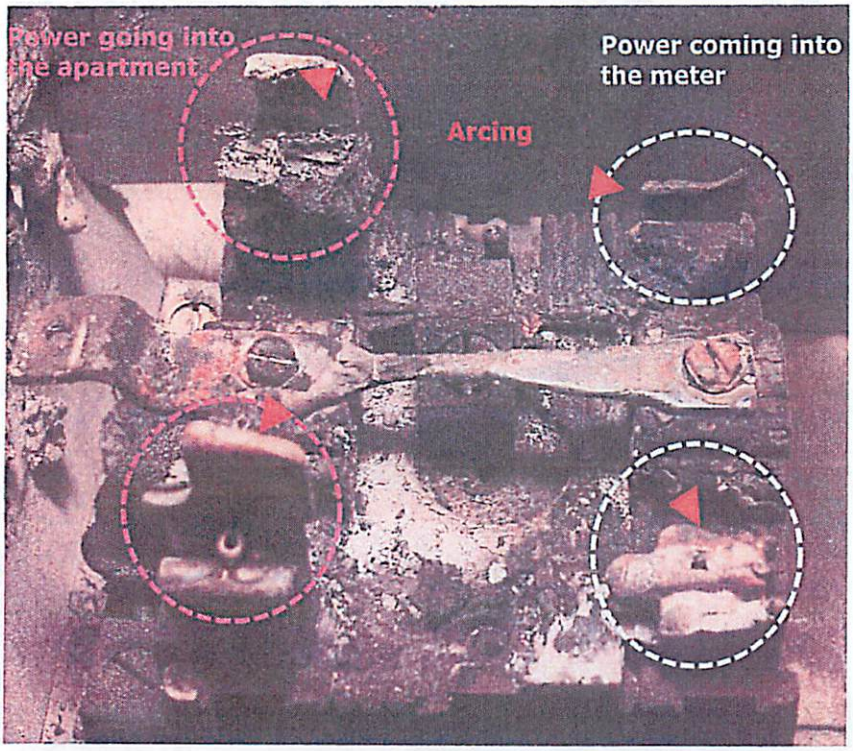


Figure 9: Depicts the meter remains within the meter socket enclosure.

Figure 10: Depicts the circuit breaker panel. Note that none of the breakers are in the tripped position.

The meter associated with the Arletta Street meter fire was fully seeded into the electrical socket. Additionally, the electrical disconnect portion of the meter displayed extreme melting. See Figures 11 and 12.

Figure 11 depicts the blades associated with the meter which are fully seeded into the socket enclosure.

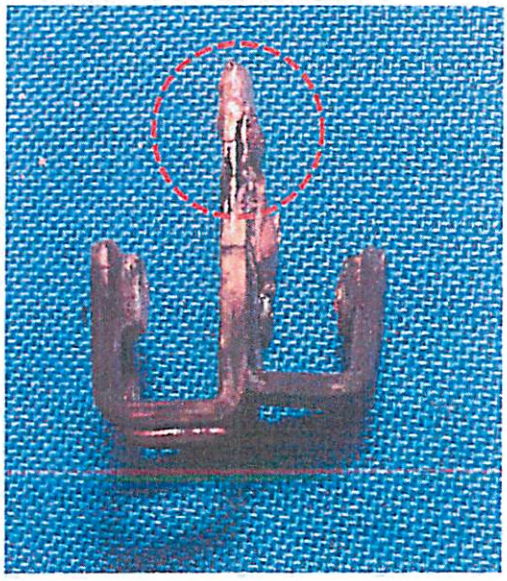


Figure 12 depicts the electrical bus bar associated with the electronic service disconnect. Note the heavy melting to the bus bar.

Analysis of Data:

1. In each case ---the Rhinestone matter, the Arletta matter, the El Cap matter (Appendix A), and the Wind Swept matter (Appendix B) --- the service disconnect displayed the most consistent electrical damage within the electrical Sensus smart meter (See Figures 6, 7, and 12). In each case, the bus bars associated with the electronic service disconnect displayed extreme melting.

2. Additionally, in each case (Rhinestrone, Arletta, El Cap, and Wind Swept), the load side electrical blades were intact, while the majority of the fire damage was around the electronic disconnect/line side blades. See Figures 5 and 9.

3. The fire and electrical damage to each of the printed circuit boards, MOVs, and capacitors varied extensively meter to meter. Therefore, nothing conclusive was learned from the examination of each of these devices.

4. All of the Sensus meters displayed blades that were fully inserted into the meter socket enclosure, eliminating "hot plugging" as a potential cause of the fire(s).

Conclusion:

Based on the physical evidence in the Rhinestone matter, the Sensus meter cannot be eliminated as the ignition source. The meter displays extensive fire damage within the meter socket enclosure. Additionally, the electronic components associated with the meter display heavy fire damage and arcing. There was also a lack arcing found downstream of the meter. This data tends to suggest the meter (Rhinestone) may have failed. Conversely, all of the fire damage and arcing within the meter / meter socket enclosure could be explained if an approaching fire ignited the plastics associated with the meter very early in the fire. Extensive analysis of the fire scene and electrical system associated with the condominium (to look for arcing downstream of the meter) would be needed to determine if the meter failed to any probability.

By contrast, it is probable the Arletta meter did fail, resulting in the ignition of the fire. The meter is the only device that displayed fire damage. See Figure 8. Additionally, arcing was found in abundance within the meter and meter socket enclosure, suggesting that the meter failed in some fashion.

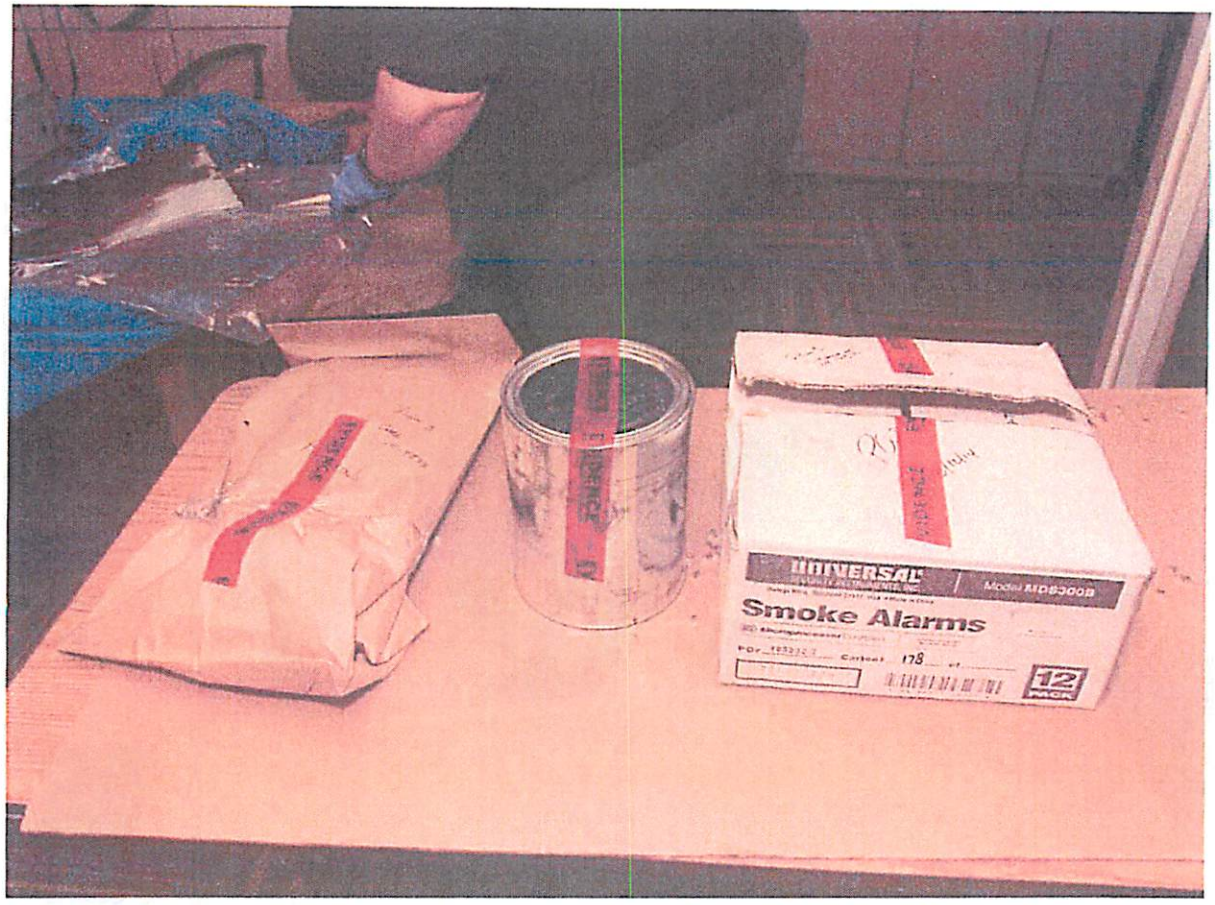
The remaining examined meters (Appendices A and B) also displayed common characteristics, suggesting that they may have failed. Given the common data amongst each of the meters (#1, #2, and #4 in the Analysis of Data section above), a common failure mode cannot be eliminated and needs to be seriously considered regarding the Sensus smart meters.

Please let me know if you have any questions.

Sincerely,

Andrew Thoresen, PE

Appendix A
El Cap Photographs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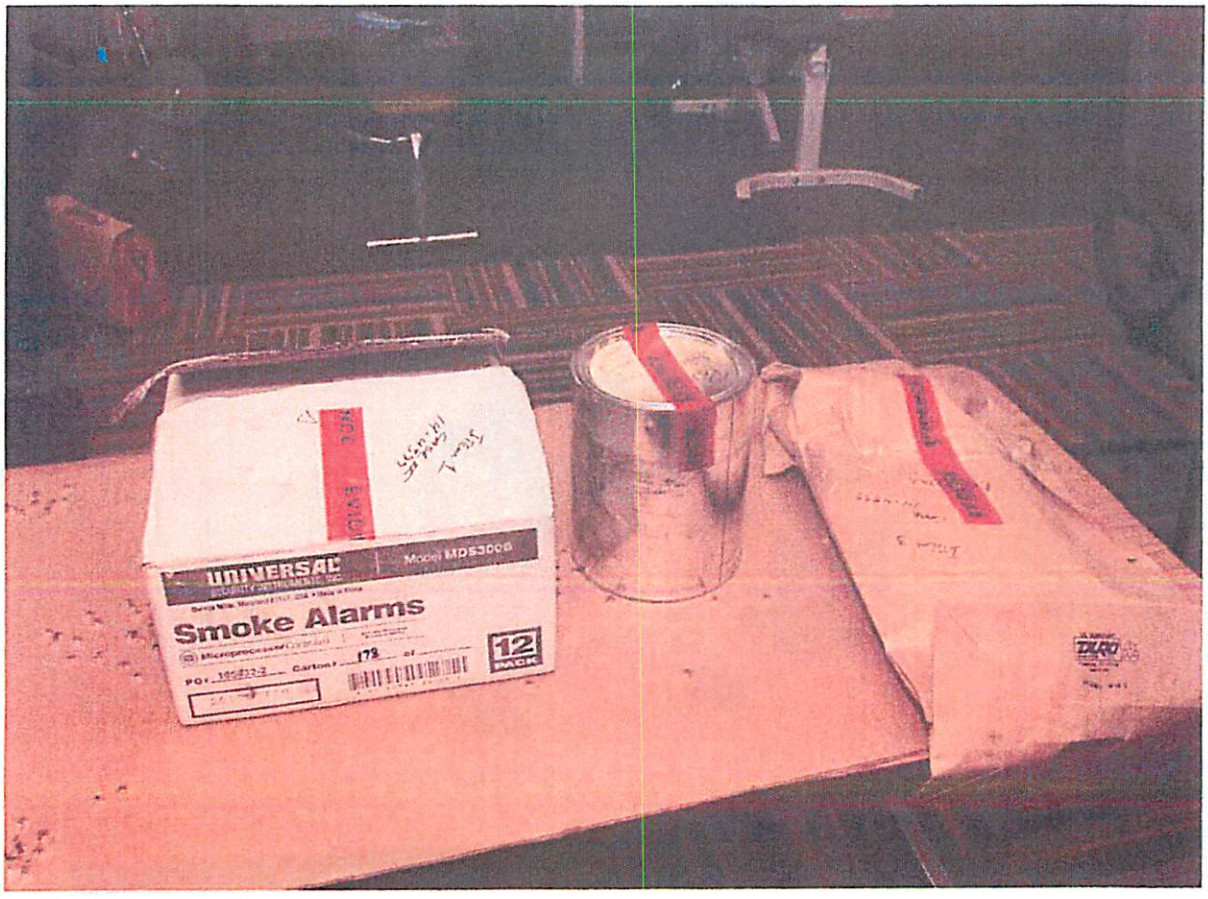
Model MDS300B
Smoke Alarms
12
PACK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Model MDS300B
Smoke Alarms
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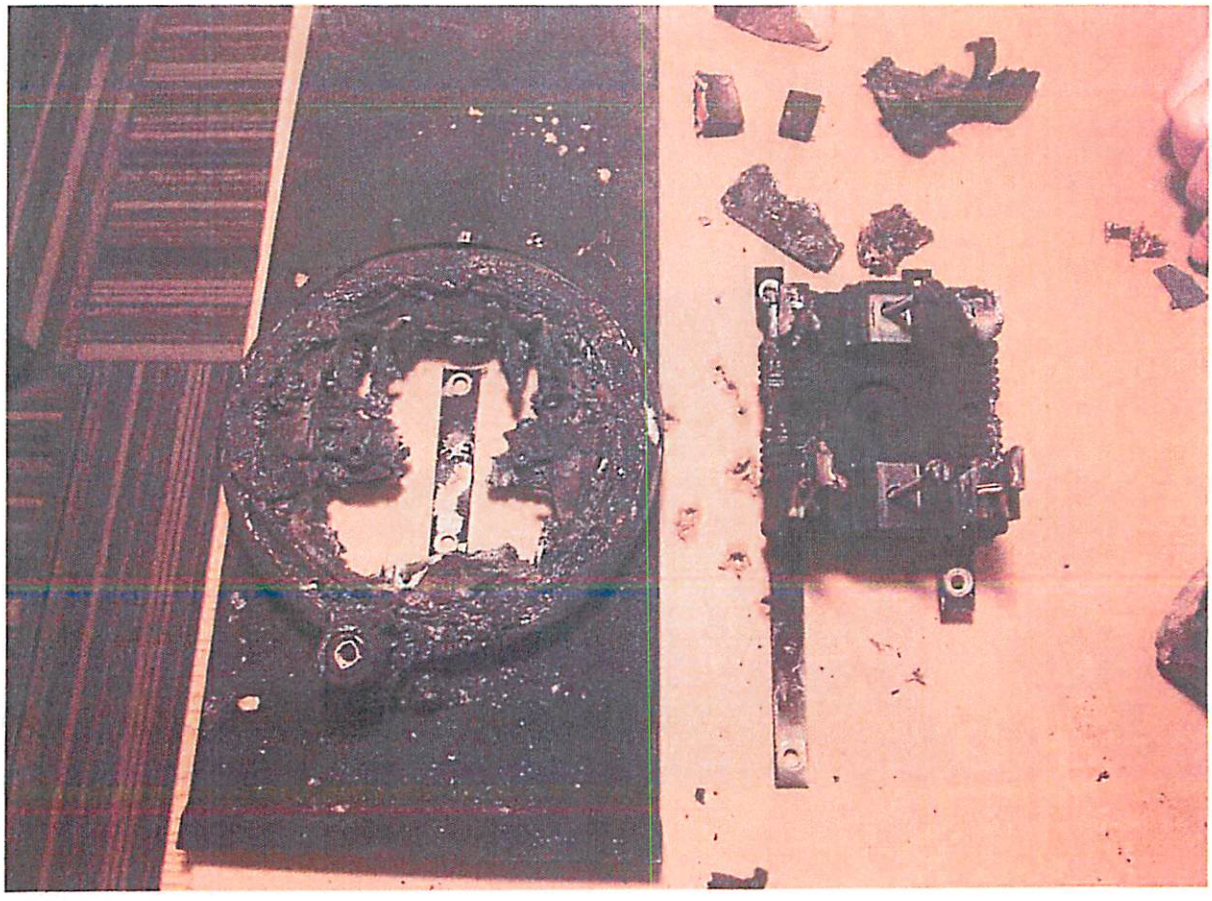
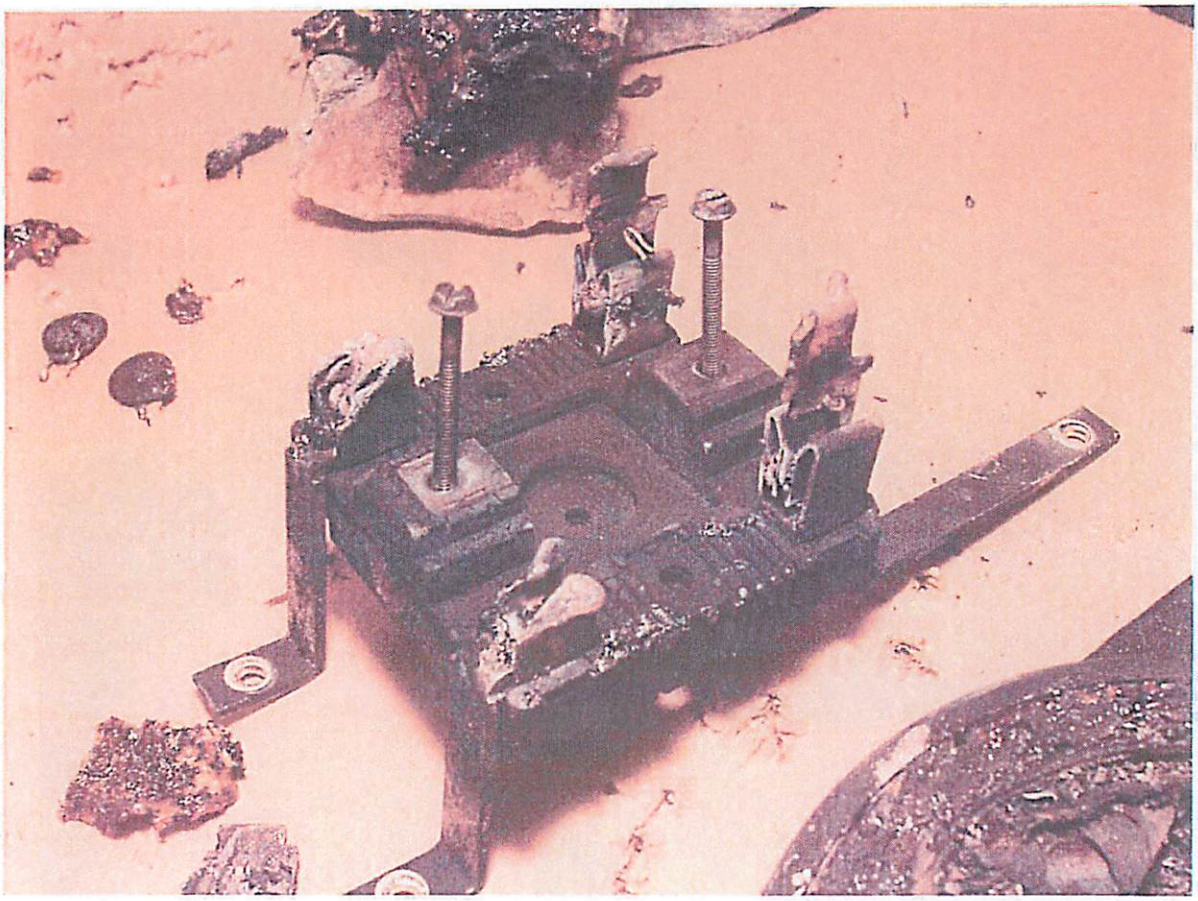
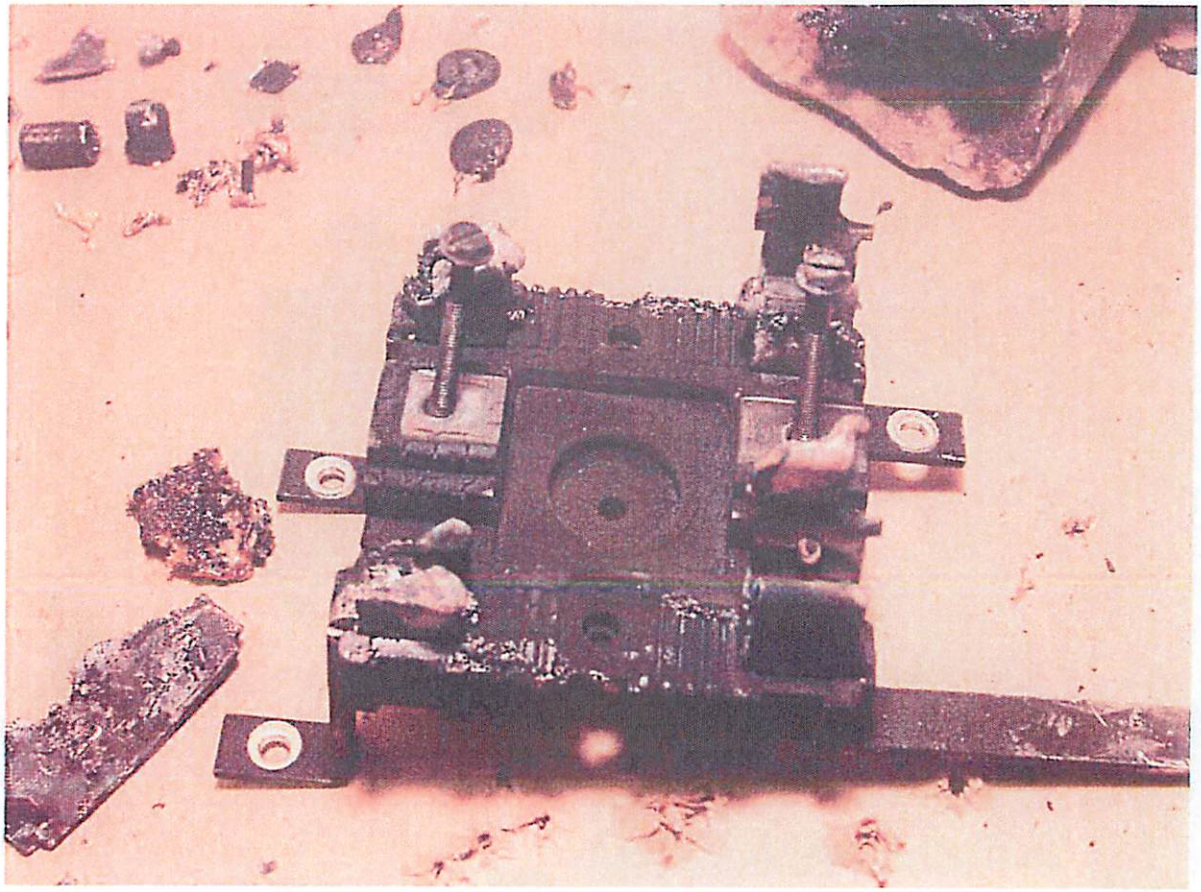
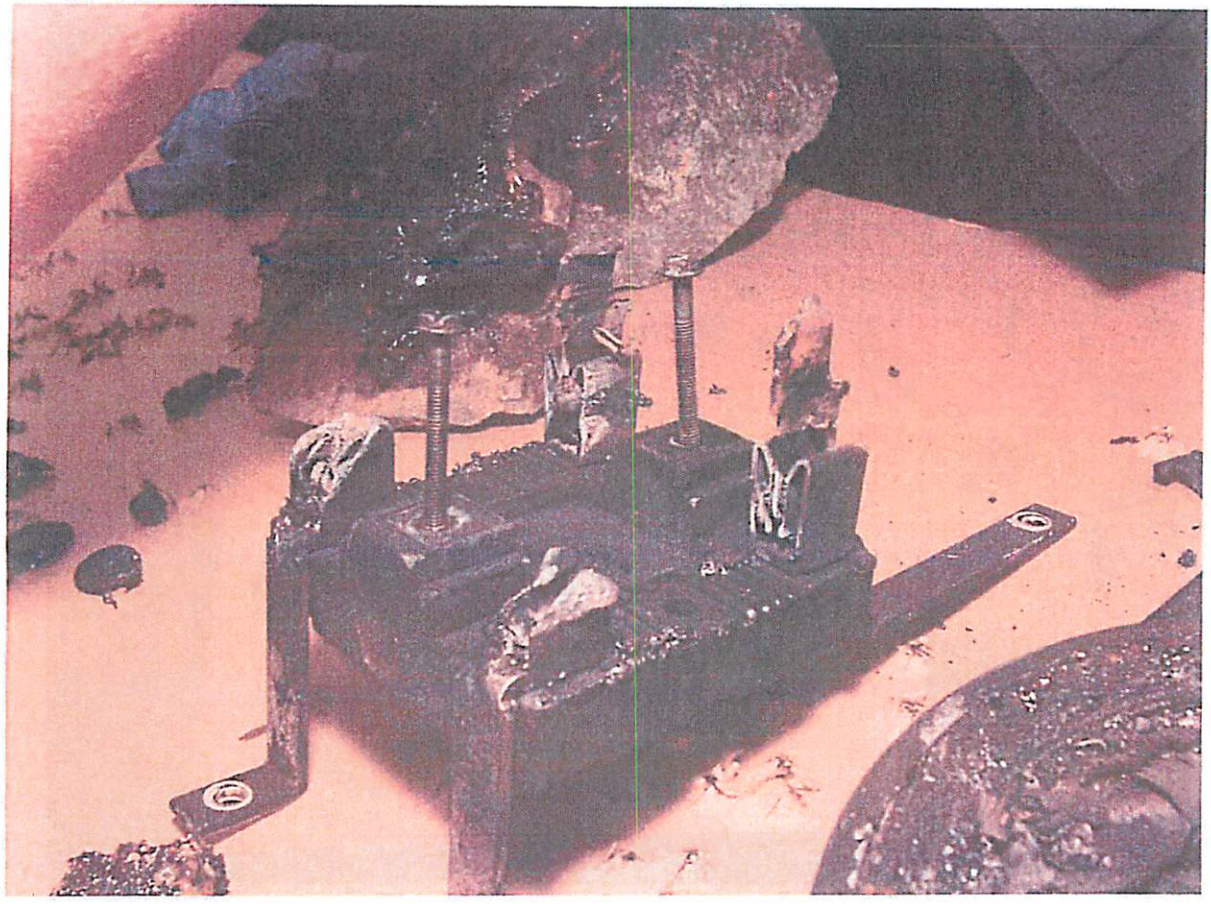
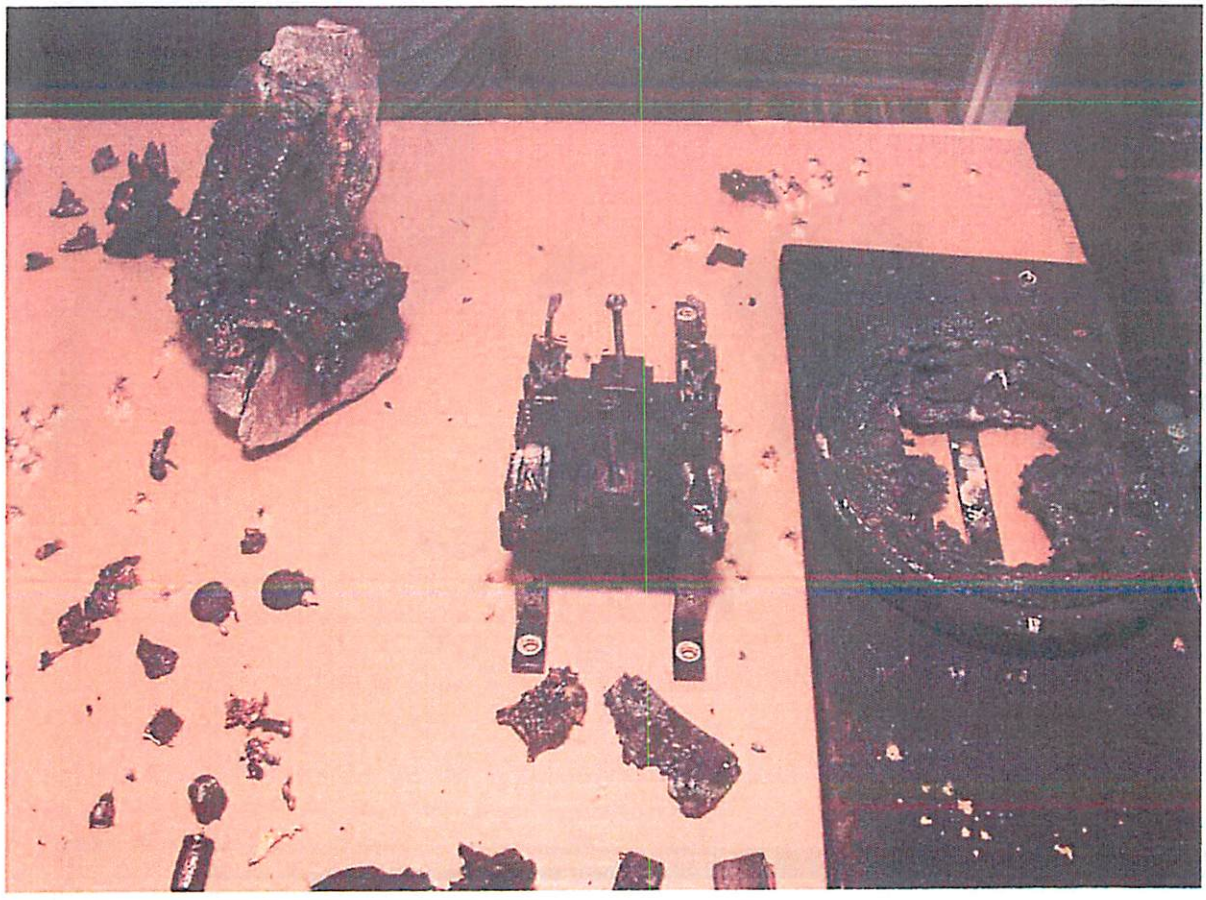
PACK

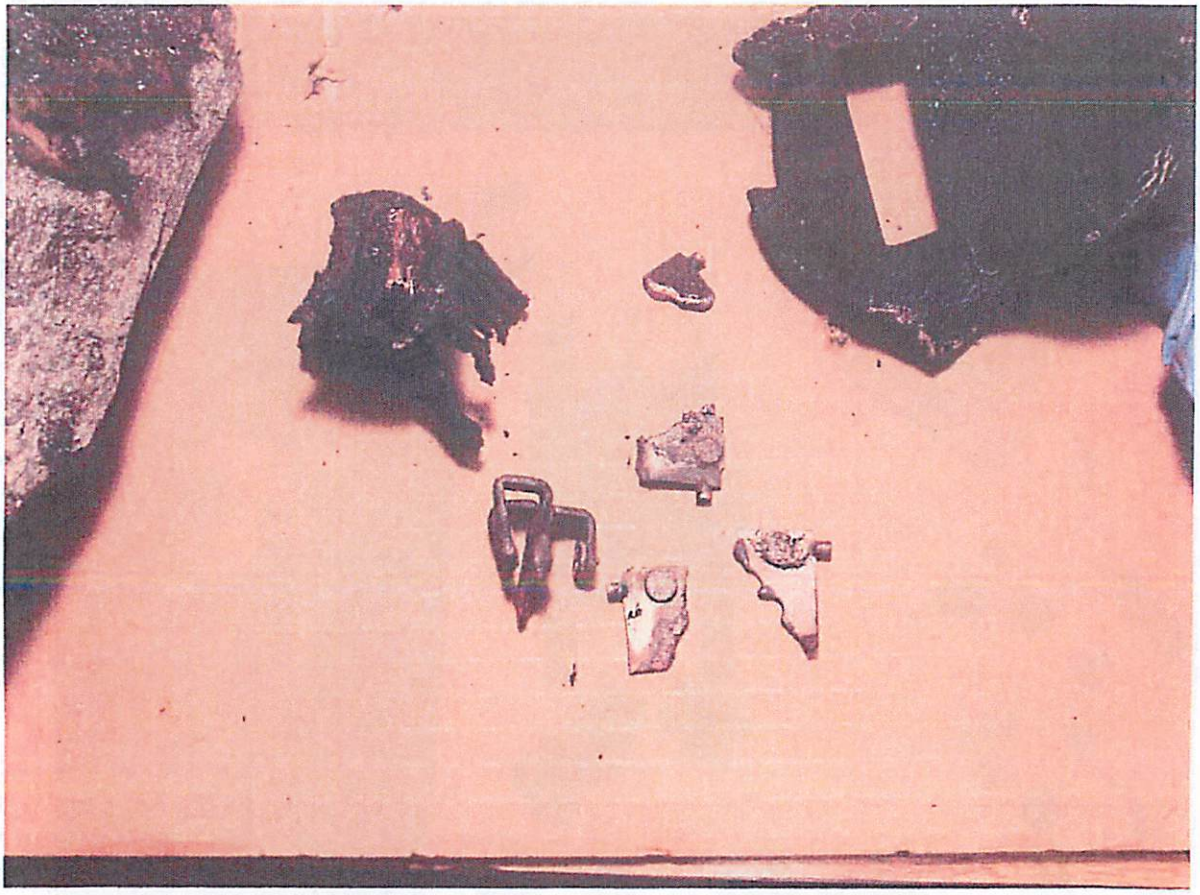


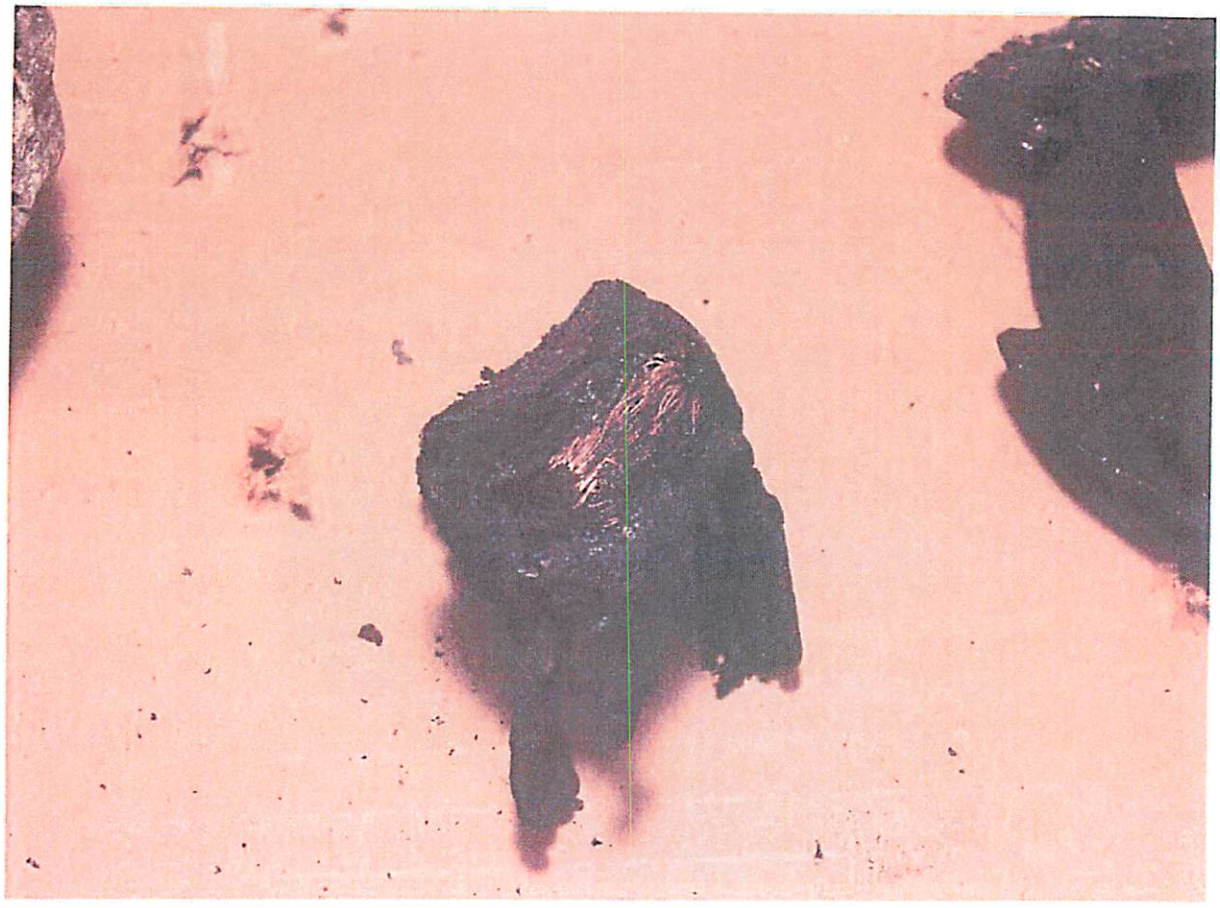


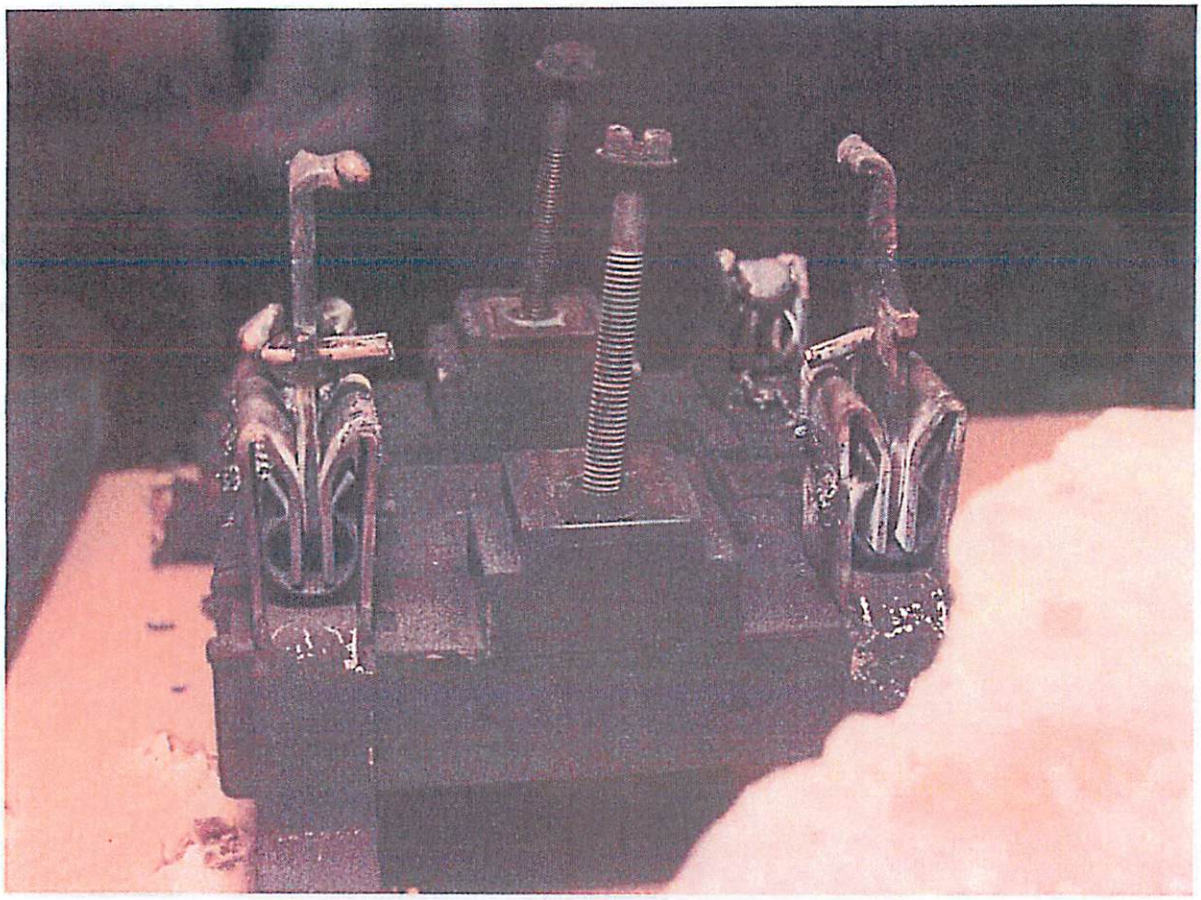


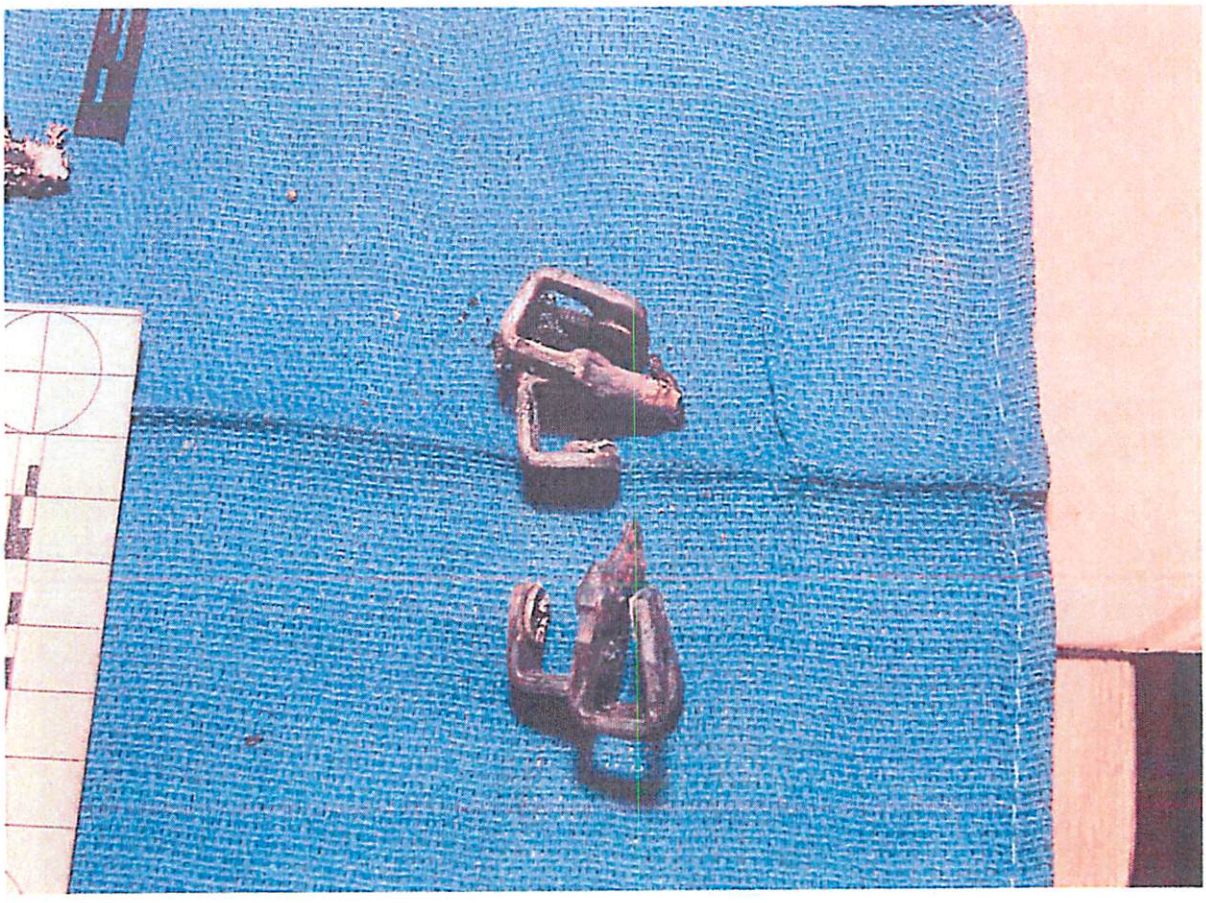


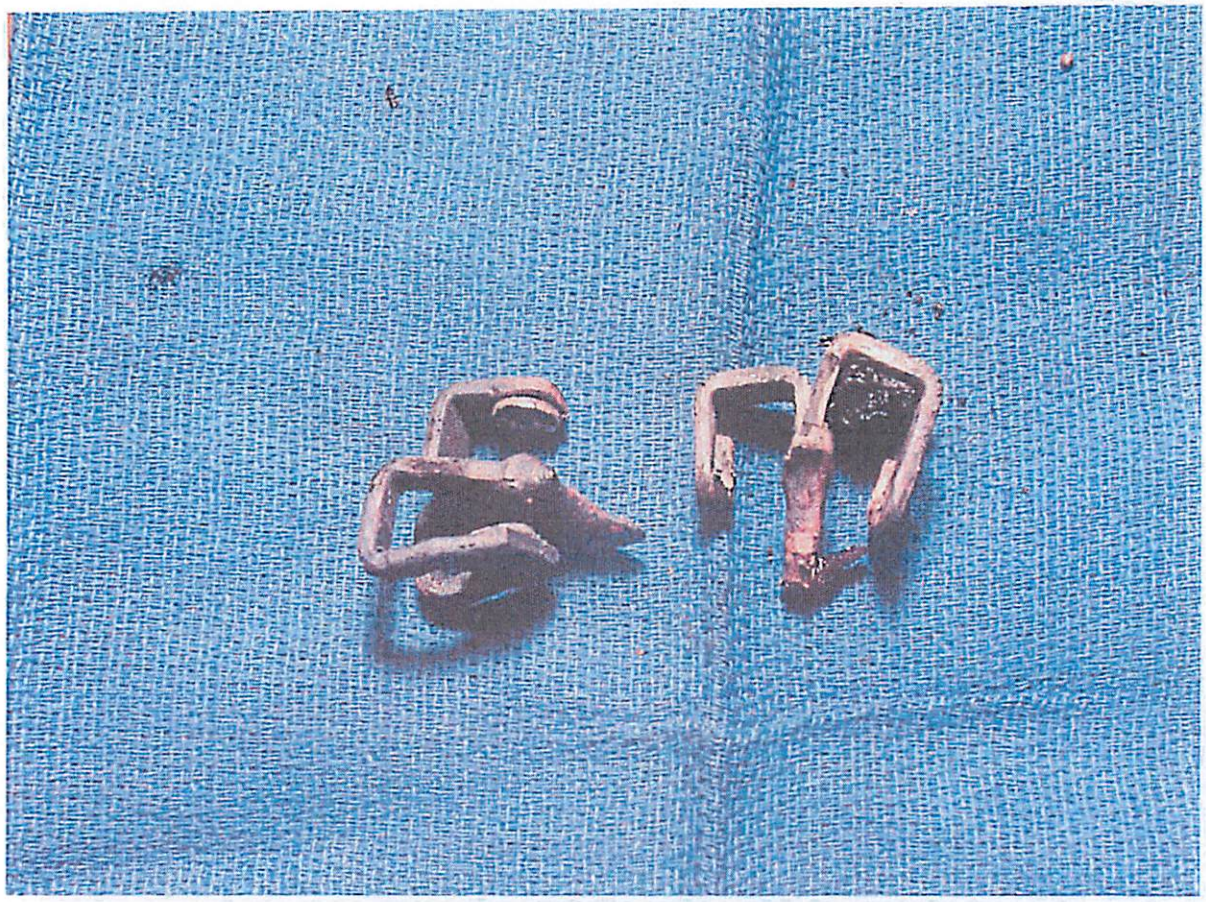












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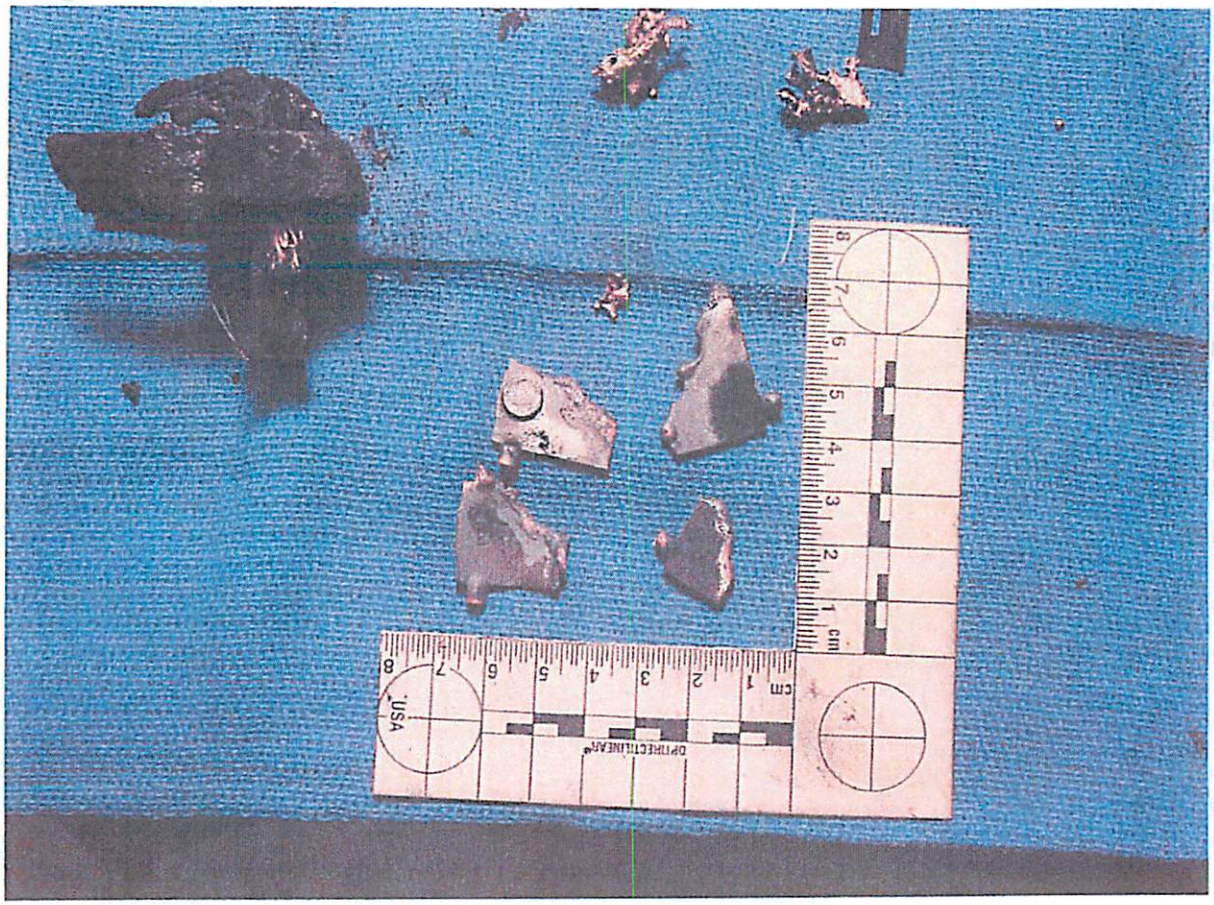
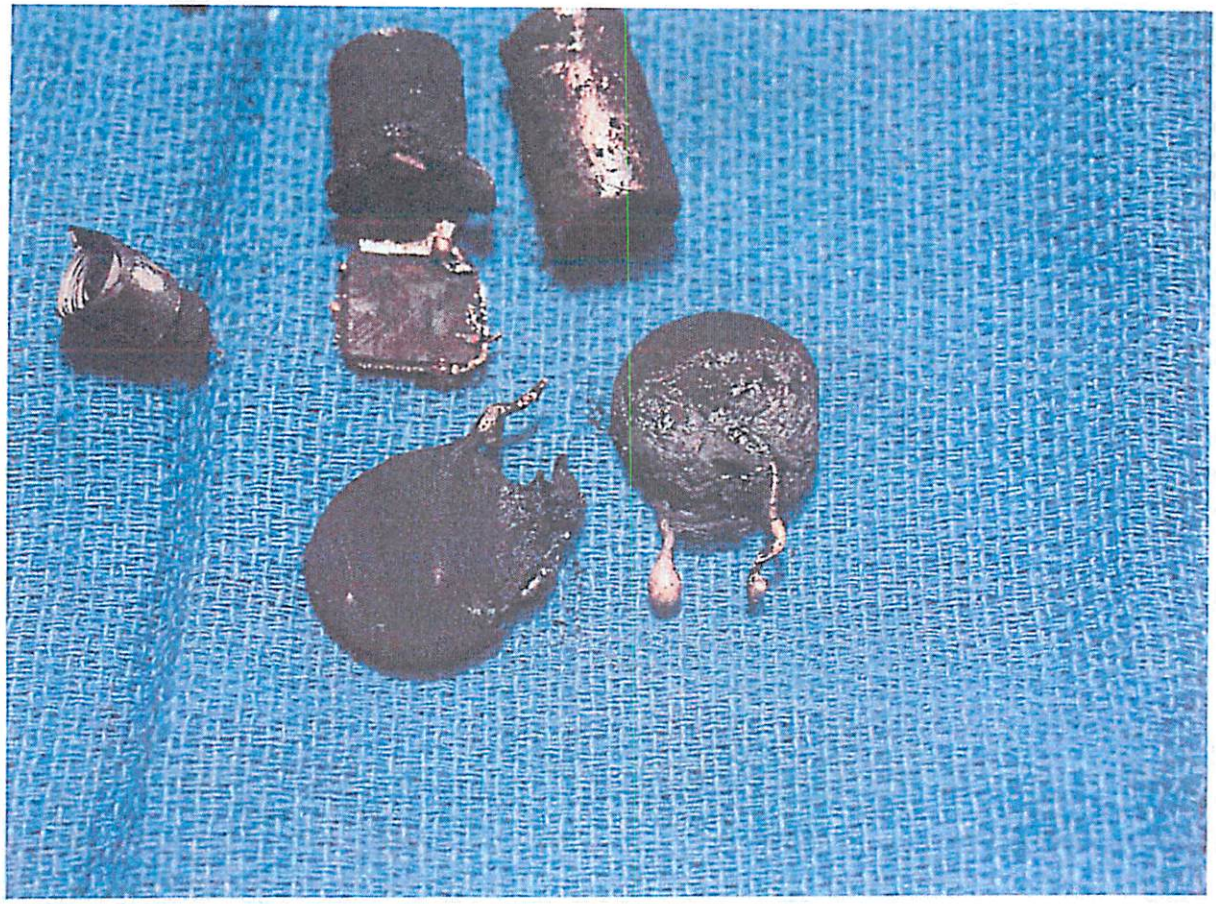
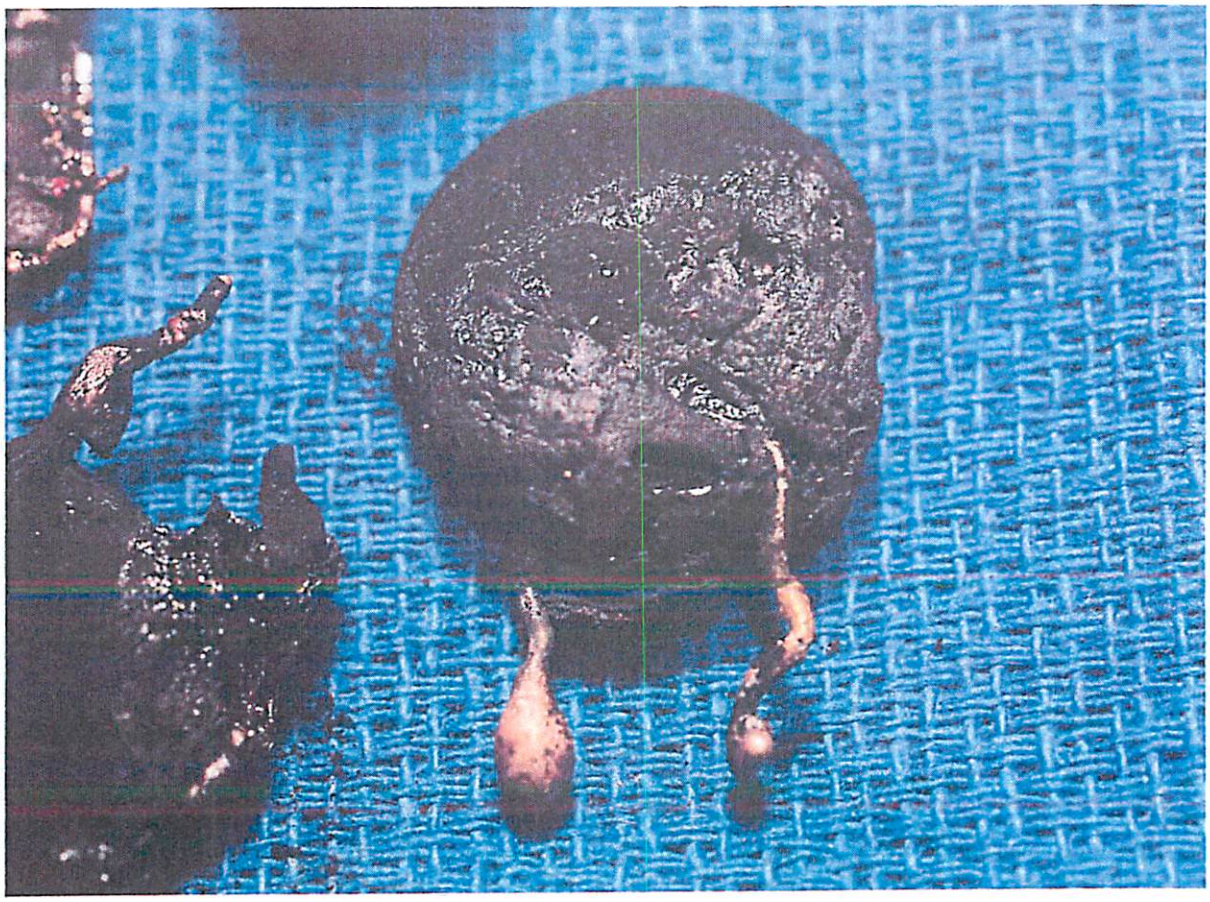
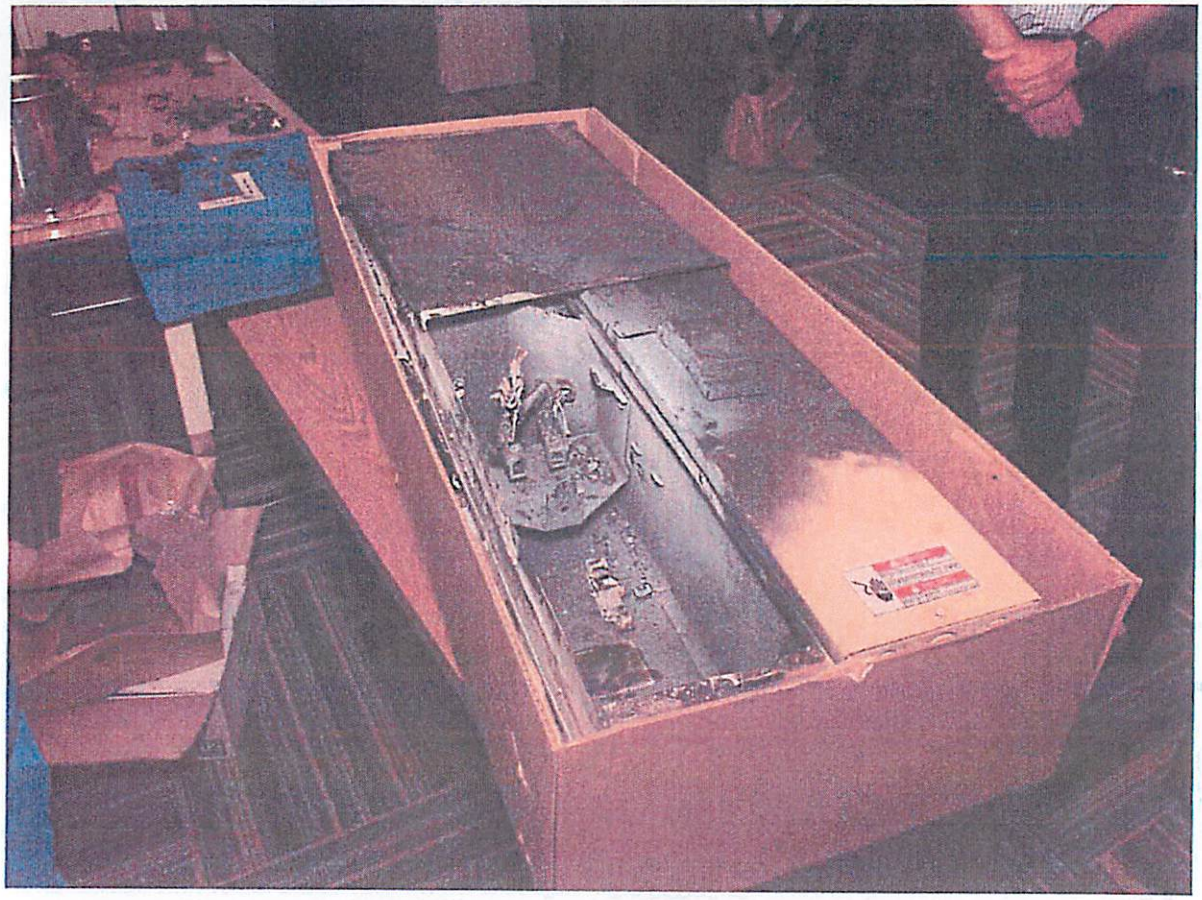
cm 1 2 3 4 5 6
cm 1 2 3 4 5 6 7 8

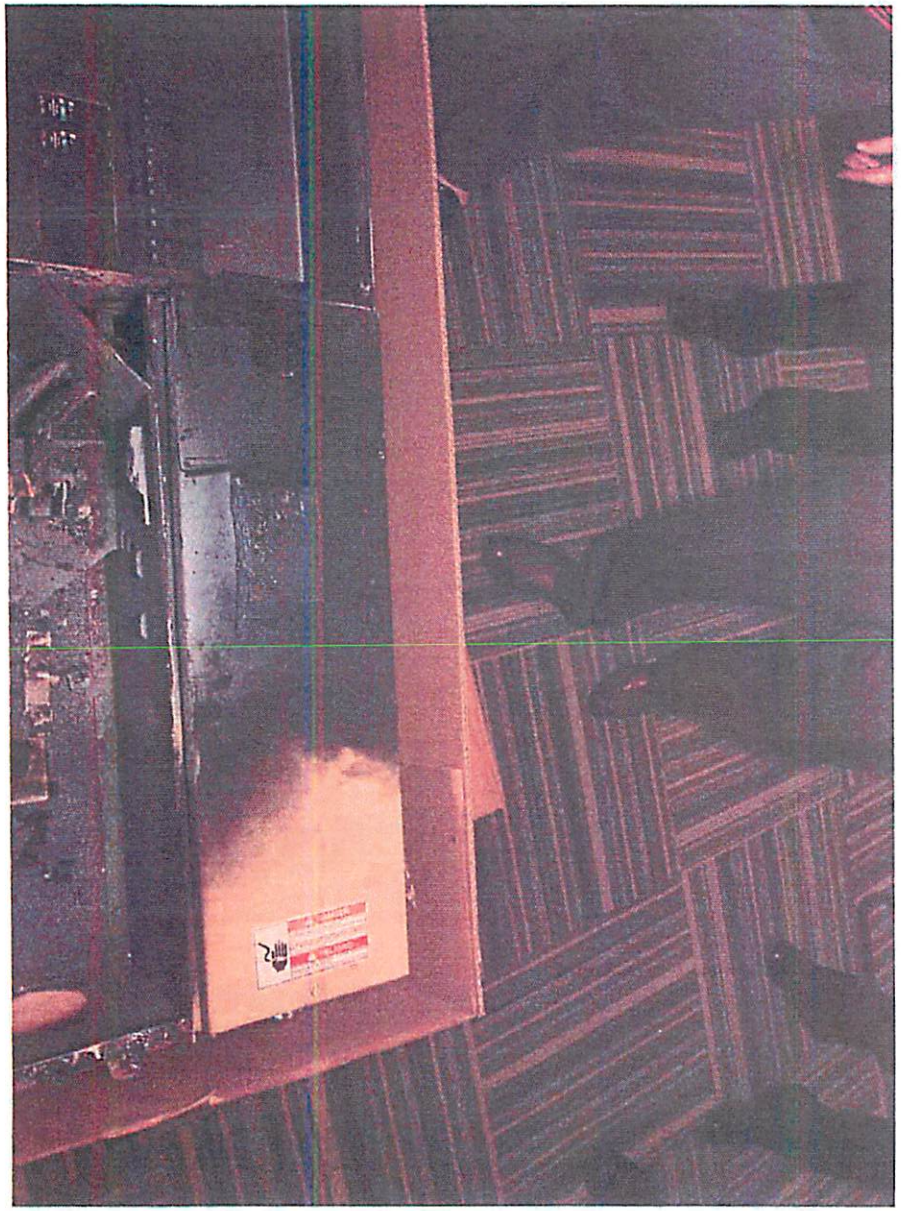

USA
OPTIMECTILINEAR

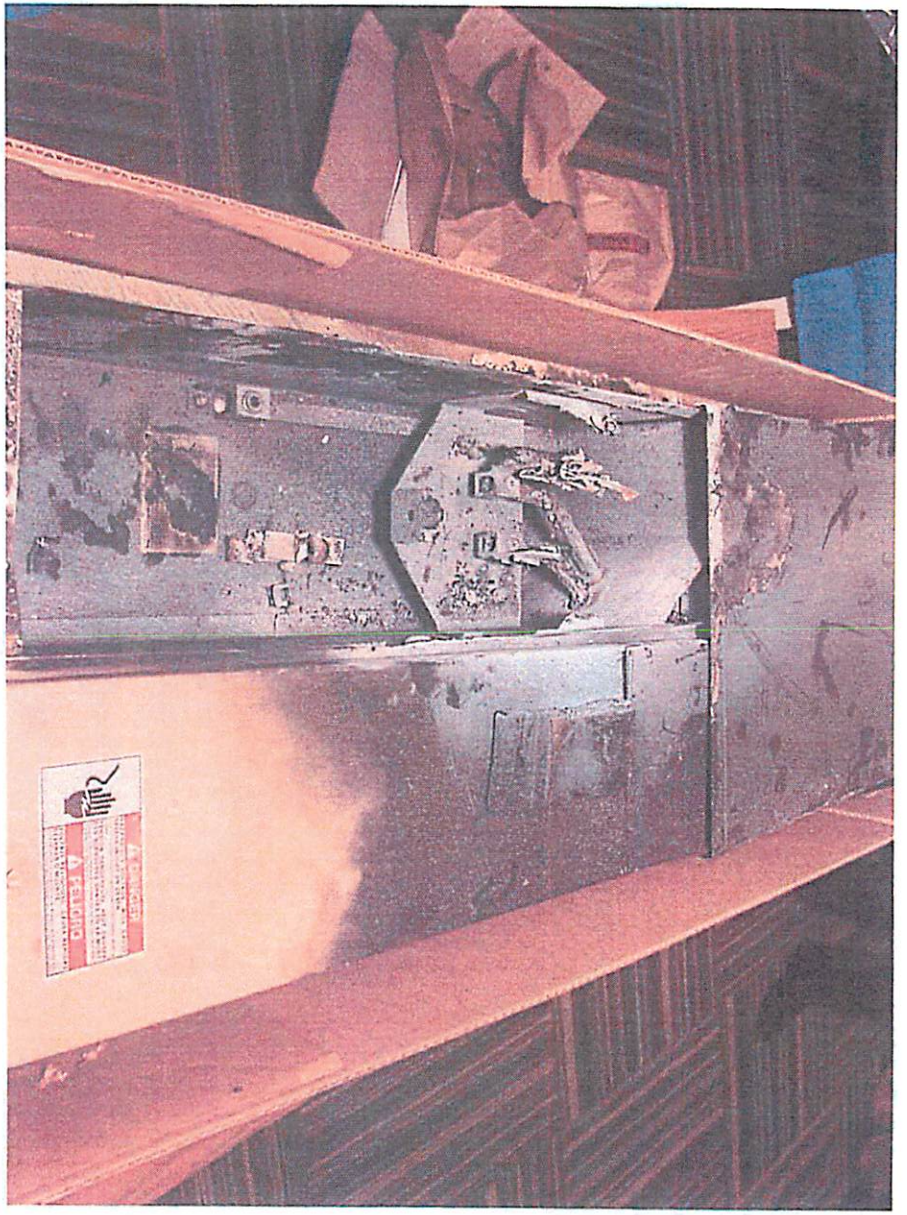


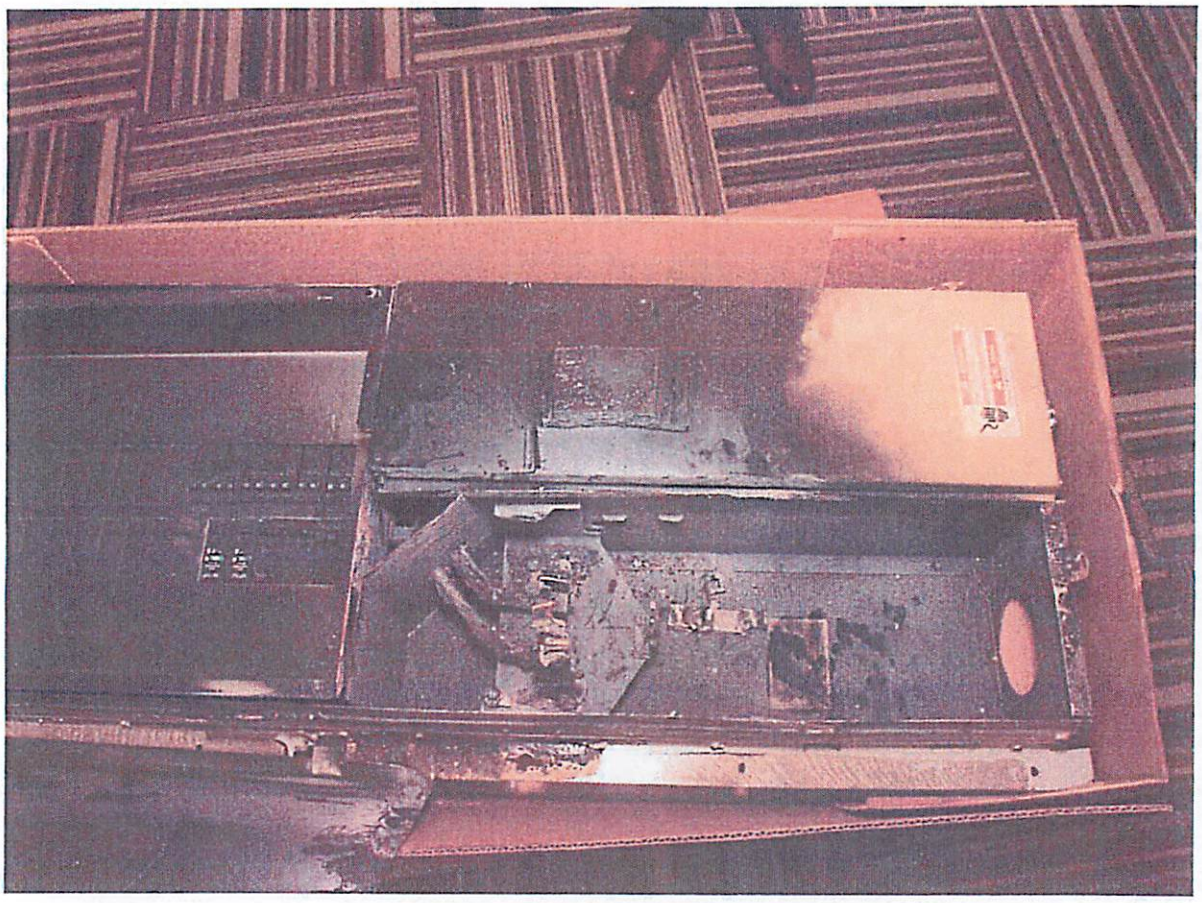


Appendix B
Wind Swept Photographs

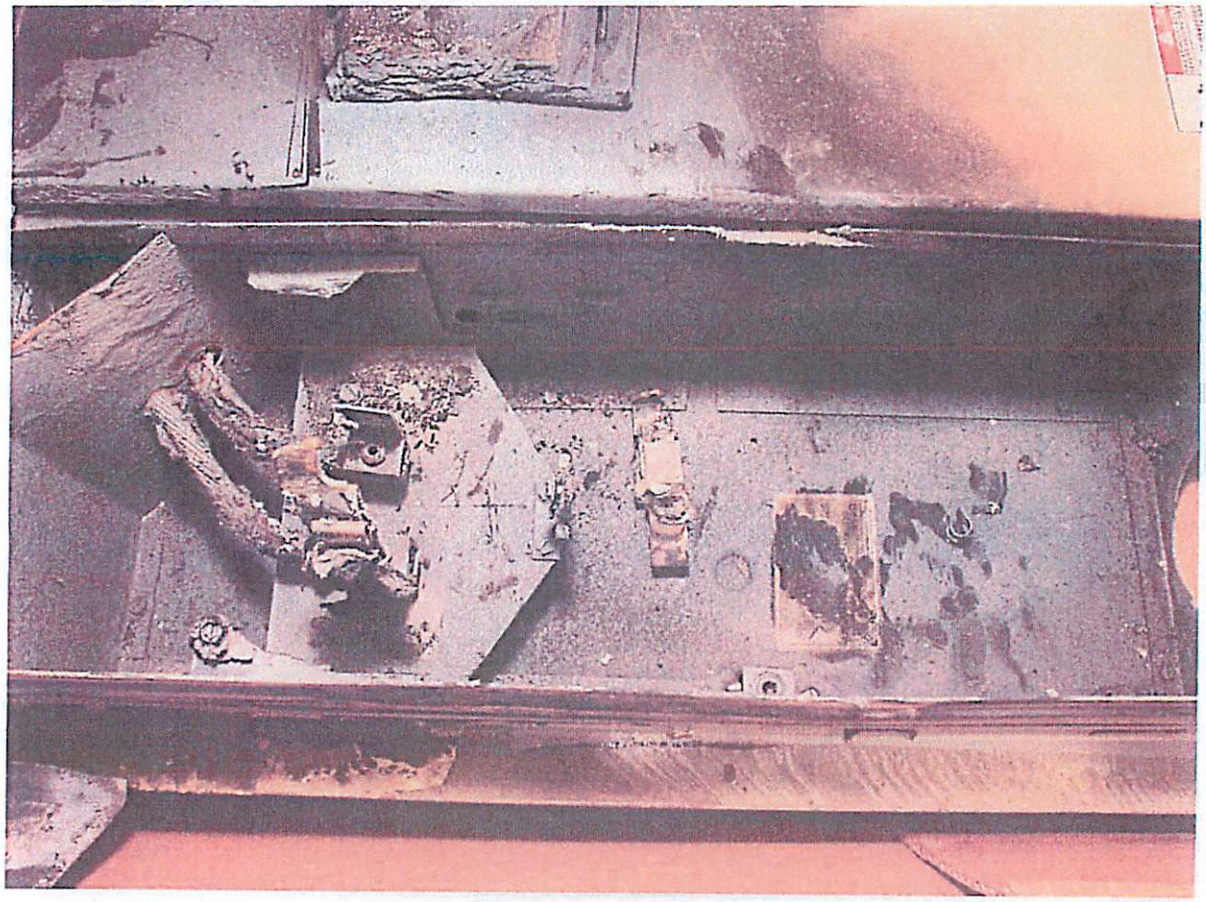


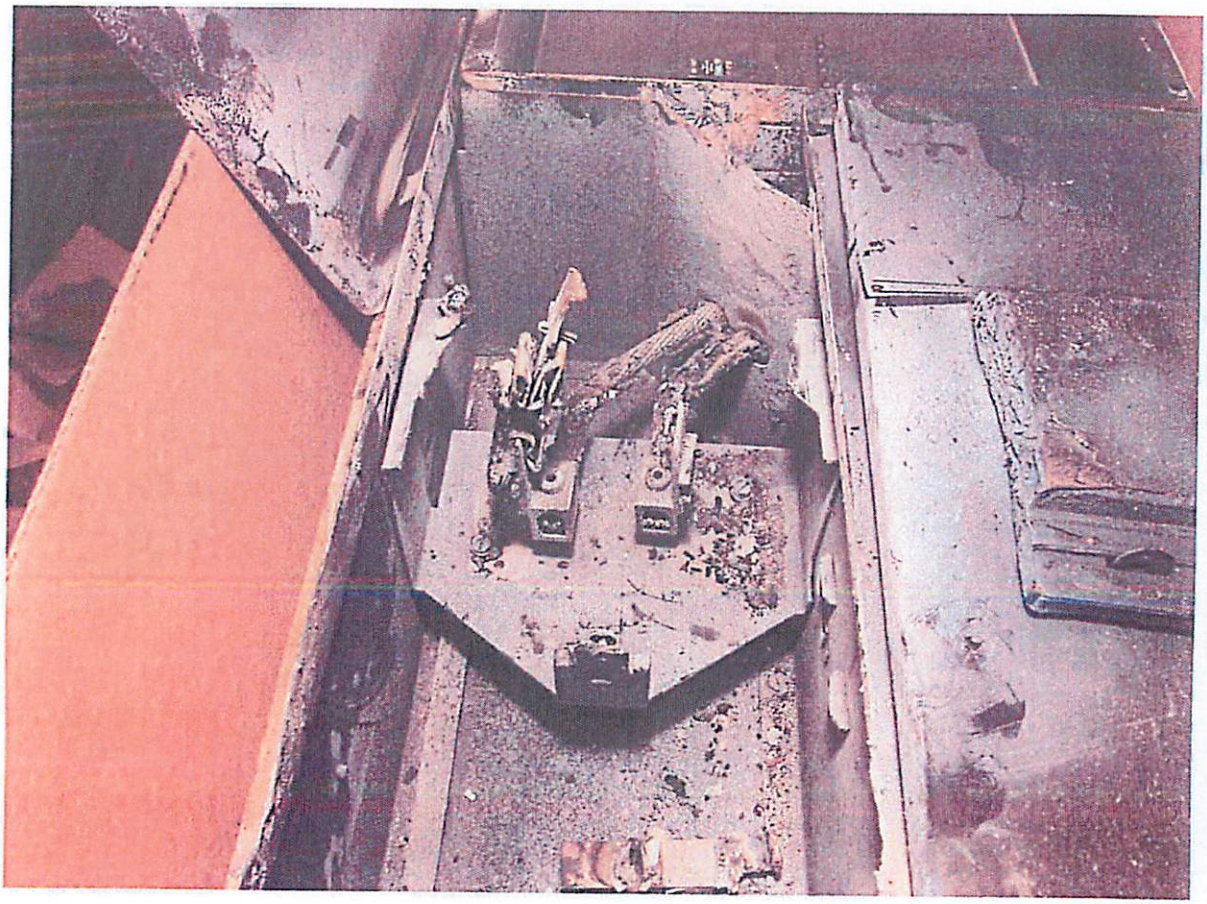


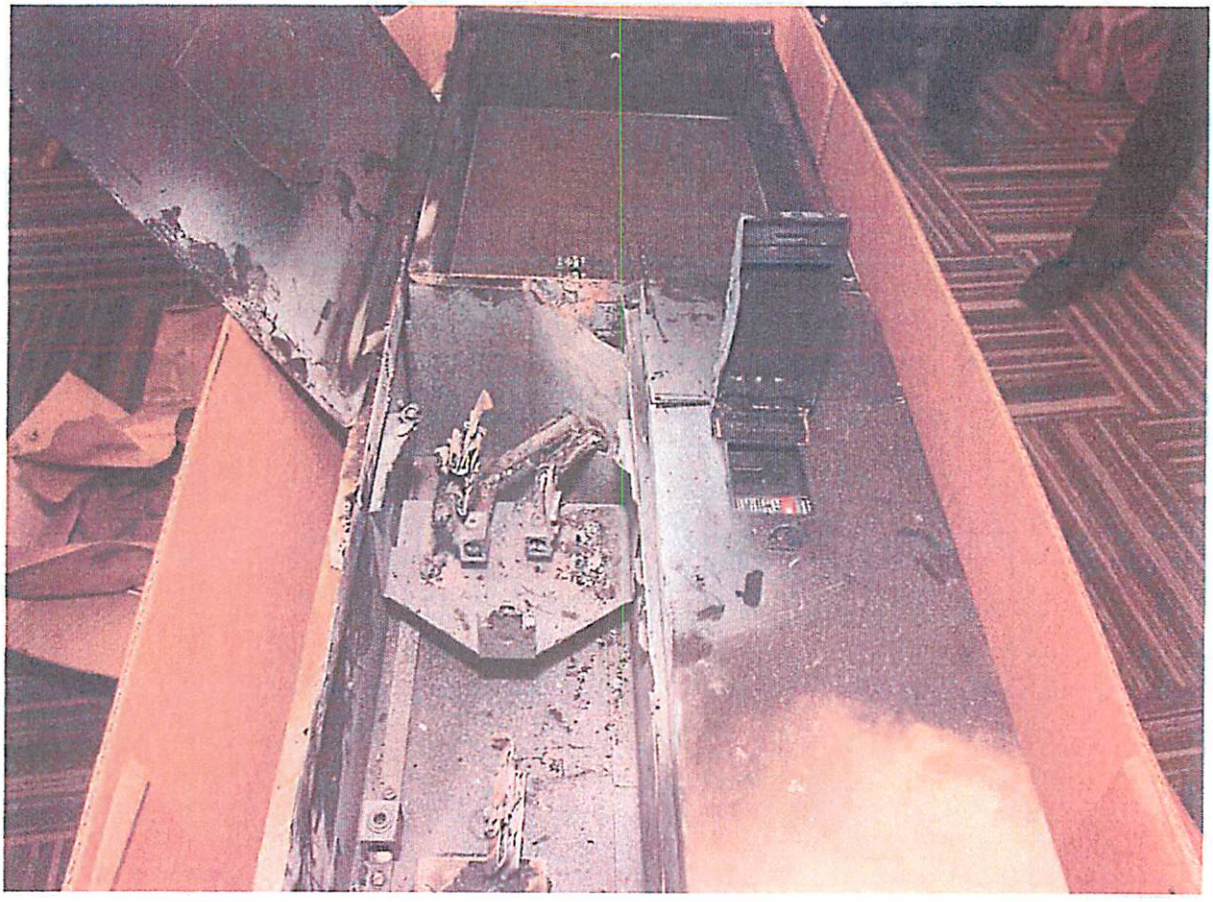


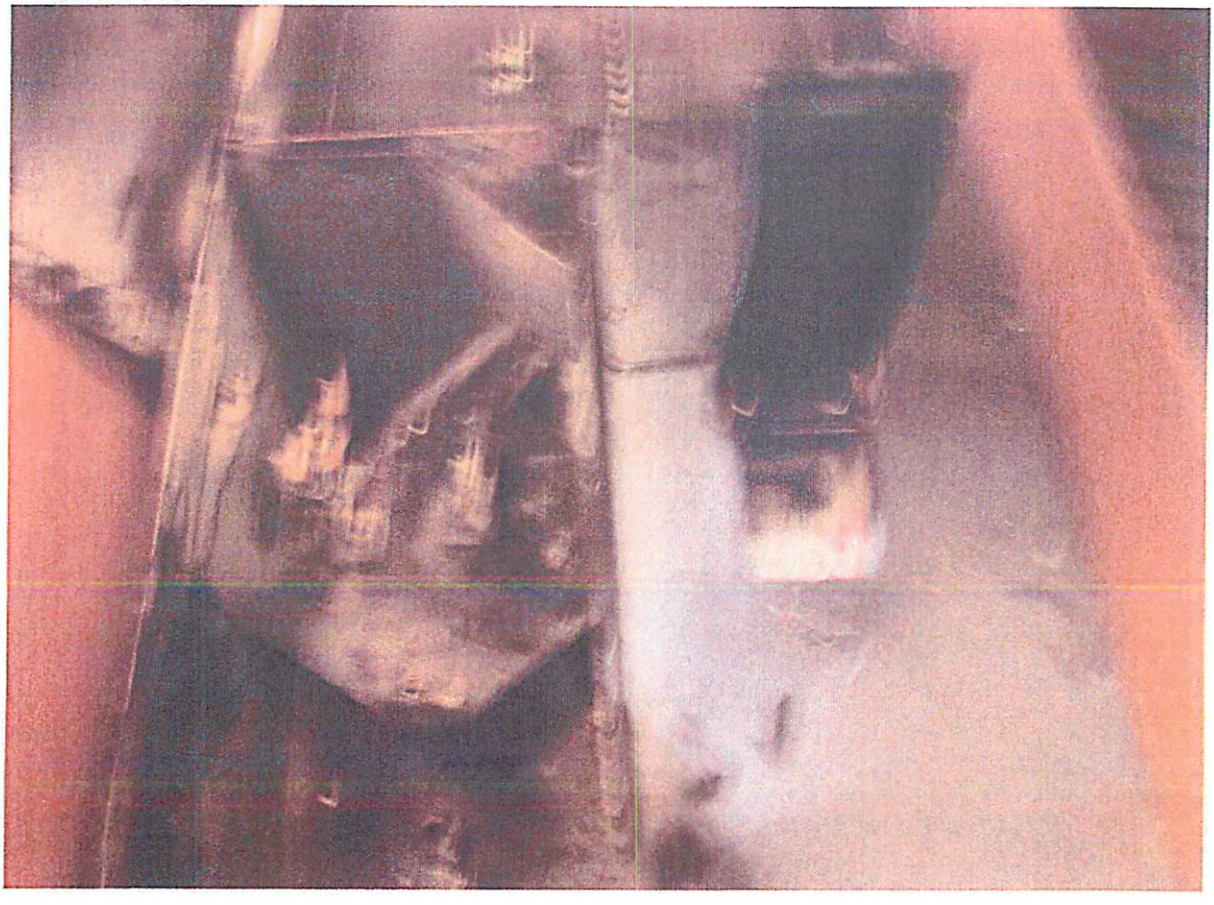


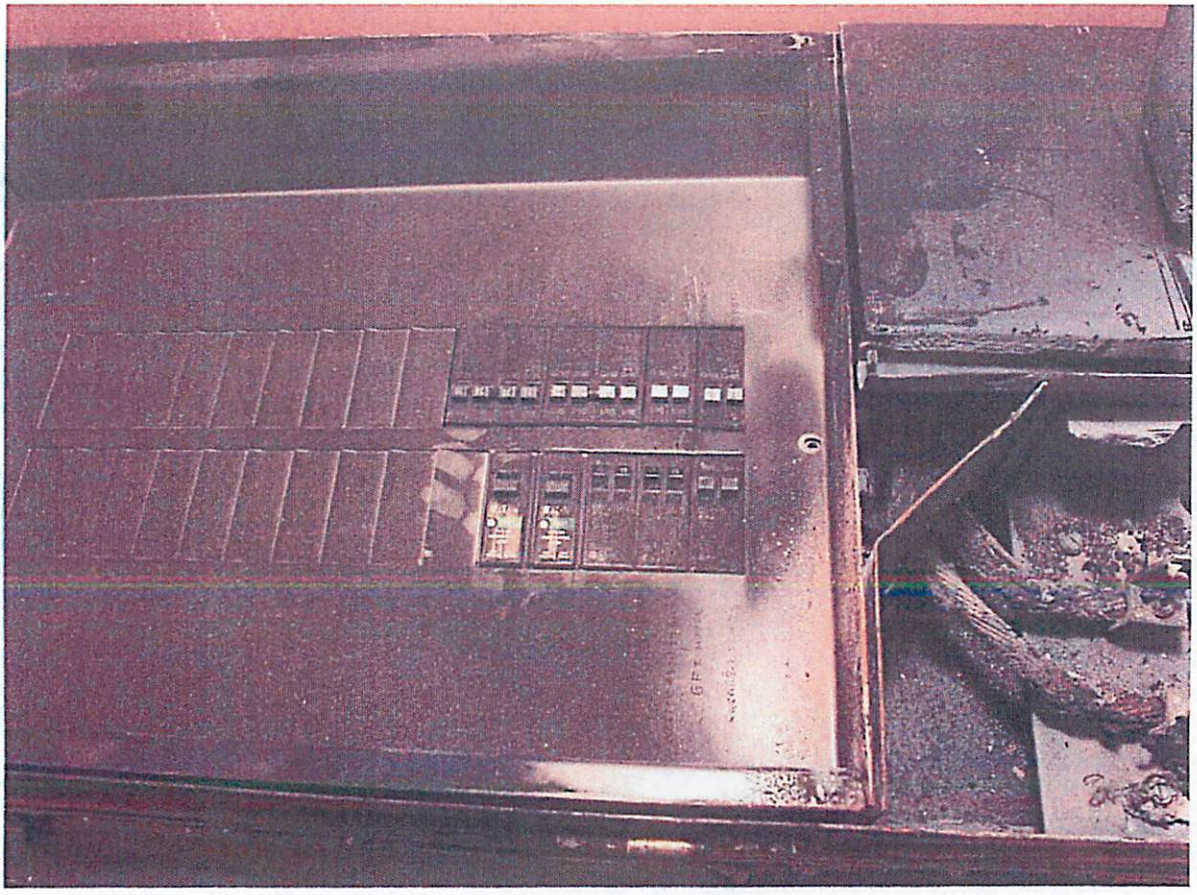
DANGER











ATTACHMENT L.2

7625 Rhinestone Circle, Reno
July 27, 2014 Incident

NV Energy Documents

EFX

ENGINEERING FORENSICS EXPERTS LLC

Laboratory Address
4811 E. Julep St. #119
Mesa, AZ 85205
Cell 602-721-4202 **FAX 480-664-7589**

Mailing address
3136 E. Leland Cir
Mesa, AZ 85213
Email: gjhogge@cox.net

September 4, 2014

Mr. Brandon Barkhuff
Associate General Counsel - NV Energy
6226 W. Sahara Avenue
Las Vegas, NV 89146

Re: 7625 Rhinestone Circle, Reno, Nevada
Date of Loss: July 27, 2014

It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the proximate cause of the arcing and damage at the electric utility meter located at 7625 Rhinestone Circle, Reno, Nevada, was external fire attack. It is not physically possible for the meter to have communicated normally after an arcing event occurred that had been initiated internally to the meter.

It is therefore not physically possible that the fire originated at the electric utility meter, hence the meter could not possibly have been the cause of the fire.

Basic Background Facts that support this conclusion are as follows:

- This meter had been installed into the home on August 21, 2012, almost 2 years prior to the arc event that occurred on July 27, 2014. The meter was installed as part of an overall system upgrade to utilizing "Smart Meters" on homes and businesses. One of the features of these new smart meters is that they regularly communicate data to the utility over a SCADA type (Supervisory Control and Data Acquisition) communications system. This system also allows the utility certain control functions including the ability to remotely disconnect power at the meter. The SCADA type system utilizes RF (Radio Frequency) signals.
- According to the Reno Fire Department, the subject fire was called in at 22:59:52.
- The last normal RF communication from the NV Energy meter was at 23:00:49.
- These "smart meters" communicate data regularly to the utility database over the SCADA type system using RF (radio frequency) signals that are generated within the relatively fragile circuit board components that are located within the meter housing. If there were some catastrophic failure within the meter resulting an

arcing such that a fire could originate within the meter, that event would cause the failure of those RF circuit components almost instantaneously.

- The fact that the fire was called in to 911 emergency services some 57 seconds before that last RF communication would conclusively prove that this fire did not originate within the meter.
- Additionally, the findings of the Certified Fire Investigator that this fire had been burning and growing for a significant amount of time before it was called in, would provide further conclusive support that the meter could not have been the source of the fire.

CONCLUSION:

It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the proximate cause of the arcing and damage at the meter was external fire attack. It is not physically possible for the meter to have communicated normally after an arcing event occurred that had been initiated internally to the electric meter.

It is therefore not physically possible that the fire originated at the electric utility meter, hence the meter could not possibly have been the cause of the fire.

These conclusions were reached with reasonable scientific certainty based on:

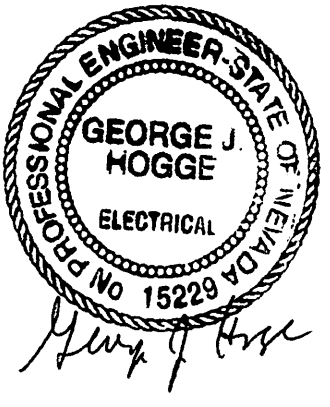
1. Examinations of the evidence artifacts.

2. The undersigned investigator's education, training, and experience as a Journeyman Electrician and Registered Professional Electrical Engineer.

Submitted by,

George J Hogge P.E.

George J. Hogge, P.E.



sensus

The Measure of the Future

Trip Report

Preliminary Findings of Reno Investigation

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1 Executive Summary

Reno Fire Prevention Bureau Captain Tray Palmer called the meeting on 8/27/2014. The stated purpose was:

"Reno Fire Department Fire Investigation associated with RFD Case #14-20009. 7625 Rhinestone Circle. Meter and Electrical box to be examined by Andre Thoresen from Oracle Forensics".

After the initial investigation of 7625 Rhinestone Circle, three unrelated, consumed meters were investigated. Reno Fire department retained one set of remains from Arletta St. (June 2014), while the other 2 units were retained by the Sparks Fire Department from El Cap Ct. (June 2014) and Windswept Loop (June 2013).

2 Preliminary Findings

The preliminary findings for the investigation of 7625 Rhinestone Circle indicate that the meter was not the original source of the fire. This is based primarily on the following findings:

- The meter was functional and reporting meter reads to the Regional Network Interface (RNI) 57 seconds after the 911 call was received from a neighbor. The 911 call itself was made after the fire was significantly advanced. This indicates that the meter was still functional well after the fire originated, which would be impossible if the fire had originated in the meter.
- Propagation of heat through the meter indicates damage consistent with an external heat source
    - The Phase A and Phase C bus bars are almost completely intact and show minimal signs of phase to phase arcing. The internal heat required for a consumptive meter event is a consequence of bar to bar arcing that results in complete consumption of the Phase A and Phase C bus bars. No structures internal to the meter can release enough energy to result in a consumption event without significant phase to phase arcing across the Phase A and Phase C bus bars.
    - The Remote Disconnect (RD) structure was compromised when external heat breached the outer meter cover and resulted in arcing from the RD structure to the meter locking ring. Because the Phase A and Phase C bus bars have not been consumed by arcing, there is no possible internal heat source sufficient to melt the outer cover and allow for this arcing from the RD structure to the meter locking ring.
    - The Printed Circuit Boards (PCBs) remain largely intact, indicating heat propagation from outside in, toward the meter. Internal heating events typically result in consumption of large portions of the PCBs. This did not occur in this meter.
- Propagation of heat across the panel indicates damage consistent with an external heat source
    - Point of greatest heat on the panel is from below the lower left corner, 2 feet below the meter
    - Evidence of arcing between the incoming service lines and the panel due to lack of insulation appear to be the result of over heating
- The evidence obtained from the Rhinestone incident is inconsistent with all other fully consumed meter failures, including the three subsequent meters investigated by the Reno Fire Department at this inspection.

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ENGINEERING EXAMINATION and ANALYSIS
DRAFT REPORT #1

File No: 4880-0730

Prepared for:
NV Energy
6226 W. Sahara Avenue, MS #3A
Las Vegas, NV 89146
Attn: Brandon M. Barkhuff, Assistant General Counsel

Claim No:	Unknown
Date of Occurrence:	7/27/14
Location of Occurrence:	7625 Rhinestone Circle, Reno, NV

Dates of Examinations:
1. Evidence Examination: 8/27/14

CONTENTS:

(A) SUMMARY:
(B) ENCLOSURES:
(C) INSTRUCTIONS:
(D) BACKGROUND:
(E) EVIDENCE EXAMINATION:
(F) ANALYSIS:
(G) CONCLUSION:
(H) COMMENTS:
(I) PHOTO SHEETS

The investigation activities and reporting have been conducted in accordance with the following standards among others:

- NFPA 921-2011 Edition "Guide for Fire and Explosion Investigations"
- ASTM E620–04 "Standard Practice for Reporting Opinions of Scientific or Technical Experts"
- ASTM E678–07 "Standard Practice for Evaluation of Scientific or Technical Data"
- ASTM E860–07 "Standard Practice for Examining And Preparing Items That Are Or May Become Involved In Criminal or Civil Litigation"
- ASTM E1020–96 (Reapproved 2006) "Standard Practice for Reporting Incidents that May Involve Criminal or Civil Litigation"
- ASTM E1188–05 "Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator"
- ASTM E2332–04 "Standard Practice for Investigation and Analysis of Physical Component Failures"

(A) SUMMARY:

It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the proximate cause of the arcing and damage at the meter was external fire attack. It is not physically possible for the meter to have communicated normally after an arcing event occurred that had been initiated internally to the meter.

It is therefore not physically possible that the fire originated at the electric utility meter, hence the meter could not possibly have been the cause of the fire.

(B) ENCLOSURES:

1. 28 color images of evidence examination (from digital photographs) with descriptions.

2. Itemized invoice for Forensic Engineering services to date.

(C) INSTRUCTIONS:

Original instructions were received from Brandon Barkhuff representing NV Energy for George J. Hogge PE, Principal Electrical Engineer to participate in a joint Forensic Engineering examination of an electrical service panel and the associated meter with representatives from Reno and Sparks Fire Departments.

Further instructions were received from Brandon M. Barkhuff, Assistant General Counsel of NV Energy to provide a written Engineering Report.

(D) BACKGROUND:

This meter had been installed into the home on August 21, 2012, almost 2 years prior to the arc event that occurred on July 27, 2014. The meter was installed as part of an overall system upgrade to utilizing "Smart Meters" on homes and businesses. One of the features of these new smart meters is that they regularly communicate data to the utility over a SCADA (Supervisory Control and Data Acquisition) communications system. This system also allows the utility certain control functions including the ability to remotely disconnect power at the meter. The SCADA system utilizes RF (Radio Frequency) signals.

According to the Washoe County Assessor, the home was built in 1981.

According to the official 911 tape, the fire was called in at 22:59:52.
The last normal RF communication from the NV Energy meter was at 23:00:49.

Definitions:

Some definitions that will be useful for readers of this report:

1. An electrical "**fault**" is simply electrical current flowing where it is not intended to flow, such as outside the confines of the wiring and other equipment intended to carry electrical current. This includes between conductors that are energized at different potentials.

2. A "**ground fault**" is electrical current flowing from the wiring or other intended conductors onto any grounded equipment or directly into earth ground. That path will often include through the body of personnel such as in a bathroom shock incident or an industrial accident.

3. A "**GFCI (Ground Fault Circuit Interrupter)**" is a specialized monitoring system that can sense when even a minute amount of current faults onto the ground system and then will quickly open the supply circuit to extinguish that ground fault.

4. An **"electric arc"** is a general term referring to the flow of electricity through the air gap or any conductive material from one energized conductor to another some distance away. Arcs can "jump" from one conductive material to another due to high charges (i.e. lightning or spark plugs) or it can be "drawn" out by a momentary contact of the conductive materials (i.e. skin to metal, or charring plastics). It is typical with high amperage arc faults that a high pressure plasma cloud will develop instantaneously, which results in an "explosion" and also serves to expand the arcing, as the plasma cloud is essentially ionized gases and smoke that are conductive.

5. An electric **"arc flash"** will occur during any electric arc due to the energy discharged. The arc can instantly heat the surrounding air to temperatures as high as 35,000° F, and vaporize metal in the equipment.

(E) EVIDENCE EXAMINATION:

An Electrical Engineering examination of the evidence was conducted on August 27, 2014 at the Reno Fire Station #3 in Reno, NV. Present were George J. Hogge PE, Principal Electrical Engineer of Engineering Forensics Experts LLC and other representatives for NV Energy as well as representatives and personnel from City of Sparks, City of Reno, and representatives for the resident of the home.

A number of digital photographs were taken by EFX during the evidence examination. Selected photographs are attached below. Some of the attached photos might be rotated and/or cropped for clarity, however all photos are stored by EFX in their original digital format.

EFX did not conduct a scene examination. Photos of the scene shown by Reno FD personnel showed that the meter was mounted on an exterior wall in an entryway that had a deck overhead. The exterior of the home appeared to be some type of wood paneling.

The initial evidence presented during this examination had been removed and retained by the Reno Fire Department without allowing NV Energy representatives to inspect it at the scene, and consisted of a typical all in one residential service entrance section (SES) consistent with being rated at 240/120 volts and 150-200 amps (Photos 1-6). The SES had apparently been subjected to significant heat due to the fire. The damage pattern from that heat attack was more significant to the left side than the right, which would be expected due to the location of the panel in an entry way with the right side facing outward.

The electrical wiring extending from the SES panel was apparently installed using copper Type NM Non Metallic Sheathed Cables, which are intended for and suitable for such use in a residential structure. For purposes of this report, the Type NM cables will be referred to by the trade jargon of "romex". A typical romex cable will have an outer thermoplastic sheath surrounding a specific number of insulated "current carrying" conductors as well as one (1) non-insulated conductor that is intended to be used as a ground conductor only. The number of insulated conductors is typically stated in the sizing convention, for example 14/2 romex will have two (2) insulated #14 AWG conductors and a non-insulated ground. The first run of romex that extends from the circuit breaker panel into the structure is typically referred to as the "home run" until it reaches the first device or load.

The SES was divided vertically into two compartments. The right side of the panel contained the main and branch circuit breakers as well as the romex home runs that were terminated to the branch circuit breakers. The home run conductors from the panel had been roughly cut by the Reno FD just outside the rear of the panel where they had extended into the wall of the home (Photo 7). No attempt had been made to trace or mark those conductors before cutting them. The insulation on all of the remaining conductors was completely consumed and no evidence of arcing was found on the minimal portions of the home runs that were retained (Photos 8-10). The handles were burned off from the main and branch circuit breakers such that their status could not be determined as to whether they were tripped (Photo 9). As such, the investigators are unable to determine if there was any electrical activity on the building wiring systems.

The left side of the SES is considered the "utility compartment" and consisted of the meter loop and sockets in the upper portion and the utility lateral pull and termination section in the lower portion. Photo 11 shows the utility pull section with typical 3 aluminum service lateral conductors. Melting consistent with arcing was found at the "knockout" where the lateral conductors extended from the bottom of the panel (Photo 12). This will be discussed below in the Analysis section. These aluminum lateral conductors were terminated to typical mechanical lugs in the SES panel. The 2 larger conductors that were originally insulated are the 240 volt phase conductors and are terminated to buses (solid bar type conductors) that extend to the upper portion of the utility section where they supply power to the upper meter stabs, typically referred to as the "line" side or supply side of the meter. The smaller uninsulated lateral conductor is the ground/neutral and was terminated to a common ground bus that was bonded to the

metal SES panel as well as extended to the ground and neutral terminal strips in the circuit breaker side of the panel.

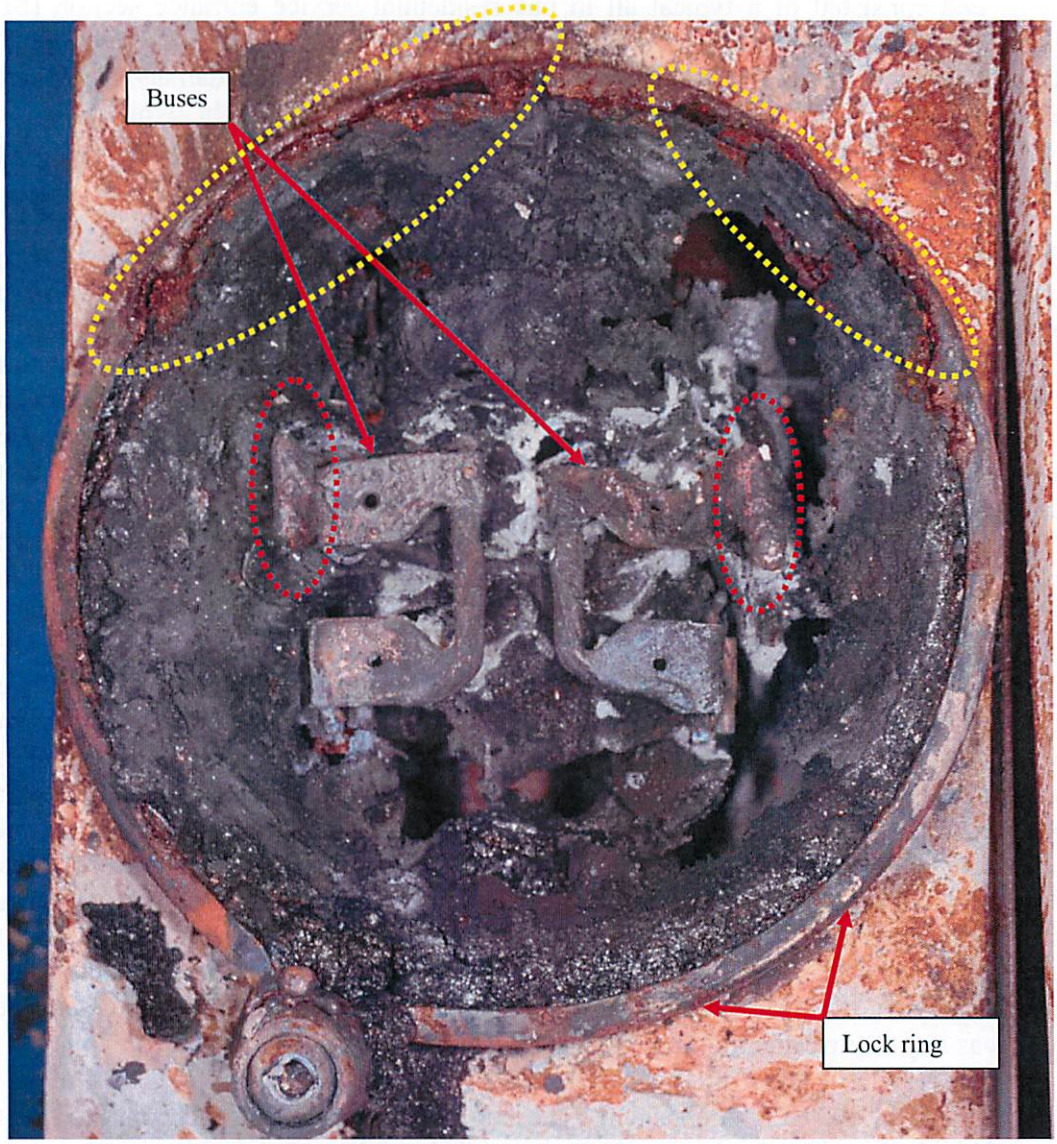


Figure 1. Remains of utility meter in SES as presented for examination.

Photo 13 (repeated above as Figure 1) shows the front view of the utility meter still in place within the meter loop. The utility lock ring was still in place around the perimeter of the round meter. Locations of melting were evident around the upper front of the lock ring as shown with the yellow dashed ovals. The solid copper conductors typically referred to as buses are seen towards the center of the meter. These buses were still basically intact in the lower portion of the meter where they extend rearward to the load side stabs which were still plugged into the "jaws" or socket of the meter base. The red ovals added to Figure 1 show where the upper extents of the buses were melted away.

Photos 14-15 show the meter loop and the remaining plastic mounting back plate of the meter after removal from the SES, leaving the remaining buses still plugged into the load side socket jaws. Note that a significant portion of the plastic base from the meter is still present.

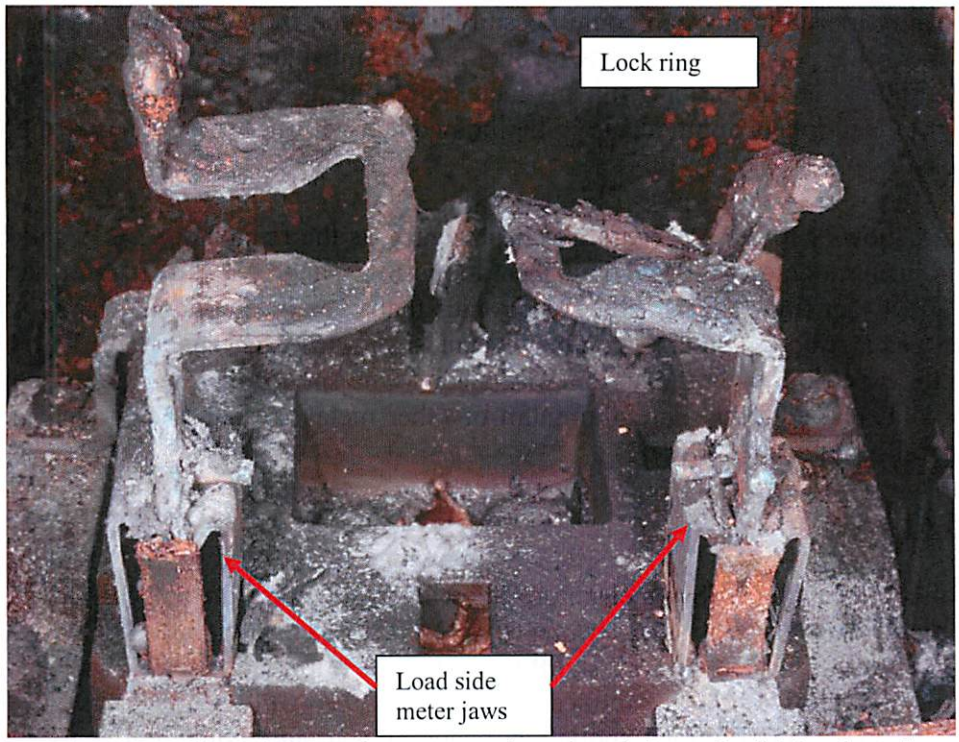


Figure 2. Remains of buses from metering circuit board within electric meter.

Photos 16 and 17 are closer views of the remains of the meter buses. Photo 16 is repeated as Figure 2 above showing where the buses become "stabs" and are inserted into the meter jaws on the load or bottom side.

A loose piece of metal as found in the panel that had apparently been melted during the incident and rehardened (Photo 18). That piece of metal was consistent with the partial remains of one of the meter stab/jaw mating pieces. Photo 19 shows the remains of the line side or upper meter jaws which are mostly melted away. This photo also shows the gap between the melted portion on the buses and the line side meter jaws. This portion of the buses was where the contacts were for the meter service disconnect.

Additional artifacts were then delivered to the exam site by fire investigator Duane Lemons CFI of Terry Taylor Fire Investigations (Photos 20-28). Some of those artifacts were consistent with remains of the utility meter.

Photo 21 shows the remains of contact sets consistent with those that would have been in the utility meter. These contacts can be used to remotely disconnect the power at the meter and would have been in the gap between the buses and the line side meter jaws. Photo 22 shows remains consistent with the solenoid coil and magnet used to operate the contact points within the meter. Photo 23 shows remains of circuit boards that are

consistent with those from within the meter. Photos 24-25 show components that are consistent with those found soldered to circuit boards within the meter.

Photos 26-27 show a large mass of re-solidified charred plastic that was reportedly found below the SES meter panel and was presented as part of the meter. This mass contained significantly more plastic than could possibly have come from the meter, indicative that there were other plastic components for fuel in the immediate vicinity. Photo 27 shows a capacitor that is not consistent with any meter components, which would prove that there were other electronics components in the immediate vicinity of the meter at the time of the fire.

Photo 28 shows another artifact that was presented as the remains of an irrigation timer that had been mounted to the wall adjacent to the SES panel. No further information was given about that timer or any other electronics that were in the vicinity. Also with that artifact was a solid copper #12 conductor consistent with what appears to be a bonding conductor extending from the bottom of the SES. One spot of melting was found on that bond conductor that had some aluminum or other metal present, indicative of eutectic melting (alloying).

(F) ANALYSIS:

The collection of the SES panel before allowing NV Energy to inspect would clearly constitute evidence spoliation according to NFPA 921 and also violates ASTM E1188–05 "Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator". As defined in the NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition, spoliation occurs when any collection activity denies another party the opportunity to obtain the same evidentiary value as did any prior investigator:

[a] ***11.3.5 Spoliation of Evidence.*** *Spoliation of evidence refers to the loss, destruction, or material alteration of an object or document that is evidence or potential evidence in a legal proceeding by one who has the responsibility for its preservation. Spoliation of evidence may occur when the movement, change, or destruction of evidence, or the alteration of the scene significantly impairs the opportunity of other interested parties to obtain the same evidentiary value from the evidence, as did any prior investigator.*
11.3.5.1 Responsibility. *The responsibility of the investigator (or anyone who handles or examines evidence) is evidence preservation, and the scope of that responsibility varies according to such factors as the investigator's jurisdiction, whether he or she is a public official or private sector investigator, whether criminal conduct is indicated, and applicable laws and regulations. However, regardless of the scope and responsibility of the investigation, care should be taken to avoid destruction of evidence.*

11.3.5.3 ***Remedies for Spoliation.*** *Criminal and civil courts have applied various remedies when there has been spoliation of evidence. Remedies employed by the courts may include discovery sanctions, monetary sanctions, application of evidentiary inferences, limitations under the rules of evidence, exclusion of expert testimony, dismissal of a claim or defense, independent tort actions for the intentional or negligent destruction of evidence, and even prosecution under criminal statutes relating to obstruction of justice. Investigators should conduct their investigations so as to minimize the loss or destruction of evidence and thereby to minimize allegations of spoliation.*

One very important aspect of the investigation that the removal of the panel has denied the defense is the opportunity to conduct any arc mapping of the structure. This becomes extremely important in any matter where the utility meter is considered a possible origin of the fire. If there is any arcing found on any conductor downstream from the meter, then the meter could not possibly be the origin of the fire, hence could not be the cause.

NFPA 921 Guide For Fire and Explosion Investigations states: [b]

"*17.4.5* ***Arc Surveys or Arc Mapping.*** *Arc surveys (also known as arc mapping) is a technique in which the investigator uses the identification of arc locations or "sites" to aid in determining the area of fire origin. This technique is based on the predictable behavior of energized electrical circuits exposed to a spreading fire. The spatial relationship of the arc sites to the structure and to each other can be a pattern, which can be used in an analysis of the sequence in which the affected parts of the electrical system were compromised. This sequential data can be used in combination with other data to more clearly define the area of origin."*

The damages to the utility electric meter were consistent with a relatively high amperage arcing event. This is quite typical of damages found when an arcing event occurs in SES equipment on residential or commercial services when that arcing occurs upstream from the protection device (main circuit breaker) of the SES. This is due to the fact that the secondary of a typical utility transformer does not have any fusing or circuit breakers which is the industry standard, typical for all utilities. The temperature of a copper arc starts around 5100 degrees K^c (about 8,700°F) and can get to 35,000°F with larger currents. The melting temperature of copper is 1981°F so a high amperage arcing event can quickly melt a significant amount of solid copper. Another important fact to consider with high amperage arcing is that once the arc is initiated, the surrounding air becomes ionized plasma, which causes the arcing to spread rapidly to adjacent conductors of different potential including the grounded panel. This would explain the melting of the copper buses and contacts within the meter as well as the melting of the steel meter retainer "lock" ring in the vicinity of the buses.

The external clear cover over these modern meters is constructed of thermoplastic to provide durability and prevent breakage. When any thermoplastic material is subjected to

fire and begins to char, it becomes a conductor. If that thermoplastic is the insulation on cables, or otherwise comes into contact with energized conductors such as the buses in the meter, this will initiate arcing through char which will typically spread quickly as described above causing significant melting to the buses of the meter which are at 240 volts potential with respect to each other. Due to the massive destruction, it would now be virtually impossible to determine the precise location or cause of the initial arc.

NFPA 921 Guide For Fire and Explosion Investigations states: [d]

*8.10.3 "**Arcing Through a Carbonized Path Due to Thermal Means (Arcing through char).** Insulation on conductors, when exposed to direct flame or radiant heat, may be charred before being melted. That char is conductive enough to allow sporadic arcing through the char. That arcing can leave surface melting at spots or can melt through the conductor, depending on the duration and repetition of the arcing. There often will be multiple points of arcing. Several inches of conductor can be destroyed either by melting or severing of several small segments."*

The possible causes for this fault event and the resulting arc flash will be evaluated using the Scientific Method. As defined in the NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition, the proper methodology for the investigation and analysis of any fire cause is to utilize the Scientific Method:

***3.3.144 Scientific Method.** The systematic pursuit of knowledge involving the recognition and formulation of a problem, the collection of data through observation and experiment, and the formulation and testing of a hypothesis.*

The following flow chart is shown in NFPA 921 to illustrate the basic premise of the scientific method to develop and test hypotheses to determine the cause of a fire:

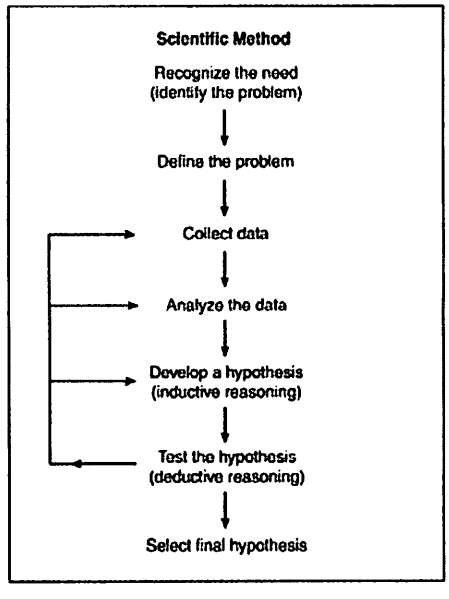


FIGURE 4.3 Use of the Scientific Method.

INSTALLATION:
This meter was installed into an existing panel on August 21, 2012, almost 2 years prior to the arc event, which means it has survived through 8 seasons and many thermal cycles. If the meter was installed incorrectly to cause such an event, that event would have very likely occurred during or very quickly after the installation activities and not almost 1 year later. As shown in Figure 3 below, the meter stab prongs were placed securely into

the jaws of the panel during installation. Error during installation was eliminated as a possible cause of the arc flash event.

TAMPERING:
The lock ring was found mounted onto the meter base and meter loop of the service panel. The internal portion of the lock mechanism had melted debris and could not be examined during a non-destructive examination. Tampering by any individual could not be eliminated as a possible cause of the arc flash event.

FAILURE OR DEFECT IN METER:
Again, the Sensus meter was installed into an existing panel on August 21, 2012, almost 2 years prior to the arc event, which means it has survived through almost 8 seasons and numerous thermal cycles. If the meter had some internal defect to cause such an event, that event would likely have occurred during or very quickly after the installation activities where it was energized to 240 volts and not almost 1 year later. It is unlikely that any internal failure or defect of the meter would cause this event after that much time. The internal capacitors and MOVs were found to be damaged consistent with external fire attack and were eliminated as a possible cause of any failure.

VOLTAGE SURGE FROM SOURCE:
The meter jaws and stab prongs are energized at 240 volts during normal operations of the service equipment. The uninsulated portions of these jaw sets are separated by about 3 inches of space as well as a dielectric plastic barrier. The voltage level required to cause current to jump that distance through air would be thousands of volts even without a barrier. If there had been such a magnitude of surge, there would be widespread damage to the electrical systems and any appliances with electronics of this house and any others in the vicinity. A voltage surge was eliminated as a possible cause of the arc event.

FAILURE OF THE METER JAWS ASSOCIATED WITH THE SERVICE PANEL:
The melting of the meter stab prongs and the associated line side meter jaws of the panel is very pronounced where the prongs interface with the jaws. This Forensic Electrical Engineer has found many similar failures of such interfaces as a Journeyman Electrician and Electrical Contractor. The meter jaws of the Cutler Hammer service panel rely on spring tension to keep good contact with the stab prongs of the meter assembly. If that spring loses its tension due to thermal cycles or defect, then any current flowing through the interface will begin to cause resistance heating. This exacerbates the typical thermal cycles experienced due to current and ambient temperature fluctuations as well as the weakness of the tension springs. The failure of the panel meter jaws or "hot socket" could not be eliminated as a possible cause of the fire based purely on the physical evidence.

THE TIMING OF THE LAST COMMUNICATION FROM THE METER:
As mentioned above, these "smart meters" communicate data regularly to the utility database over the SCADA system using RF (radio frequency) signals that are generated within the somewhat fragile circuit board components that are located within the meter housing. If there were some catastrophic failure within the meter resulting in the arcing as described above, that would cause the failure of those RF circuit components almost instantaneously. The fact that the fire was called in to 911 emergency services some 57

seconds before that last RF communication would conclusively prove that this fire did not originate within the meter. This is a subject for the Certified Fire Investigator, but common sense would dictate that this fire had been burning and growing for a significant amount of time before a neighbor would see it over the fence and call it in.

References:

[a] From NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition. Article 11.3.5.

[b] From NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition. Article 17.4.5.

[c] From *Temperature of a Copper Arc, Journal of Research of the National Bureau of Standards* Vol 661, No. 1, January–February 1962. Authored by Charles H. Corliss. p.1.

[d] From NFPA 921 *Guide for Fire and Explosion Investigations*, 2011 Edition. Article 8.10.3.

(G) CONCLUSION:

It is the opinion of this Forensic Electrical Engineer and Journeyman Electrician that the proximate cause of the arcing and damage at the meter was external fire attack. It is not physically possible for the meter to have communicated normally after an arcing event occurred that had been initiated internally to the meter.

It is therefore not physically possible that the fire originated at the electric utility meter, hence the meter could not possibly have been the cause of the fire.

These conclusions were reached with reasonable scientific certainty based on:

1. Examinations of the evidence artifacts in the laboratory.
2. The undersigned investigator's education, training, and experience as a Journeyman Electrician and Registered Professional Electrical Engineer.

(H) COMMENTS:

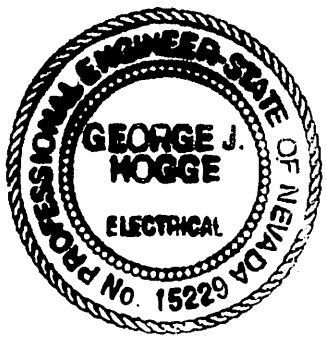
The statements and conclusions contained herein are based on the information given to and gathered by Engineering Forensics Experts at the time of this report. If additional information becomes available we reserve the right to change our conclusions.

Thank you for the opportunity to be of service.

George J Hogge P.E. 8/30/14

SIGNATURE DATE

George J. Hogge PE
Principle Forensic Engineer



EXAMINATION PHOTOGRAPHS

1. Front view of SES panel.

2. Top view of SES panel.

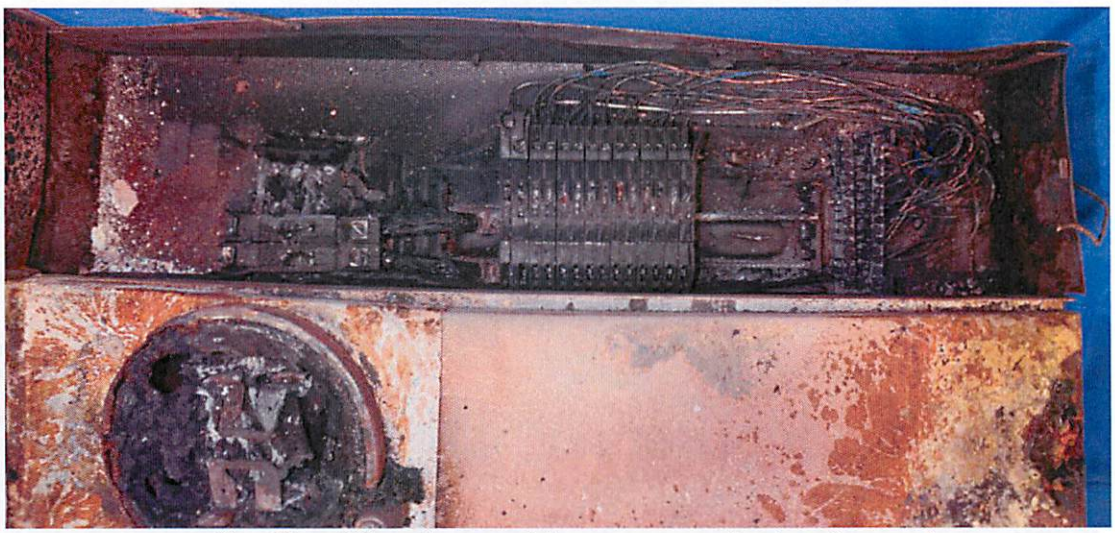
3. **Right side view of SES panel.**

4. **Left side view of SES panel.**

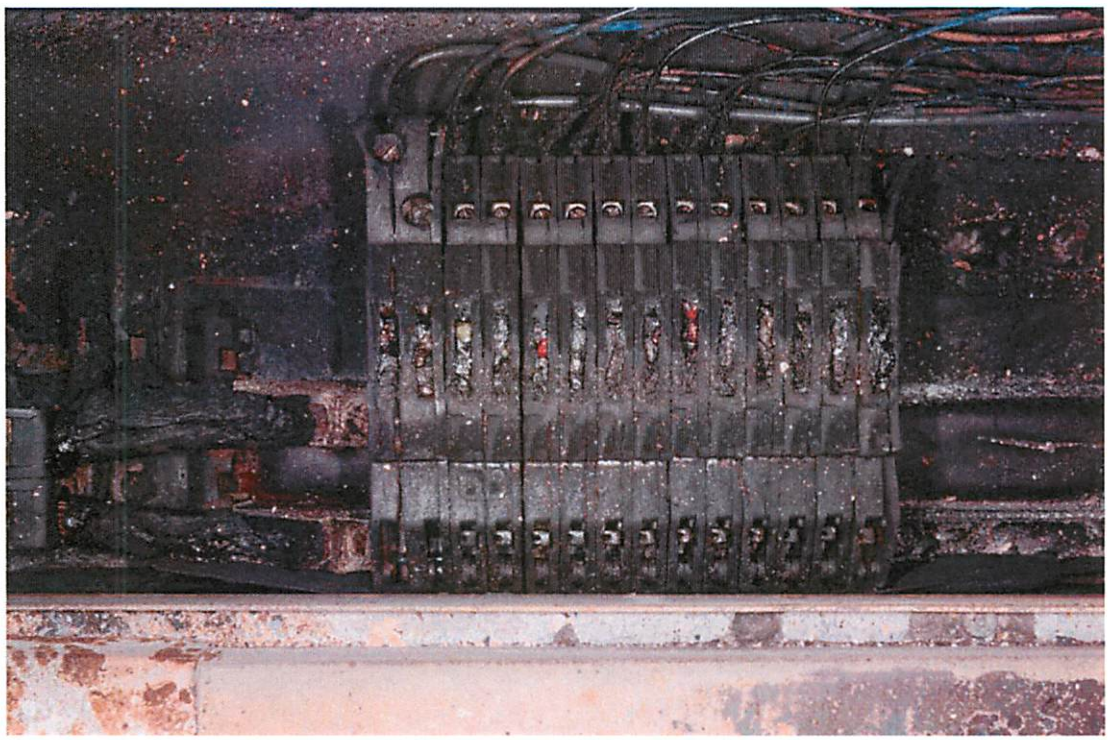
5. Bottom view of SES panel.

6. Rear view of SES panel.

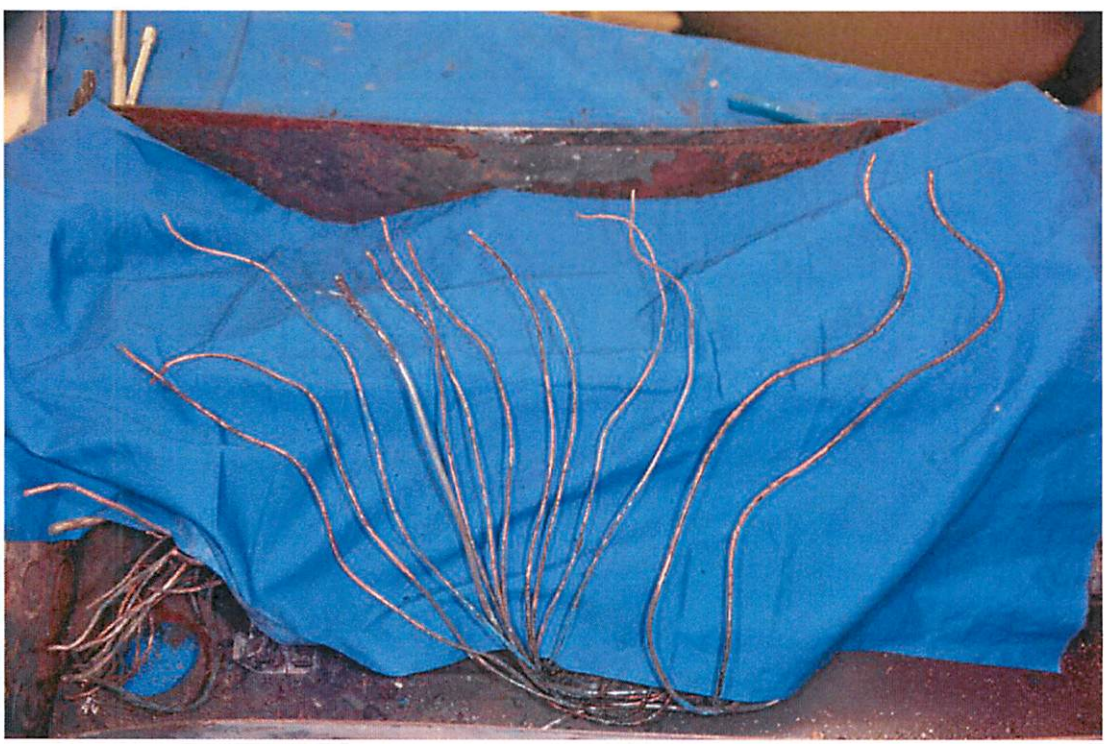
7. Romex home run conductors extending through rear of circuit breaker side of SES panel.



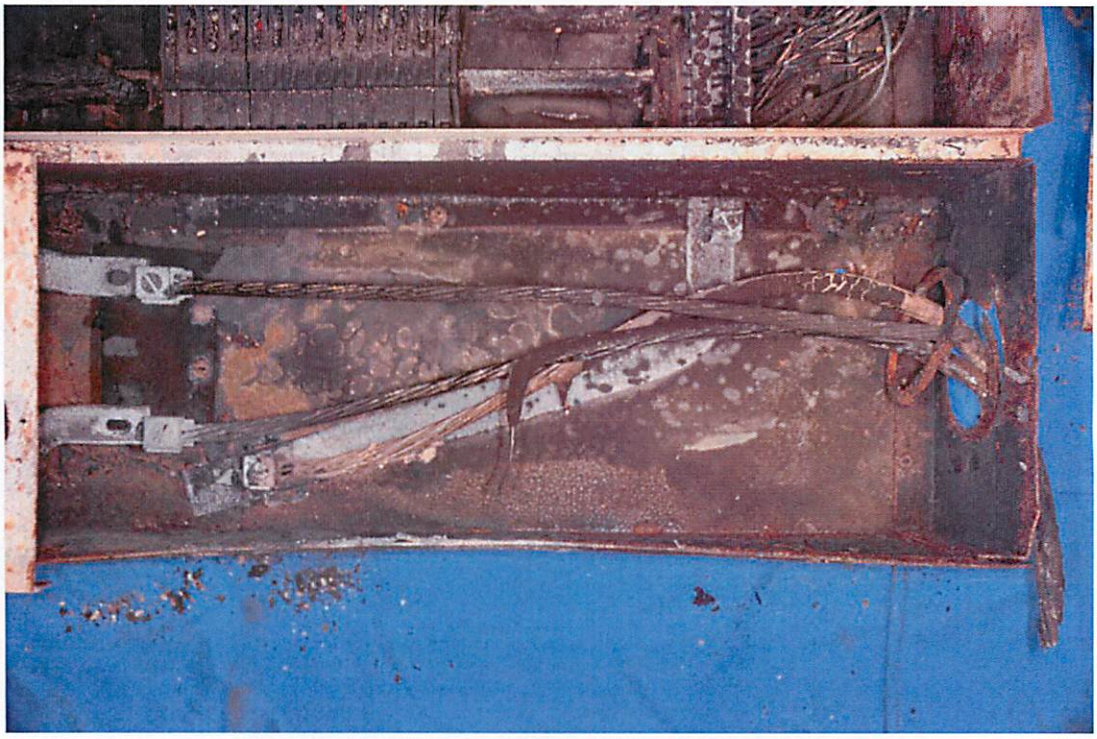
8. Circuit breakers and home run conductors in panel.



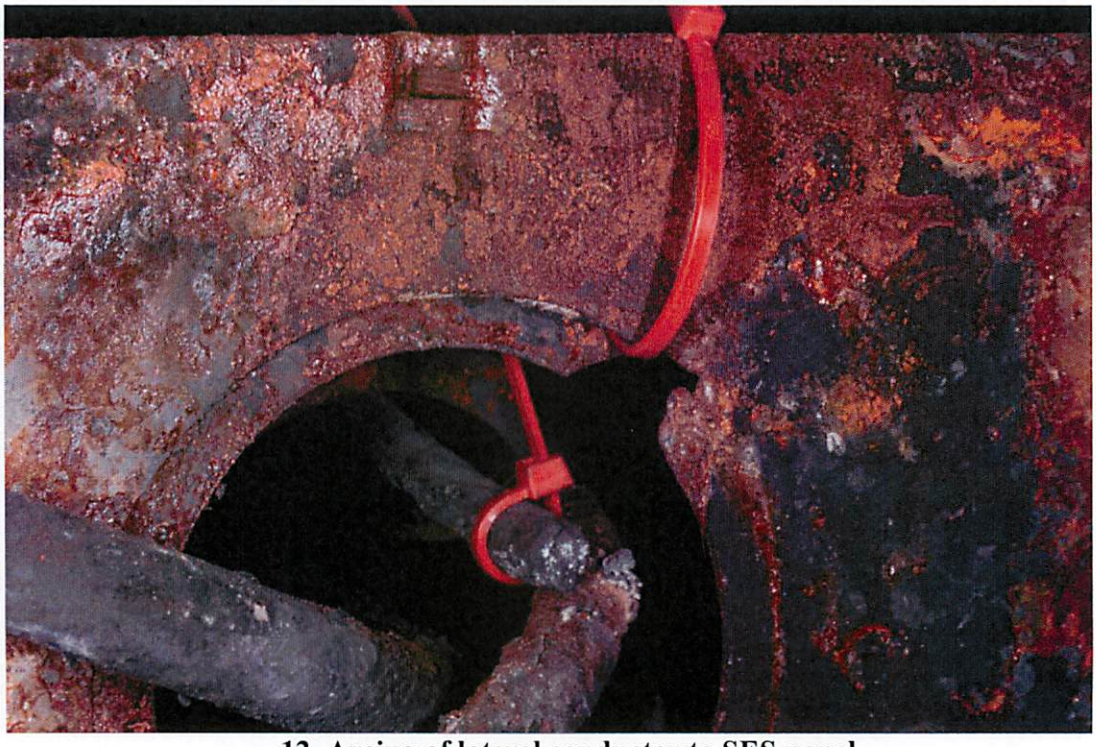
9. Closer view of branch circuit breakers.



10. Home run conductors laid out for examination.

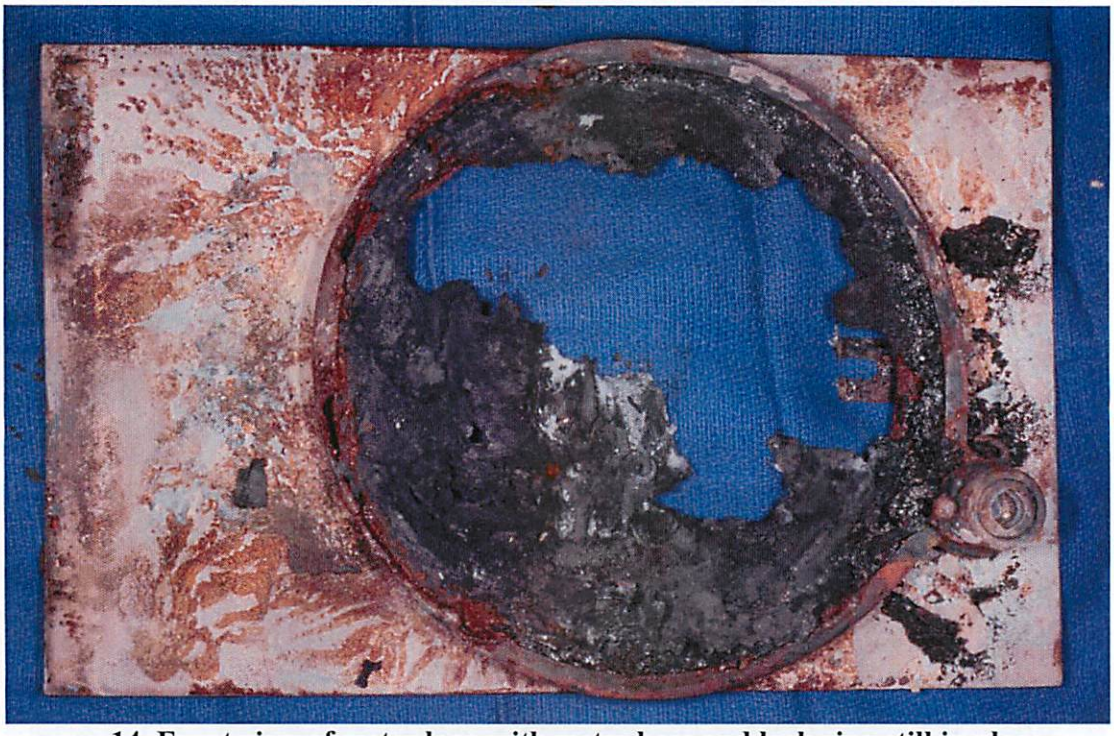


11. Utility lateral conductors in utility pull section.



12. Arcing of lateral conductor to SES panel.

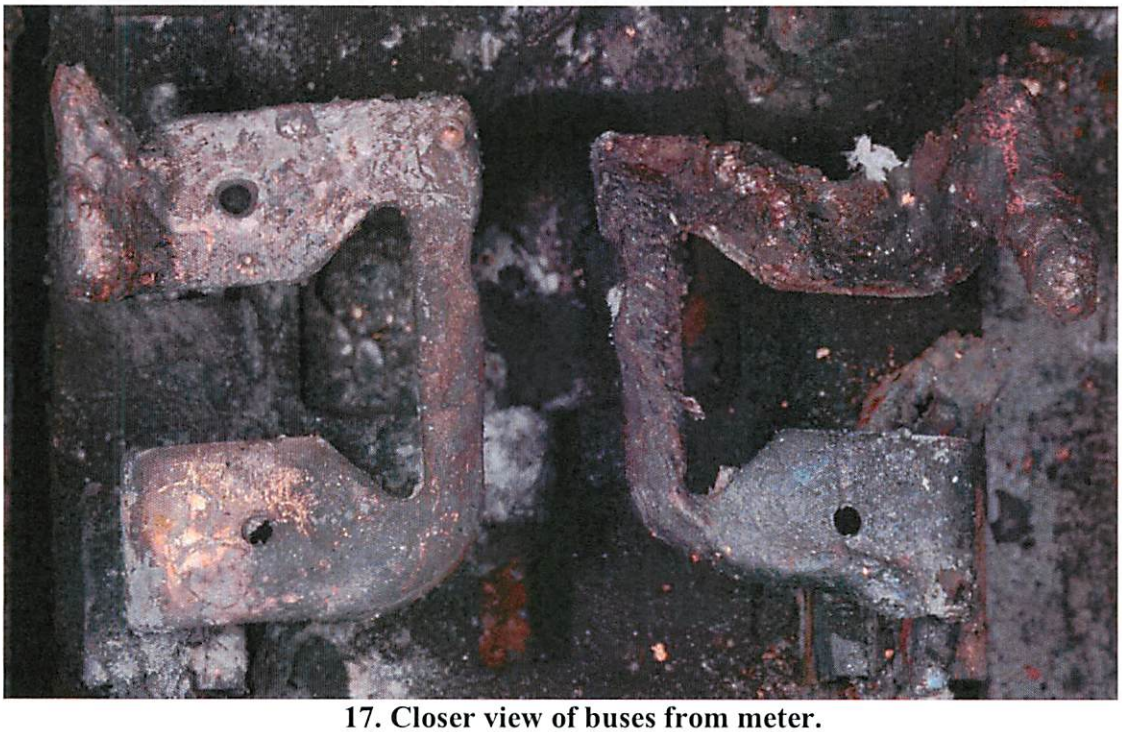
13. Remains of meter in SES as presented for examination.



14. Front view of meter loop with meter base and lock ring still in place.

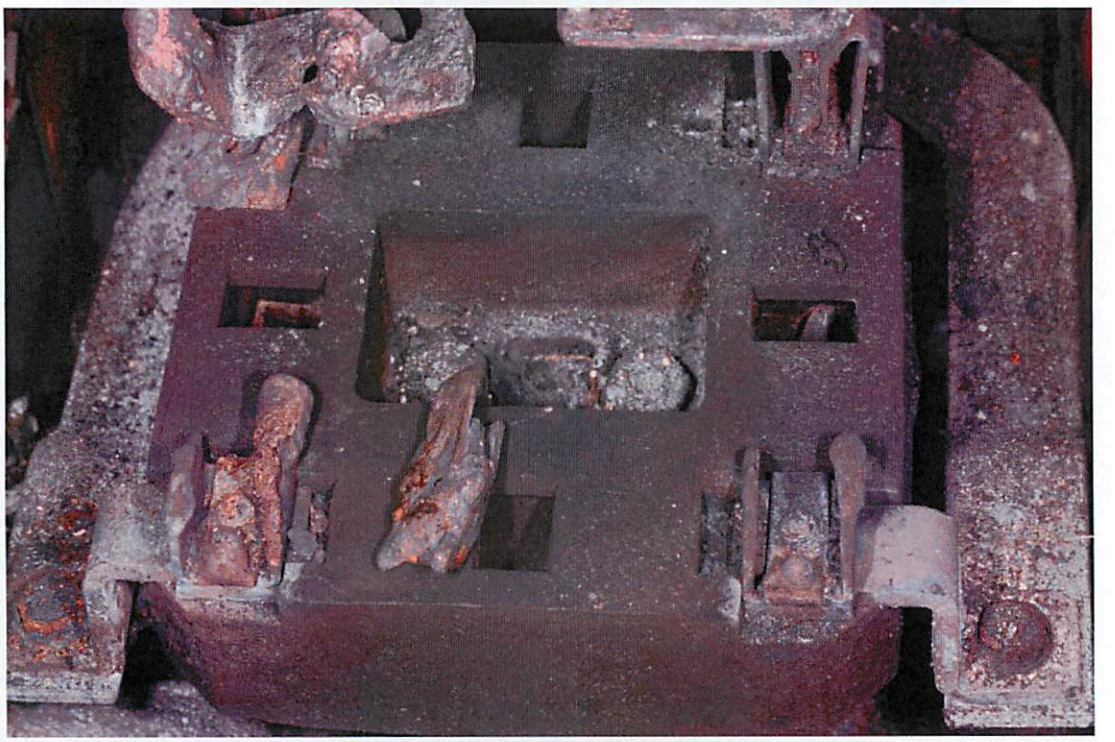
15. Rear view of meter loop with meter base and lock ring still in place.

16. Remains of buses from metering circuit board within electric meter.



17. Closer view of buses from meter.

18. Remains of meter stab and jaws found loose in panel.



19. Remains of line side meter jaws.

20. Artifacts retained by Duane Lemons.

21. Remains of contacts consistent with meter bus disconnect.

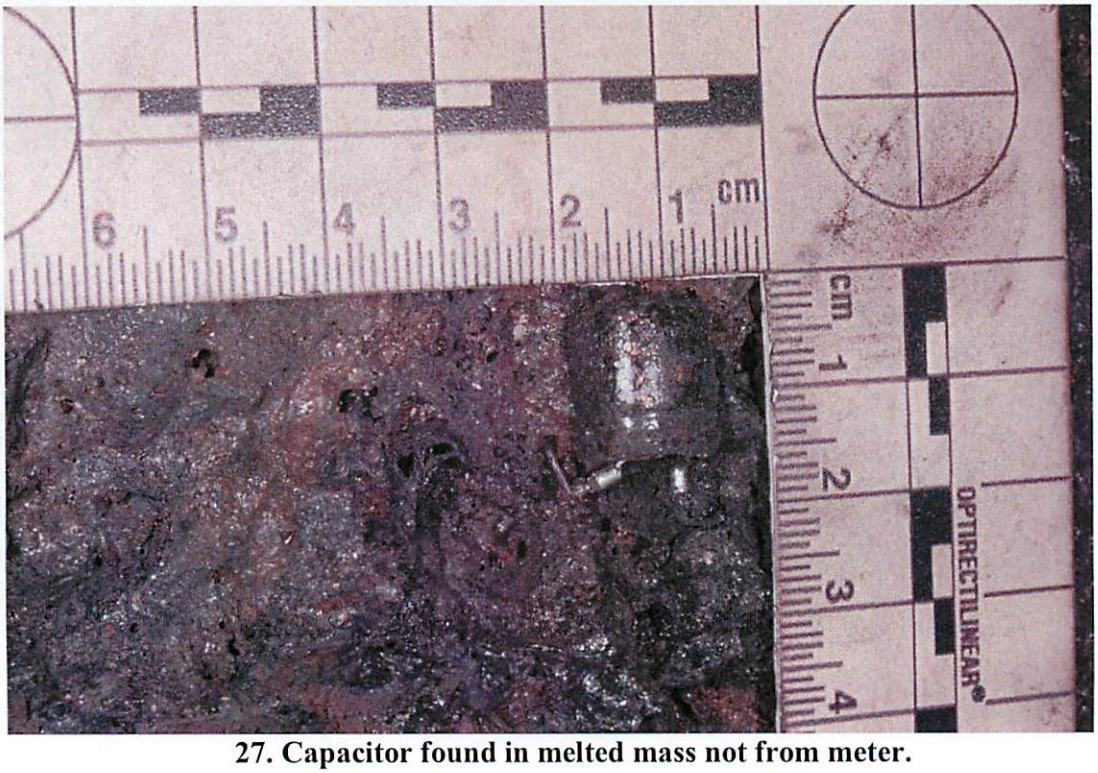
22. Meter disconnect contact solenoid actuator coil and magnet.

23. Circuit boards consistent with meter components.

24. Relay, MOV, and capacitor consistent with meter components.

25. Relay, MOV, and capacitor consistent with meter components, end view.

26. Large mass of melted plastic presented by fire investigator as from meter.



27. Capacitor found in melted mass not from meter.

28. Remains of electronics presented as irrigation timer.

ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

ATTACHMENT M

1521 Church Street, Gardnerville
June 4, 2013 Incident

East Fork Fire Protection District Report

Incident Report

2013-0002217 -000

EAST FORK FIRE AND PARAMEDIC DISTRICT

Basic		
Alarm Date and Time	12:12:00	Tuesday, June 4, 2013
Arrival Time	12:17:00	
Controlled Time	12:18:00	
Last Unit Cleared Time	13:47:00	
Response Time	0:05:00	
Priority Response	Yes	
Completed	Yes	
Reviewed	Yes	
Release to Public	Yes	
Fire Department Station	ST07	
Shift	B	
Incident Type	155 - Outside stationary compactor/compacted trash fire	
Aid Given or Received	N - None	
Alarms	1	
Action Taken 1	57 - Provide light or electrical power	
Action Taken 2	81 - Incident command	
Action Taken 3	86 - Investigate	
Casualties	No	
Apparatus - Suppression	2	
Personnel - Suppression Personnel	4	
Property Loss	$0.00	
Contents Loss	$0.00	
Property Value	$0.00	
Contents Value	$0.00	
Property Use	000 - Property Use, other	
Location Type	Address	
Address	1521 CHURCH ST	
City, State Zip	GARDNERIVLLE, NV 89410	
District	2	

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Office of State Fire Marshal
Carson City, Nevada

Apparatus - R7		
Apparatus ID	R7	
Response Time	0:04:00	
Apparatus Dispatch Date and Time	12:12:00	Tuesday, June 4, 2013
En route to scene date and time	12:13:00	Tuesday, June 4, 2013
Apparatus Arrival Date and Time	12:17:00	Tuesday, June 4, 2013
Apparatus Clear Date and Time	12:24:00	Tuesday, June 4, 2013
Apparatus priority response	Yes	
Number of People	2	
Apparatus Use	1	
Apparatus Action Taken 1	58 - Operate apparatus or vehicle	
Apparatus Action Taken 2	86 - Investigate	
Apparatus Type	76 - ALS unit	
Personnel 1	10991 - WENNHOLD, ADAM Position: FF/EMT-P Personnel Action Taken 1: 73 - Provide manpower Personnel Action Taken 2: 86 - Investigate	
Personnel 2	3496 - PLUMER, JONATHAN	

Apparatus - R7	
	Position: FF/EMT-P
	Personnel Action Taken 1: 73 - Provide manpower
	Personnel Action Taken 2: 86 - Investigate

Apparatus - E7	
Apparatus ID	E7
Response Time	0:09:00
Apparatus Dispatch Date and Time	12:12:00 Tuesday, June 4, 2013
En route to scene date and time	12:13:00 Tuesday, June 4, 2013
Apparatus Arrival Date and Time	12:22:00 Tuesday, June 4, 2013
Apparatus Clear Date and Time	13:28:00 Tuesday, June 4, 2013
Apparatus priority response	Yes
Number of People	2
Apparatus Use	1
Apparatus Action Taken 1	81 - Incident command
Apparatus Action Taken 2	86 - Investigate
Apparatus Type	11 - Engine
Personnel 1	4302 - PURVIS, TORRIL .
	Position: FF/EMT-P
	Personnel Action Taken 1: 86 - Investigate
	Personnel Action Taken 2: 58 - Operate apparatus or vehicle
Personnel 2	3120 - NORVELL, DAVID M
	Position: CAPT
	Personnel Action Taken 1: 86 - Investigate

Authority	
Reported By	4302 - PURVIS, TORRIL .
	15:34:10 Tuesday, June 4, 2013
Officer In Charge	3120 - NORVELL, DAVID M
	15:37:00 Tuesday, June 4, 2013
Reviewer	3120 - NORVELL, DAVID M
	06:47:23 Wednesday, June 5, 2013

Narratives	
Narrative Name	E7
Narrative Type	Incident
Narrative Date	15:23:05 Tuesday, June 4, 2013
Author	4302 - PURVIS, TORRIL .
Author Rank	FF/EMT-P
Author Assignment	1
Narrative Text	At 1212 hours on Tuesday June 4, 2013 we were dispatched to an outside stationary compactor/compacted trash fire. We arrived on scene at 1217 hours and cleared at 1347 hours. The incident occurred at 1521 CHURCH St, GARDNERIVLLE in District 2. The local station is ST07. The primary task(s) performed at the scene by responding personnel was to provide light or electrical power. No mutual/automatic aid was given or received. E7 was dispatched to Walton's Funeral Home for an possible electrical fire in the breaker box outside. R7 was first on scene, there was no smoke or fire at that time. Per RP flames

Narratives

were seen at the breaker box just prior to arrival. Per NV energy the smart meters have a history of over heating and catching on fire. E7 remained on scene waiting for NV energy, R7 was released. NV energy arrived, disconnected power to the building, command terminated.

Alarm number 0002217 has been assigned to this incident.

End of Report

ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

ATTACHMENT N

1369 North US 395 Highway, Gardnerville
July 1, 2013 Incident

East Fork Fire Protection District Report

Incident Report

2013-0002636 -000

EAST FORK FIRE AND PARAMEDIC DISTRICT

Basic		
Alarm Date and Time	15:14:33	Monday, July 1, 2013
Arrival Time	15:20:51	
Controlled Time	15:21:20	
Last Unit Cleared Time	17:17:00	
Response Time	0:06:18	
Priority Response	Yes	
Completed	Yes	
Release to Public	Yes	
Fire Department Station	ST14	
Shift	C	
Incident Type	162 - Outside equipment fire	
Aid Given or Received	N - None	
Alarms	1	
Action Taken 1	80 - Information, investigation & enforcement, other	
Casualties	No	
Apparatus - Suppression	5	
Personnel - Suppression Personnel	7	
Property Loss	$0.00	
Contents Loss	$0.00	
Contents Value	$0.00	
Property Use	150 - Public or government, other	
Location Type	Address	
Address	1369 N US 395 HWY	
City, State Zip	Gardnerville, NV 89410	
District	02	

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Carson City, Nevada

2 REPORTS + PHOTOS
"SMART" METER FIRES
NV ENERGY TOOK EVIDENCE

Fire	
Number of Buildings Involved	1
Area of Origin	76 - Wall surface: exterior
Heat Source	13 - Arcing
Item First Ignited	81 - Electrical wire, cable insulation
Confined To Origin	1
Type of Material	41 - Plastic
Cause of Ignition	2 - Unintentional
Contribution To Ignition 1	21 - Automatic control failure
Contribution To Ignition 2	34 - Unspecified short-circuit arc
Human Factors	None
Equipment Type	213 - Electric meter, meter box
Equipment Power	11 - Electrical line voltage (>= 50 volts)
Equipment Portability	2 - Stationary

Apparatus - R7		
Apparatus ID	R7	
Response Time	0:06:18	
Apparatus Dispatch Date and Time	15:14:33	Monday, July 1, 2013
En route to scene date and time	15:14:33	Monday, July 1, 2013
Apparatus Arrival Date and Time	15:20:51	Monday, July 1, 2013
Apparatus Clear Date and Time	15:26:34	Monday, July 1, 2013

Apparatus - R7	
Apparatus priority response	Yes
Number of People	2
Apparatus Use	1
Apparatus Action Taken 1	80 - Information, investigation & enforcement, other
Apparatus Type	76 - ALS unit
Personnel 1	3499 - SAFFORD, ROBY
	Position: FF/EMT-P
Personnel 2	3555 - HALL, JEREMY J
	Position: FF/EMT-I

Apparatus - E14	
Apparatus ID	E14
Response Time	0:06:18
Apparatus Dispatch Date and Time	15:14:33 Monday, July 1, 2013
En route to scene date and time	15:14:33 Monday, July 1, 2013
Apparatus Arrival Date and Time	15:20:51 Monday, July 1, 2013
Apparatus Clear Date and Time	15:58:43 Monday, July 1, 2013
Apparatus priority response	Yes
Number of People	2
Apparatus Use	1
Apparatus Action Taken 1	80 - Information, investigation & enforcement, other
Apparatus Type	11 - Engine
Personnel 1	3496 - PLUMER, JONATHAN
	Position: FF/EMT-P
Personnel 2	3104 - KESTELOOT, WALTER W
	Position: CAPT

Apparatus - SAFE10	
Apparatus ID	SAFE10
Response Time	0:06:18
Apparatus Dispatch Date and Time	15:14:33 Monday, July 1, 2013
En route to scene date and time	15:14:33 Monday, July 1, 2013
Apparatus Arrival Date and Time	15:20:51 Monday, July 1, 2013
Apparatus Clear Date and Time	15:45:00 Monday, July 1, 2013
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Action Taken 1	80 - Information, investigation & enforcement, other
Apparatus Type	92 - Command Vehicle
Personnel 1	3301 - CONNELLY, TRACY T
	Position: CAPT

Apparatus - INVEST	
Apparatus ID	INVEST
Response Time	0:06:18
Apparatus Dispatch Date and Time	15:14:33 Monday, July 1, 2013
En route to scene date and time	15:14:33 Monday, July 1, 2013
Apparatus Arrival Date and Time	15:20:51 Monday, July 1, 2013

Apparatus - INVEST	
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Action Taken 1	80 - Information, investigation & enforcement, other
Apparatus Type	60 - Utility Vehicle
Personnel 1	3241 - TAYLOR, TERRENCE D
	Position: FI
	Personnel Action Taken 1: 80 - Information, investigation & enforcement, other

Apparatus - U2	
Apparatus ID	U2
Response Time	0:06:18
Apparatus Dispatch Date and Time	15:14:33 Monday, July 1, 2013
En route to scene date and time	15:14:33 Monday, July 1, 2013
Apparatus Arrival Date and Time	15:20:51 Monday, July 1, 2013
Apparatus priority response	Yes
Number of People	1
Apparatus Use	1
Apparatus Action Taken 1	80 - Information, investigation & enforcement, other
Apparatus Type	60 - Utility Vehicle
Personnel 1	1029 - BLUE, CARY R
	Position: AFF

Authority	
Reported By	3104 - KESTELOOT, WALTER W
	17:37:06 Monday, July 1, 2013
Officer In Charge	3104 - KESTELOOT, WALTER W
	17:37:08 Monday, July 1, 2013
Reviewer	3241 - TAYLOR, TERRENCE D
	11:11:17 Saturday, February 15, 2014

Narratives	
Narrative Name	13-2636
Narrative Type	Incident
Narrative Date	17:24:27 Monday, July 1, 2013
Author	3104 - KESTELOOT, WALTER W
Author Rank	CAPT
Author Assignment	1
Narrative Text	At 1514 hours on Monday July 1, 2013 we were dispatched to an outside equipment fire. Four units were assigned to this incident. Six personnel responded. We arrived on scene at 1520 hours. The incident occurred at 1369 N US 395 Hwy, Gardnerville in District 02. The local station is ST14. The general description of this property is public or government. No mutual/automatic aid was given or received. Details: Arrived on scene to an extinguished fire in the electrical utility box / meter. Electrical meter is a new "smart" style meter. Personnel at the Town of Gardnerville Maintenance Yard stated that they smelled smoke and walked around the building to investigate. They discovered workers for a fence company on the ajoining property (Tolar

Narratives

St. side) were using a garden hose to attempt to extinguish the fire. Workers reported a popping sound then flames.

Town of Gardnerville personnel called 911 and used a dry chemical fire extinguisher to stop the fire. Fire department personnel arrived and confirmed that the fire was extinguished. Prevention 101 and NV Energy notified. Preliminary information collected for Prevention 101.

Upon Capt. Taylor's arrival the scene was turned over to him and supression units released. Alarm number 0002636 has been assigned to this incident.

End of Report

Call Number: 130701133

Nature: Structure P2
Reported: 15:11:45 07/01/13
Rcvd By: Adamson T How Rcvd: 9
Occ Btwn: 15:11:35 07/01/13 and 15:11:39 07/01/13
Type: 1f
Priority: 1

Address: 1369 US HWY 395 N; HWY 395; town of gvil
City: Gardnerville

Alarm:

COMPLAINANT/CONTACT

Complainant: , Name#:
Race: Sex: DOB: **/**/**
Address: ,
Home Phone: Work Phone:

Contact: ryan
Address: 1 DOUGLAS COUN
Phone: (775)691-5416

RADIO LOG

Dispatcher	Time/Date	Unit	Code	Zone	Agnc	Description
Preston T	15:13:43 07/01/13	E14	PAGE	EF02	EFFD	Paged call=128f
Preston T	15:13:43 07/01/13	E2	PAGE	EF02	EFFD	Paged call=128f
Preston T	15:13:43 07/01/13	R7	PAGE	EF02	EFFD	Paged call=128f
Preston T	15:13:44 07/01/13	E14	PAGE	EF14	EFFD	Sending pager tone key: 0032
Preston T	15:13:44 07/01/13	E2	PAGE	EF02	EFFD	Sending pager tone key: 0030
Preston T	15:13:44 07/01/13	R7	PAGE	EF07	EFFD	Sending pager tone key: 0044
Preston T	15:13:53 07/01/13	E14	PAGE	EF14	EFFD	Valid tone key: 0032
Preston T	15:13:59 07/01/13	R7	PAGE	EF07	EFFD	Valid tone key: 0044
Preston T	15:14:05 07/01/13	E2	PAGE	EF02	EFFD	Valid tone key: 0030
Preston T	15:15:19 07/01/13	R7	ENRT	EF02	EFFD	incid#=13EF02636 Enroute to a Call call=128f
Deitrick K	15:15:25 07/01/13	371	DISP	DCS2	DCSO	incid#=13SO18544 Assigned to a Call call=128l
Deitrick K	15:15:33 07/01/13	302	DISP	DCS2	DCSO	incid#=13SO18544 Assigned to a Call call=128l
Deitrick K	15:15:37 07/01/13	302	ARRV	DCS2	DCSO	incid#=13SO18544 Arrived on Scene call=128l
Preston T	15:15:41 07/01/13	E14	ENRT	EF02	EFFD	incid#=13EF02636 Enroute to a Call call=128f
Deitrick K	15:16:03 07/01/13	782	ARRV	DCS2	DCSO	c=128l
Deitrick K	15:16:08 07/01/13	782	ENRT	DCS2	DCSO	incid#=13SO18544 Enroute to a Call call=128l
Preston T	15:20:51 07/01/13	R7	ARRV	EF02	EFFD	incid#=13EF02636 Arrived on Scene call=128f
Preston T	15:20:56 07/01/13	E2	CMPL	EF02	EFFD	incid#=13EF02636 Completed Call call=128f
Preston T	15:21:16 07/01/13	E14	ARRV	EF02	EFFD	incid#=13EF02636 Arrived on Scene call=128f

Call Number: 130701133

Windsor A	15:21:24	07/01/13	371	CMPL	DCS2	DCSO	(MDC) Completed call incid#=13SO18544 call=128l
Kruger J	15:21:58	07/01/13	302	CMPL	DCS2	DCSO	(MDC) Completed call incid#=13SO18544 call=128l
Preston T	15:24:24	07/01/13	U2	ENRT	EF02	EFFD	c=128f
Preston T	15:24:49	07/01/13	U2	CMPL	EF02	EFFD	incid#=13EF02636 Completed Call call=128f
Preston T	15:26:34	07/01/13	R7	AEQ	EF02	EFFD	incid#=13EF02636 Available Enroute Quarters call=128f
Preston T	15:27:16	07/01/13	E14	AOS	EF02	EFFD	incid#=13EF02636 Available On Scene call=128f
Deitrick K	15:28:14	07/01/13	371	CMPL	DCS2	DCSO	incid#=13SO18544 Completed Call call=128l
Deitrick K	15:28:15	07/01/13	782	CMPL	DCS2	DCSO	incid#=13SO18544 Completed Call call=128l
Preston T	15:31:02	07/01/13	PR101	ENRT	EF02	EFFD	c=128f
Preston T	15:33:03	07/01/13	R7	CMPL	EF02	EFFD	incid#=13EF02636 Completed Call call=128f
Preston T	15:44:10	07/01/13	PR101	ARRV	EF02	EFFD	incid#=13EF02636 Arrived on Scene call=128f
Preston T	15:58:43	07/01/13	E14	AEQ	EF02	EFFD	incid#=13EF02636 Available Enroute Quarters call=128f
Preston T	16:05:10	07/01/13	E14	CMPL	EF02	EFFD	incid#=13EF02636 Completed Call call=128f
Preston T	17:16:57	07/01/13	PR101	CMPL	EF02	EFFD	incid#=13EF02636 Completed Call call=128f

Call Number: 130701133

COMMENTS

15:12:36 07/01/2013 - Adamson T (ProQA Fire)
Chief Complaint: Structure Fire
Caller Statement: transformer on the bldg blew
15:13:04 07/01/2013 - Adamson T (ProQA Fire)
ProQA Code: 69C02
Unit Response: Pri
- The caller is on scene (1st party).
- A single-level structure is involved.
- The caller has not indicated that there are trapped person(s).
- No one is trapped inside the structure.
- The caller reports that the fire has been extinguished.
- No one is reported to be injured.
15:13:52 07/01/2013 - Preston T
tac silver
15:14:13 07/01/2013 - Adamson T
fire extinguished at time of call per the rp - they had a fire extinguisher
15:16:23 07/01/2013 - Deitrick K - From: Windsor A
fire appears out - smoking
15:20:50 07/01/2013 - Preston T - From: EFR7
doesnt appear to be any fire, out cking
15:21:24 07/01/2013 - Windsor A
cd4/
15:23:09 07/01/2013 - May A
calling nv energy
15:23:13 07/01/2013 - Preston T - From: Kesteloot W
gville cmd, fire ext on the outside of the bldg, smart meter again, contact nv energy
15:24:27 07/01/2013 - May A
nv energy advised, they are on an outage right now in carson, when they clr they will be enroute, unk eta
15:24:29 07/01/2013 - Preston T - From: EFU2
enr w/1
15:24:35 07/01/2013 - Preston T - From: Kesteloot W
to u2 canx
15:24:47 07/01/2013 - Preston T - From: EFU2
aiq
15:26:31 07/01/2013 - Preston T - From: EFR7
clrd by cmd, return
15:27:09 07/01/2013 - Preston T - From: Kesteloot W
term cmd, aos waiting on scene for pr101
15:53:28 07/01/2013 - Preston T - From: Kesteloot W
nv energy on scene
15:58:41 07/01/2013 - Preston T - From: Kesteloot W
scene turned over to pr101
17:16:47 07/01/2013 - Preston T - From: Taylor T
got the photos, close the call out

UNIT HISTORY

Unit	Time/Date	Code
302	15:15:33 07/01/13	DISP
302	15:15:37 07/01/13	ARRV
302	15:21:58 07/01/13	CMPL

Call Number: 130701133

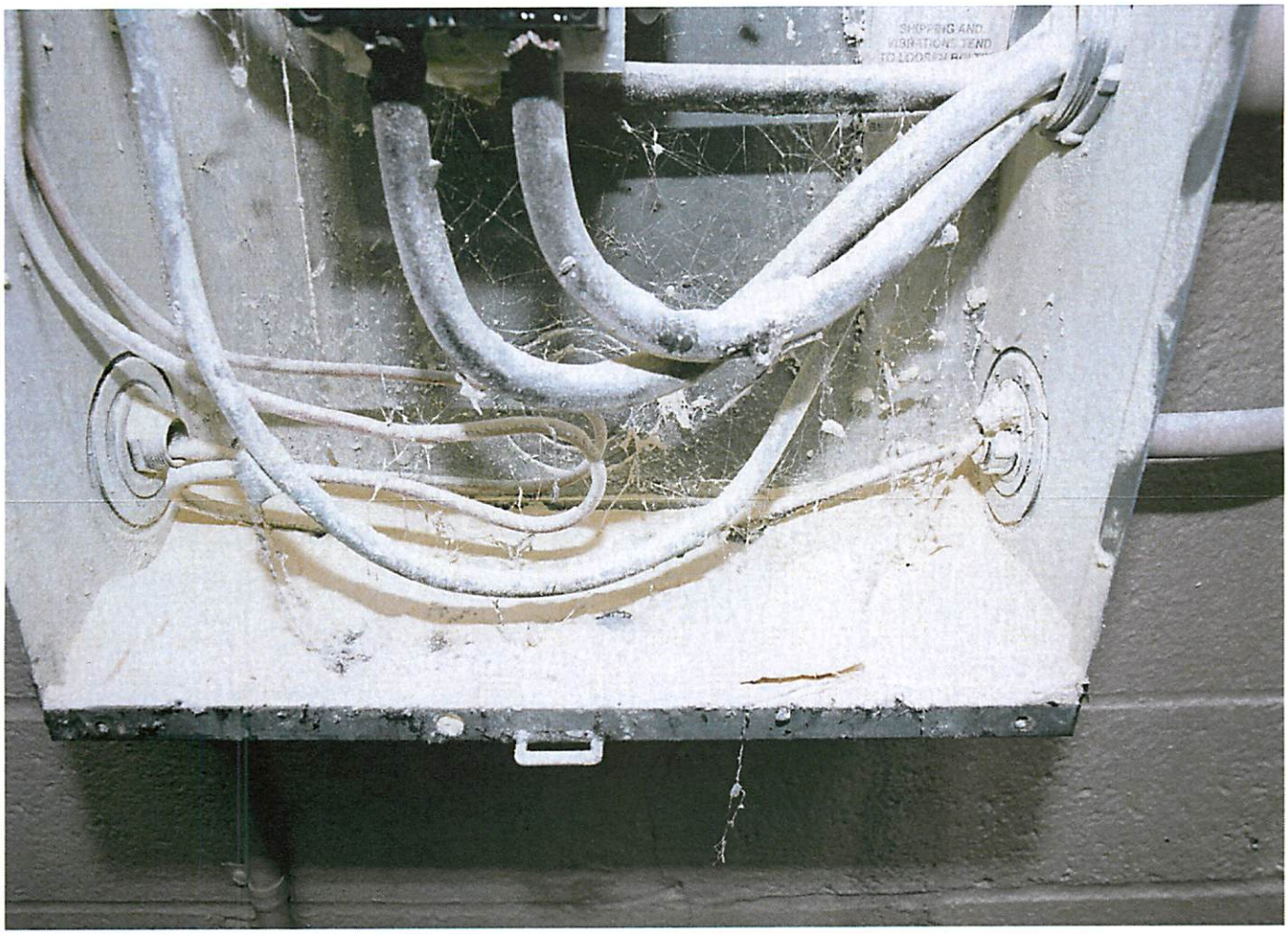
371	15:15:25	07/01/13	DISP
371	15:21:24	07/01/13	CMPL
371	15:28:14	07/01/13	CMPL
782	15:16:03	07/01/13	ARRV
782	15:16:08	07/01/13	ENRT
782	15:28:15	07/01/13	CMPL
E14	15:13:43	07/01/13	PAGE
E14	15:13:44	07/01/13	PAGE
E14	15:13:53	07/01/13	PAGE
E14	15:15:41	07/01/13	ENRT
E14	15:21:16	07/01/13	ARRV
E14	15:27:16	07/01/13	AOS
E14	15:58:43	07/01/13	AEQ
E14	16:05:10	07/01/13	CMPL
E2	15:13:43	07/01/13	PAGE
E2	15:13:44	07/01/13	PAGE
E2	15:14:05	07/01/13	PAGE
E2	15:20:56	07/01/13	CMPL
PR101	15:31:02	07/01/13	ENRT
PR101	15:44:10	07/01/13	ARRV
PR101	17:16:57	07/01/13	CMPL
R7	15:13:43	07/01/13	PAGE
R7	15:13:44	07/01/13	PAGE
R7	15:13:59	07/01/13	PAGE
R7	15:15:19	07/01/13	ENRT
R7	15:20:51	07/01/13	ARRV
R7	15:26:34	07/01/13	AEQ
R7	15:33:03	07/01/13	CMPL
U2	15:24:24	07/01/13	ENRT
U2	15:24:49	07/01/13	CMPL

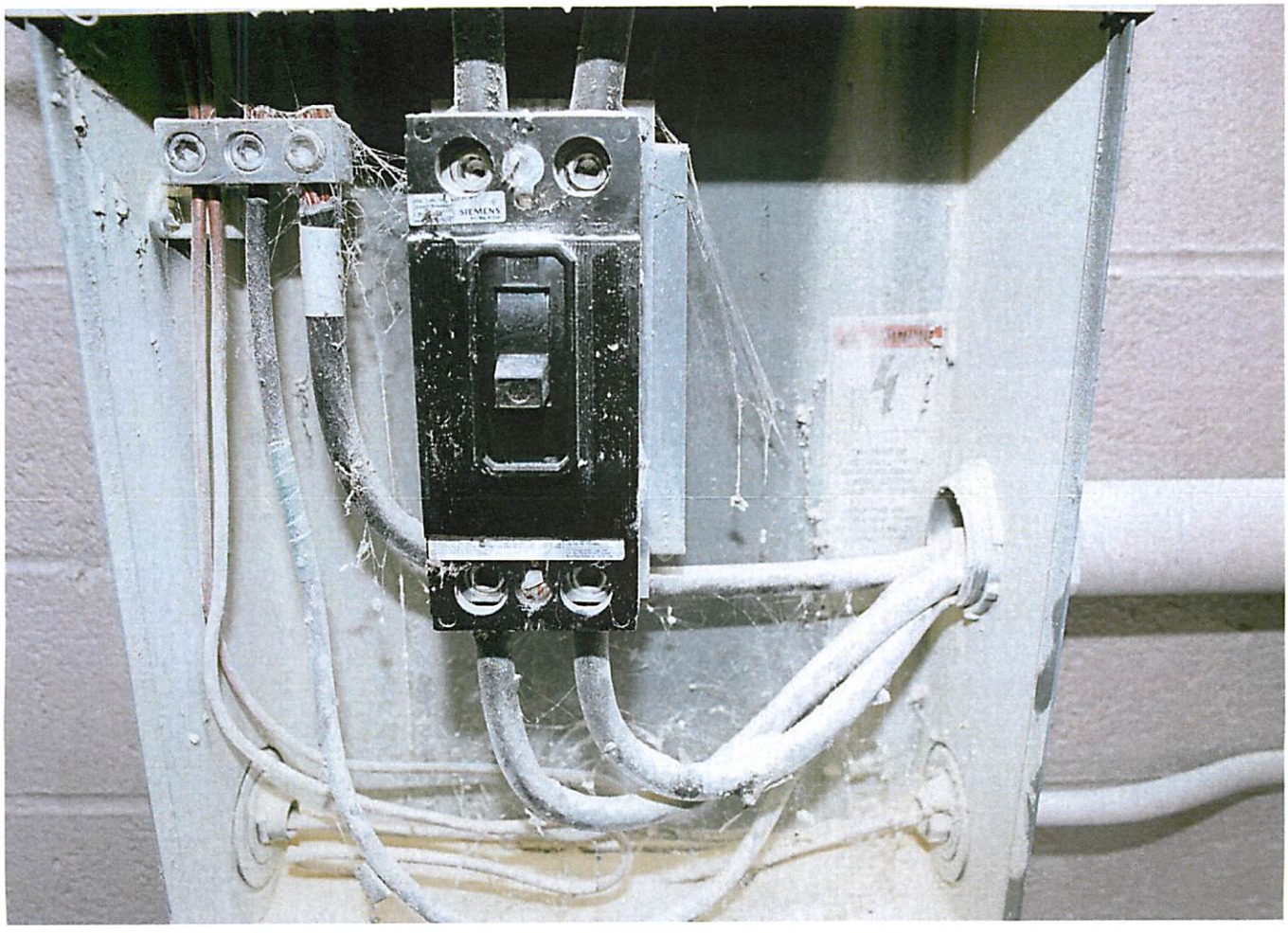
RESPONDING OFFICERS

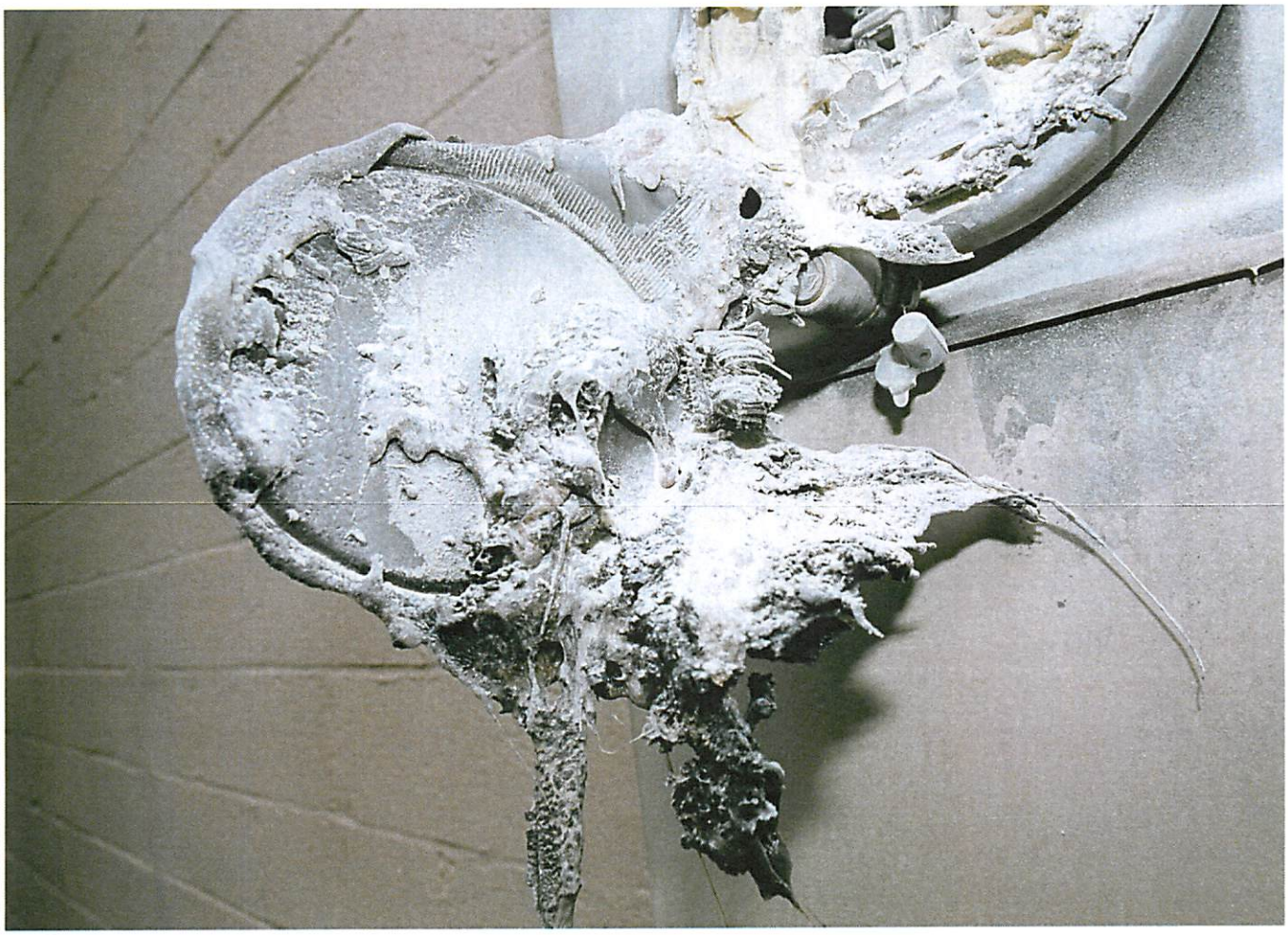
Unit	Officer
302	Kruger J
371	Windsor A
782	Aymami D
E14	Kesteloot W
E2	EFE2
PR101	Taylor T
R7	EFR7
U2	EFU2

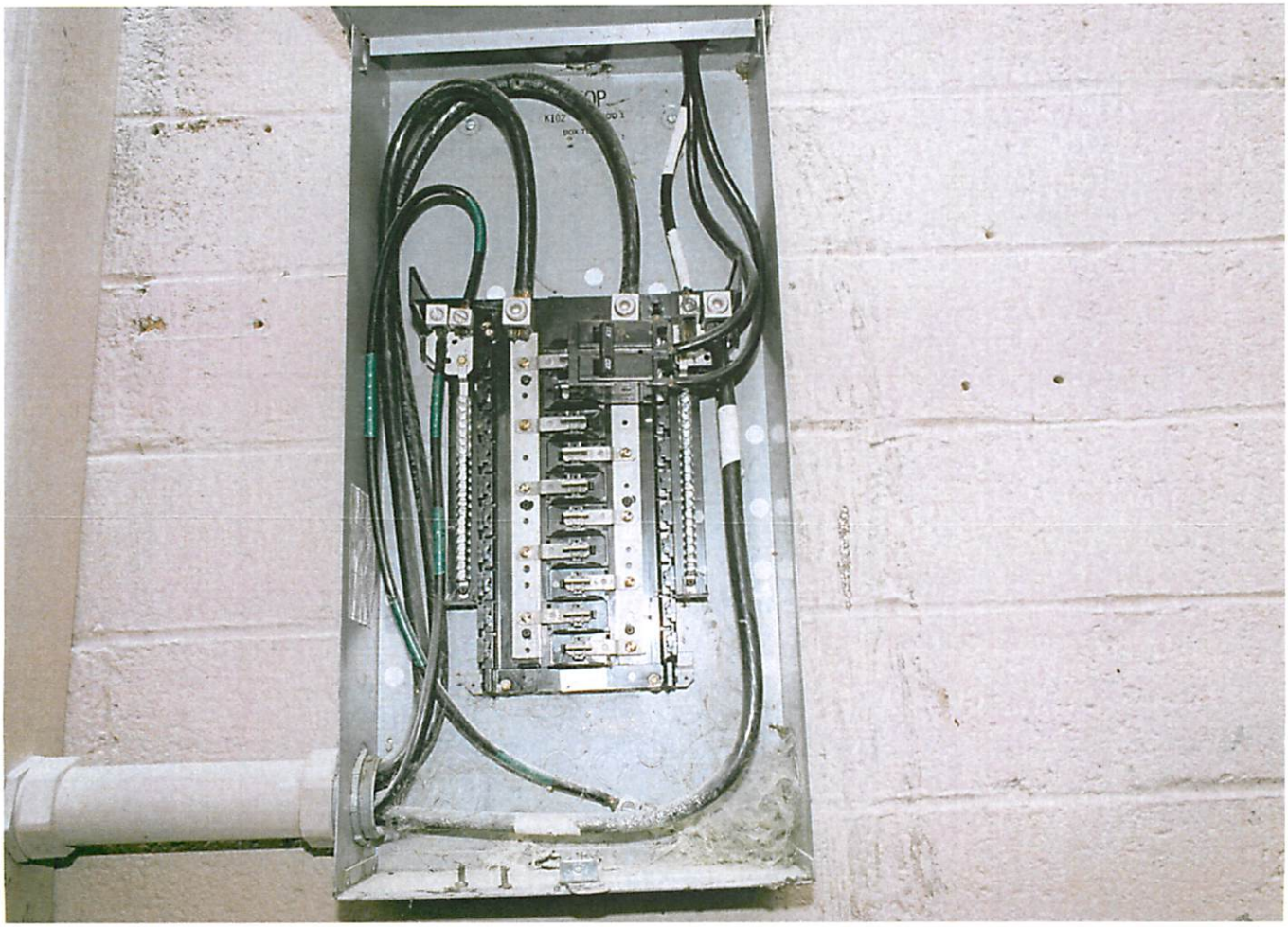
INVOLVEMENTS

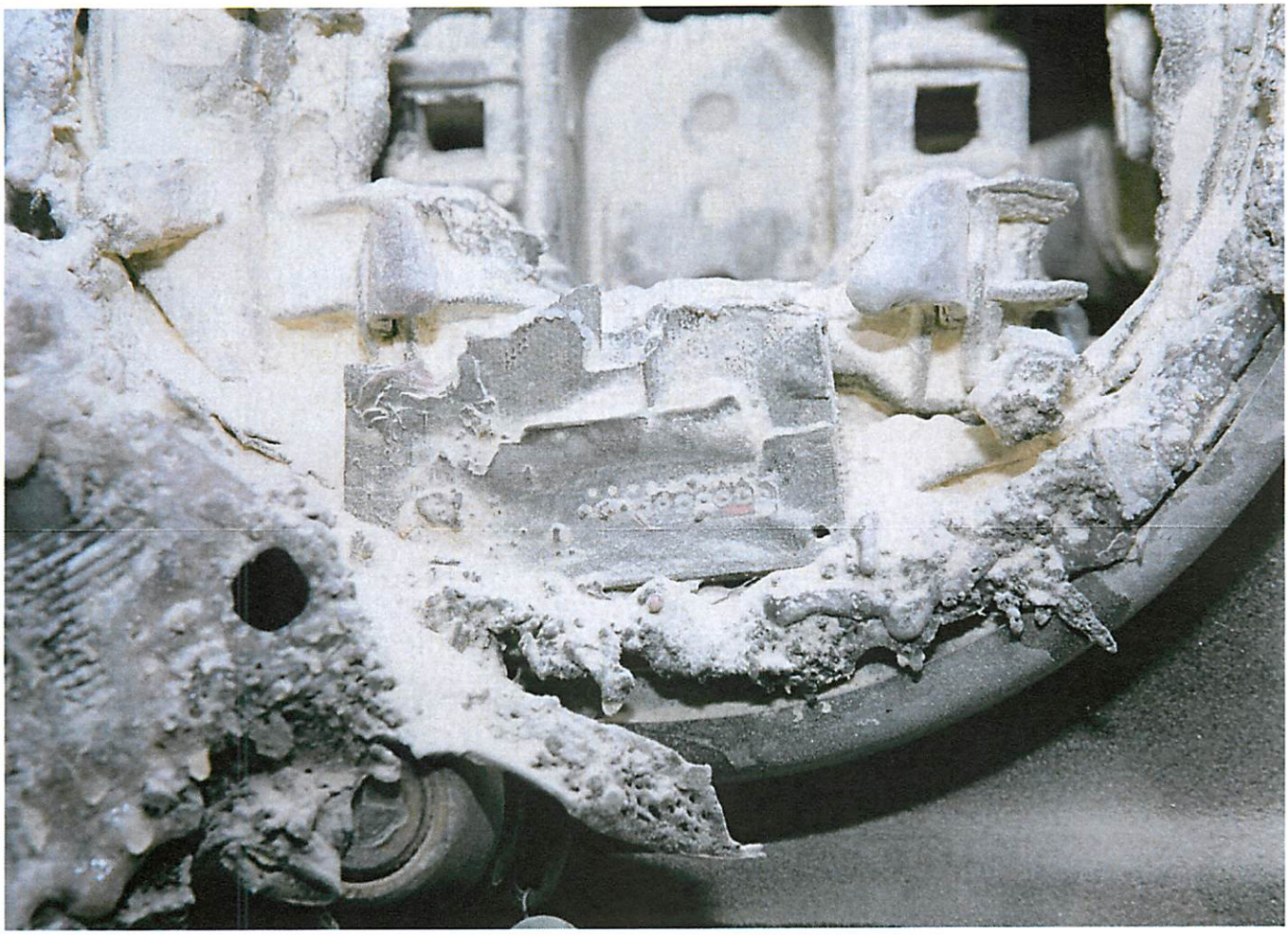
Type	Record#	Date	Description	Relationship
FR	13EF02636	07/01/13	Structure P2 13EF02636	Initiating Call
LW	13SO18544	07/01/13	Structure P2 13SO18544 1369	Initiating Call

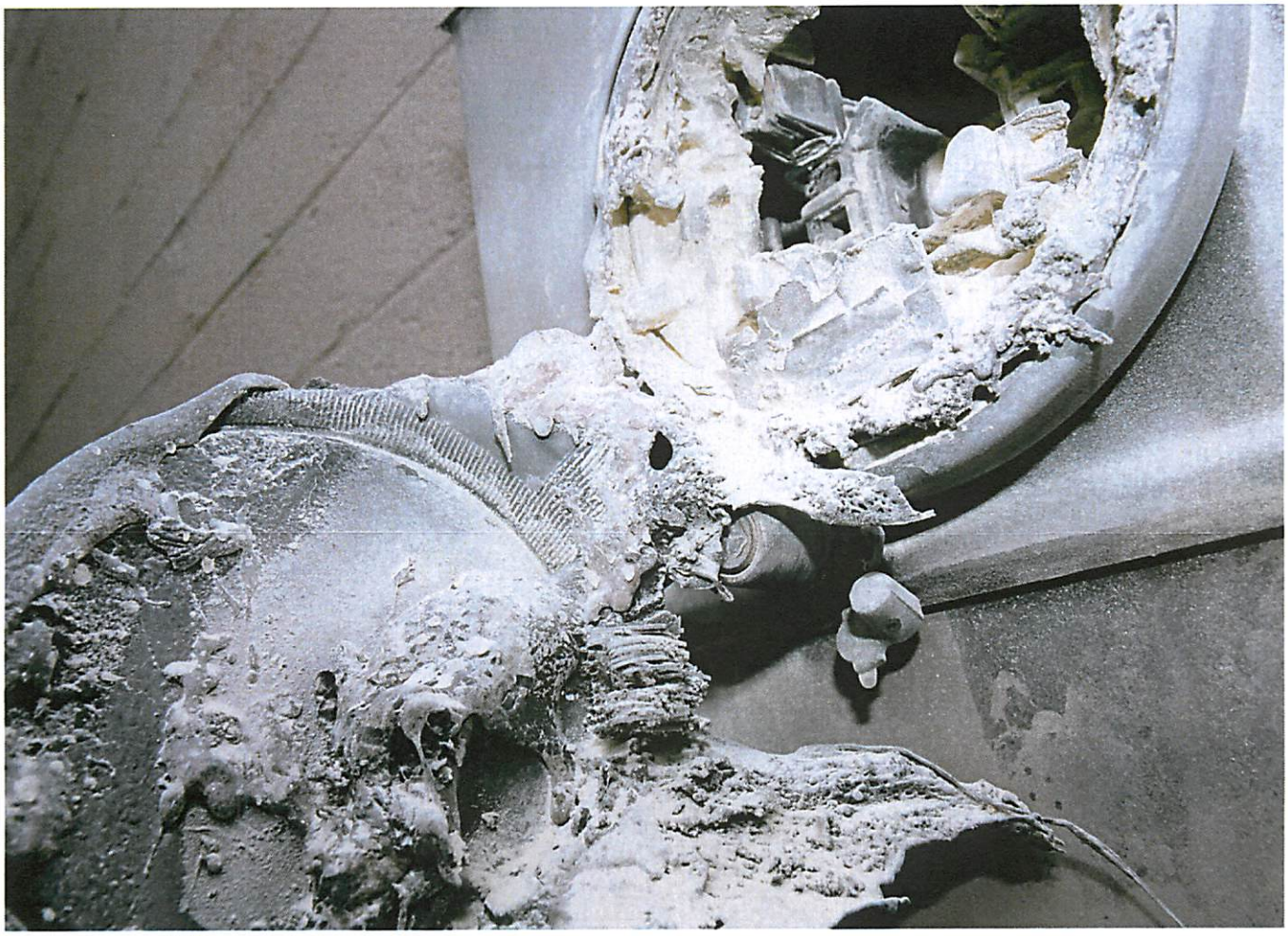


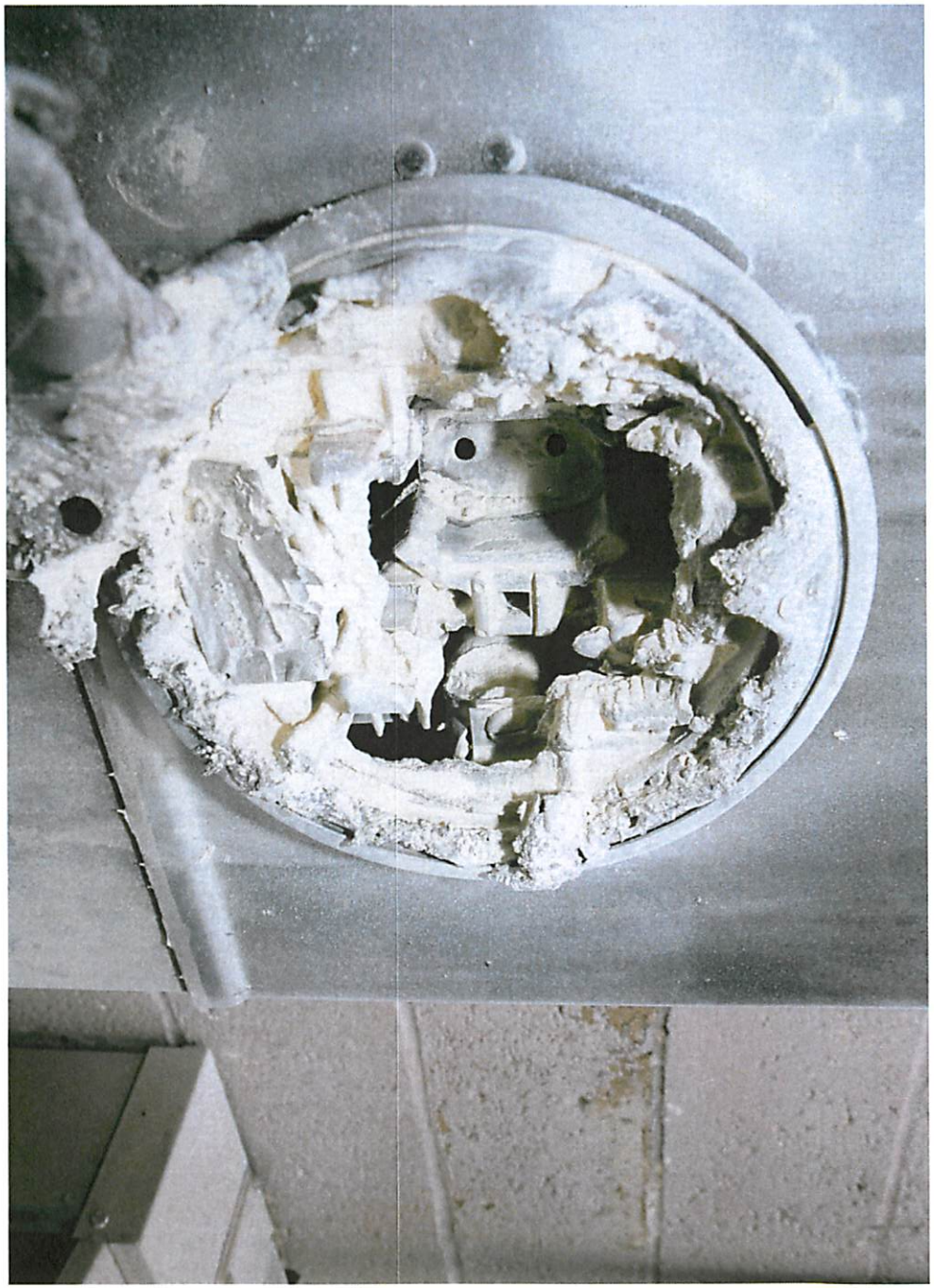

SIEMENS











ELECTRIC METER ALLEGATIONS
BY VARIOUS NEVADA FIRE DEPARTMENTS

ATTACHMENT O

Oracle Forensics Report Dated 8/27/2014, Prepared on Behalf of the Reno Fire Department for Fire Incidents on Rhinestone, Arletta, El Cap and Windswept in the Cities of Reno and Sparks

8/27/2014

City of Reno Fire Department
Attn: Captain Tray Palmer
palmert@reno.gov

RE: Sensus Meter Evaulations (Rhinestone, Arletta, El Cap, Wind Swept).
Oracle File: 20141350NV

Introduction:

The following report will detail the work performed to date on this assignment. All opinions are based on the information known to date. Oracle Forensics examined the evidence on 8/27/2014. Please note that three other meters (Arletta, El Cap, Wind Swept) were also examined on 8/27/14.

Data:

The evidence related to the Rhinestone matter consists of the service entrance panel and associated meter components. Figure 1 depicts the overall condition of the service entrance panel.

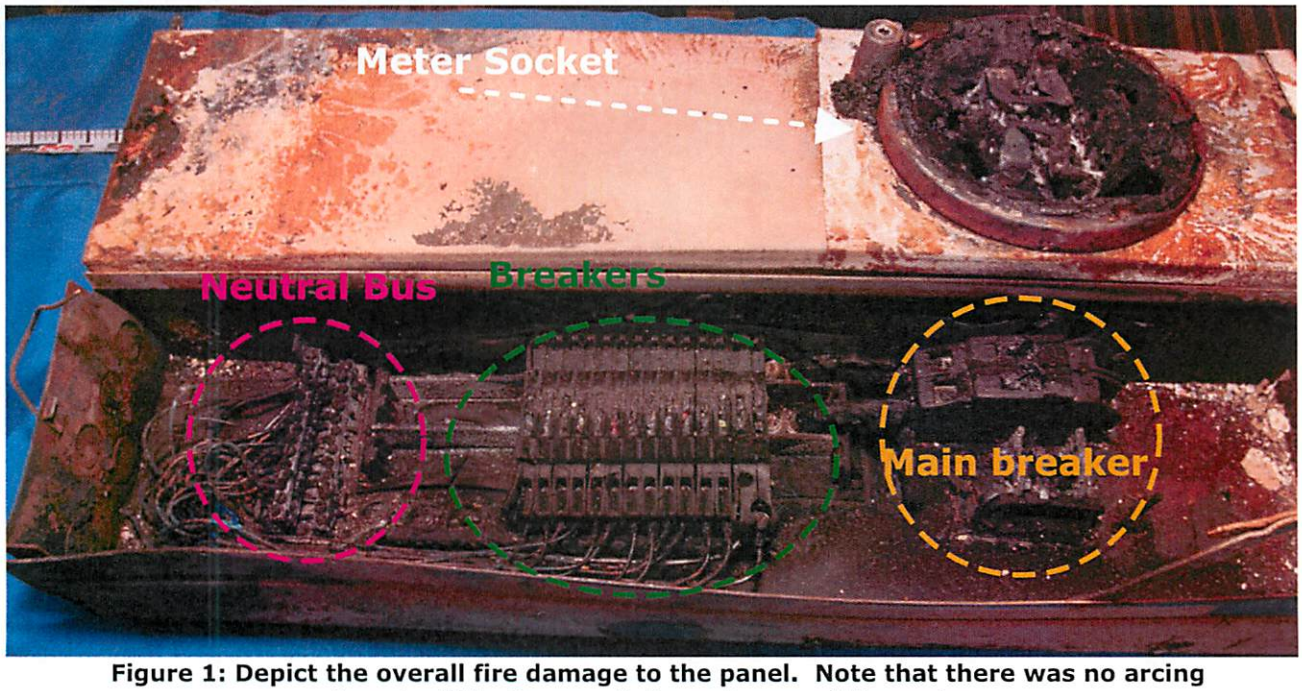
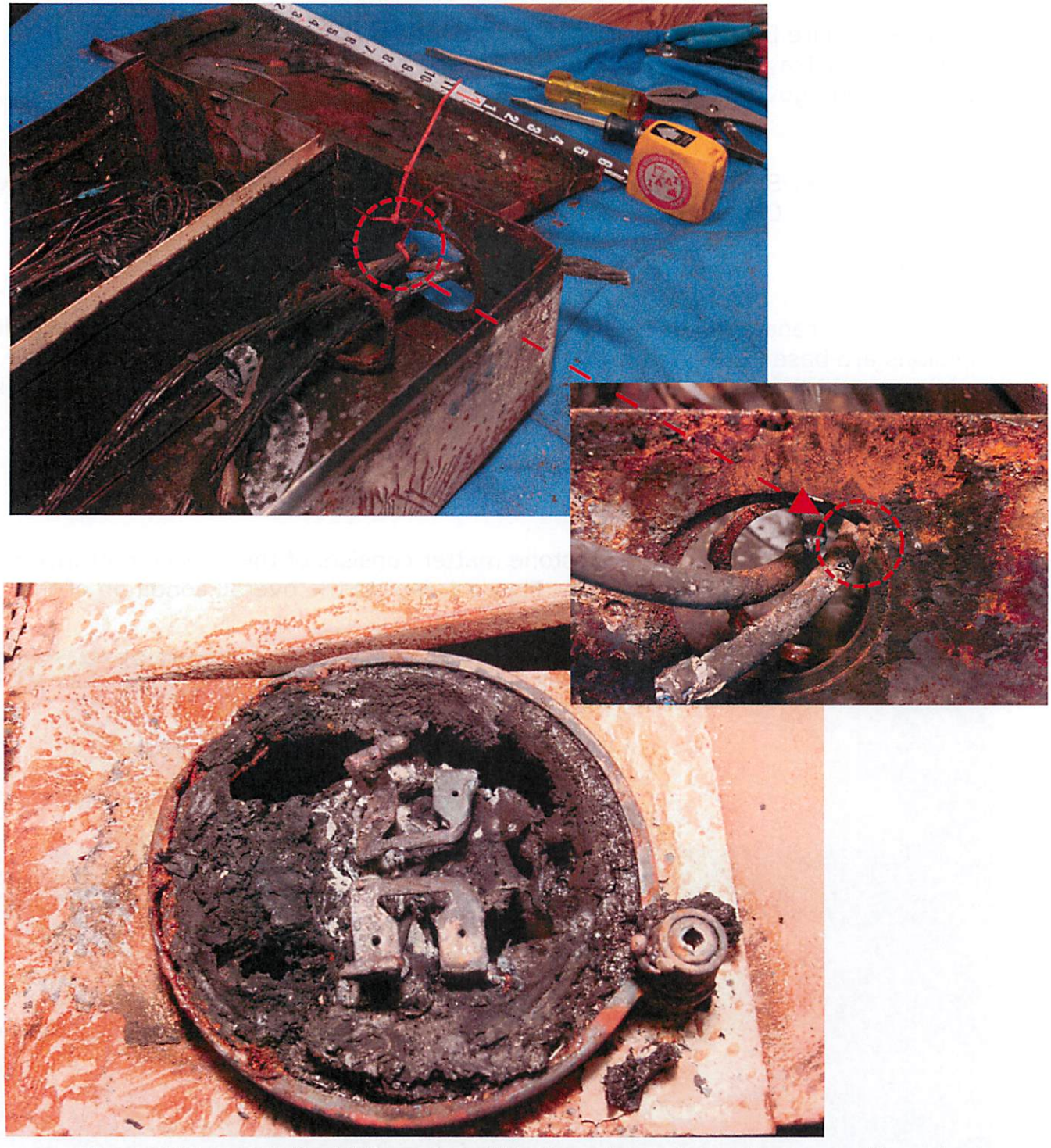


Figure 1: Depict the overall fire damage to the panel. Note that there was no arcing found within the panel, downstream of the meter.

Figures 2 through 4 further depict the overall fire damage to the service entrance section, arcing in the meter socket/meter remains and arcing to the service entrance conductor/panel at the bottom of the panel.



Figures 2 through 4: Depict the arcing within the meter socket enclosure, and the arcing to the bottom of the panel where the power entered the panel.

Figures 5 depicts the overall fire remains of the meter bus bars within the meter.

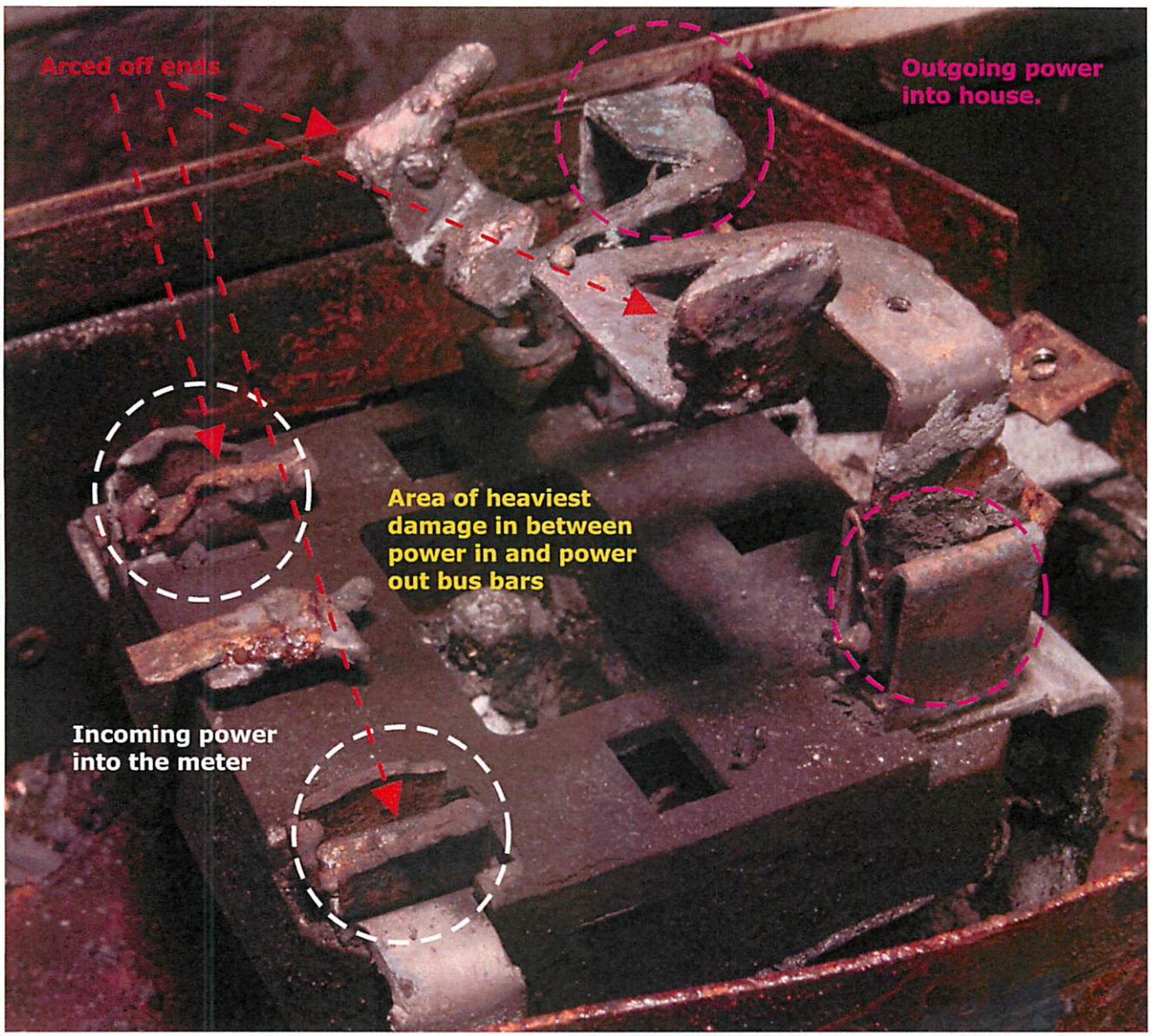
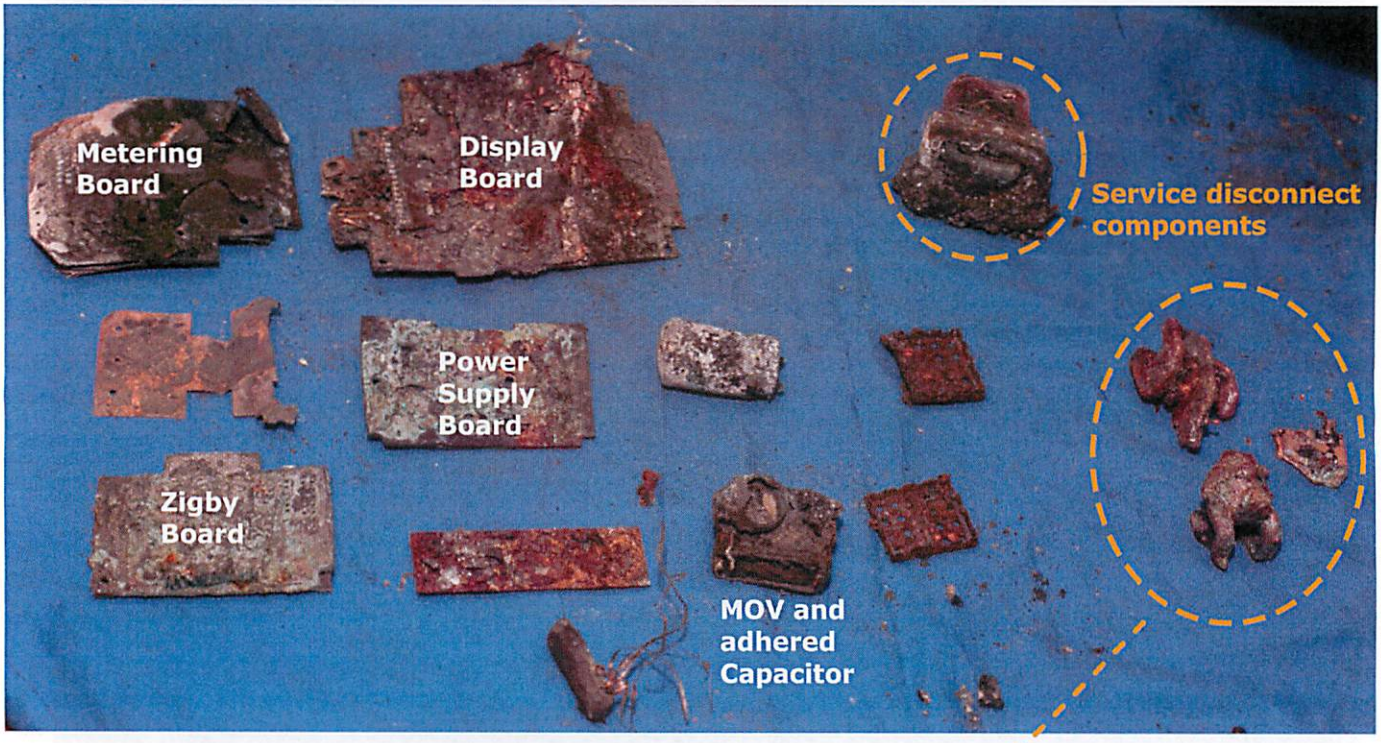
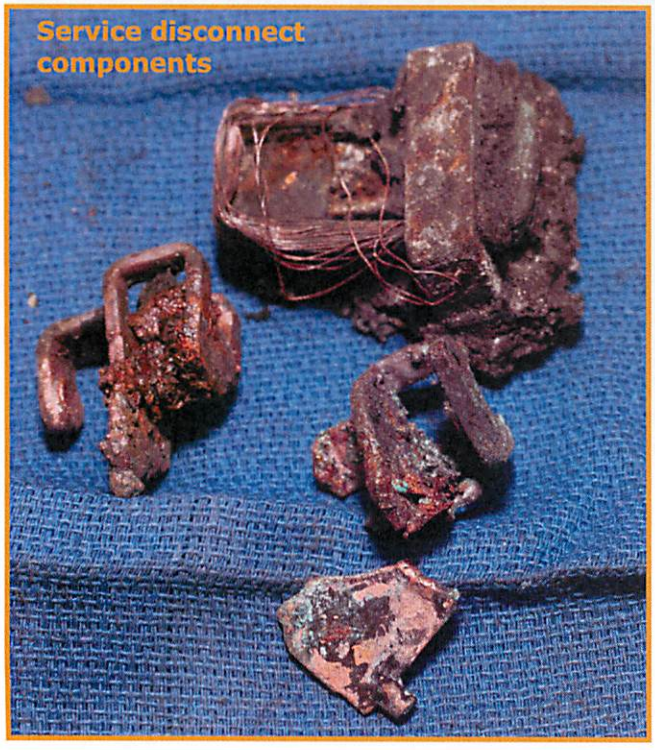


Figure 5: Depicts the overall fire damage to the meter remains within the socket enclosure. Please also note that the meter was adequately seeded into the meter socket enclosure.

Figures 6 and 7 depict the overall fire damage to the PCBs / electrical devices within the meter.





Figures 6 and 7: Depict the overall fire damage to the components associated with the meter.

Arletta Street incident

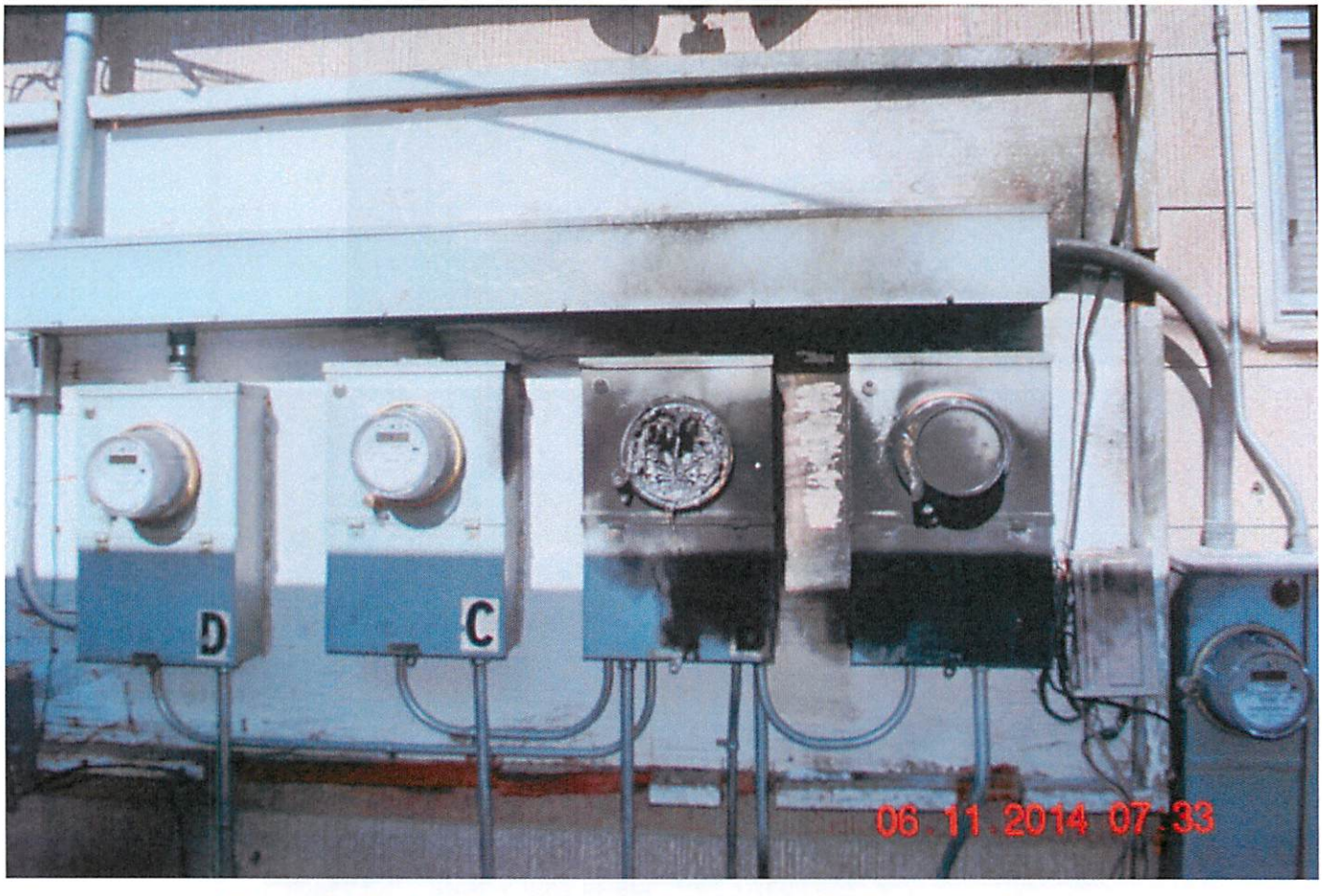


Figure 8: Depicts the localized fire damage to the meter in Apartment B.

The Arletta Street meter fire was also examined. The meter displayed similar characteristics to the Rhinestone meter incident with one main exception -- the majority of the bus bars were melted away/missing from the Arletta incident meter. Figures 9 and 10 depict the overall fire damage to the meter and associated electrical panel.

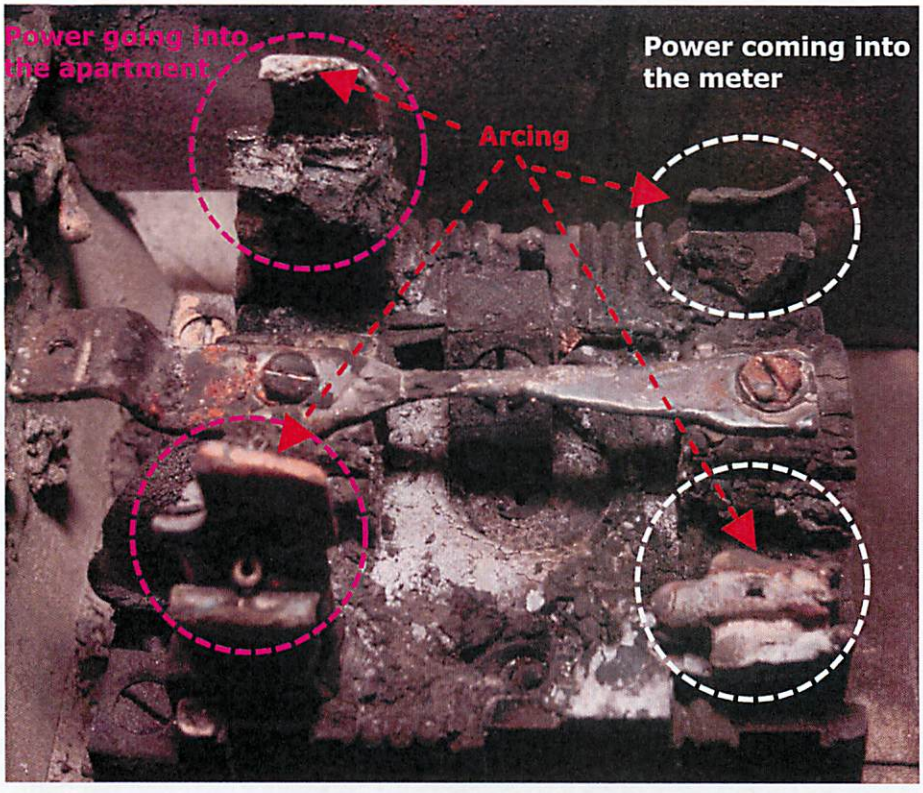


Figure 9: Depicts the meter remains within the meter socket enclosure.

Figure 10: Depicts the circuit breaker panel. Note that none of the breakers are in the tripped position.

The meter associated with the Arletta Street meter fire was fully seeded into the electrical socket. Additionally, the electrical disconnect portion of the meter displayed extreme melting. See Figures 11 and 12.

Figure 11 depicts the blades associated with the meter which are fully seeded into the socket enclosure.

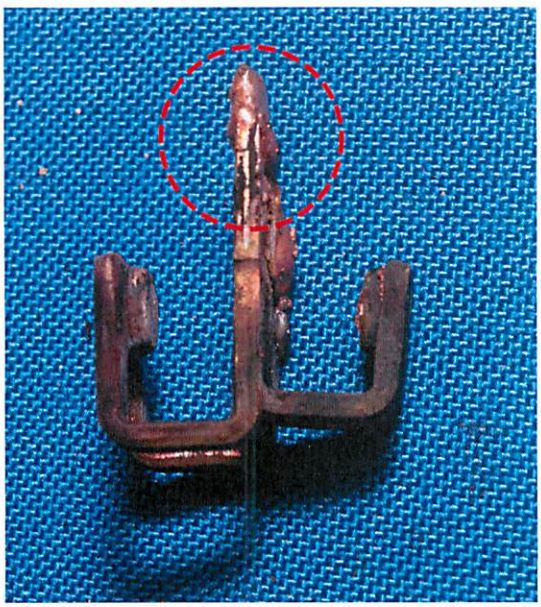


Figure 12 depicts the electrical bus bar associated with the electronic service disconnect. Note the heavy melting to the bus bar.

Analysis of Data:

1. In each case ---the Rhinestone matter, the Arletta matter, the El Cap matter (Appendix A), and the Wind Swept matter (Appendix B) --- the service disconnect displayed the most consistent electrical damage within the electrical Sensus smart meter (See Figures 6, 7, and 12). In each case, the bus bars associated with the electronic service disconnect displayed extreme melting.

2. Additionally, in each case (Rhinestrone, Arletta, El Cap, and Wind Swept), the load side electrical blades were intact, while the majority of the fire damage was around the electronic disconnect/line side blades. See Figures 5 and 9.

3. The fire and electrical damage to each of the printed circuit boards, MOVs, and capacitors varied extensively meter to meter. Therefore, nothing conclusive was learned from the examination of each of these devices.

4. All of the Sensus meters displayed blades that were fully inserted into the meter socket enclosure, eliminating "hot plugging" as a potential cause of the fire(s).

Conclusion:

Based on the physical evidence in the Rhinestone matter, the Sensus meter cannot be eliminated as the ignition source. The meter displays extensive fire damage within the meter socket enclosure. Additionally, the electronic components associated with the meter display heavy fire damage and arcing. There was also a lack arcing found downstream of the meter. This data tends to suggest the meter (Rhinestone) may have failed. Conversely, all of the fire damage and arcing within the meter / meter socket enclosure could be explained if an approaching fire ignited the plastics associated with the meter very early in the fire. Extensive analysis of the fire scene and electrical system associated with the condominium (to look for arcing downstream of the meter) would be needed to determine if the meter failed to any probability.

By contrast, it is probable the Arletta meter did fail, resulting in the ignition of the fire. The meter is the only device that displayed fire damage. See Figure 8. Additionally, arcing was found in abundance within the meter and meter socket enclosure, suggesting that the meter failed in some fashion.

The remaining examined meters (Appendices A and B) also displayed common characteristics, suggesting that they may have failed. Given the common data amongst each of the meters (#1, #2, and #4 in the Analysis of Data section above), a common failure mode cannot be eliminated and needs to be seriously considered regarding the Sensus smart meters.

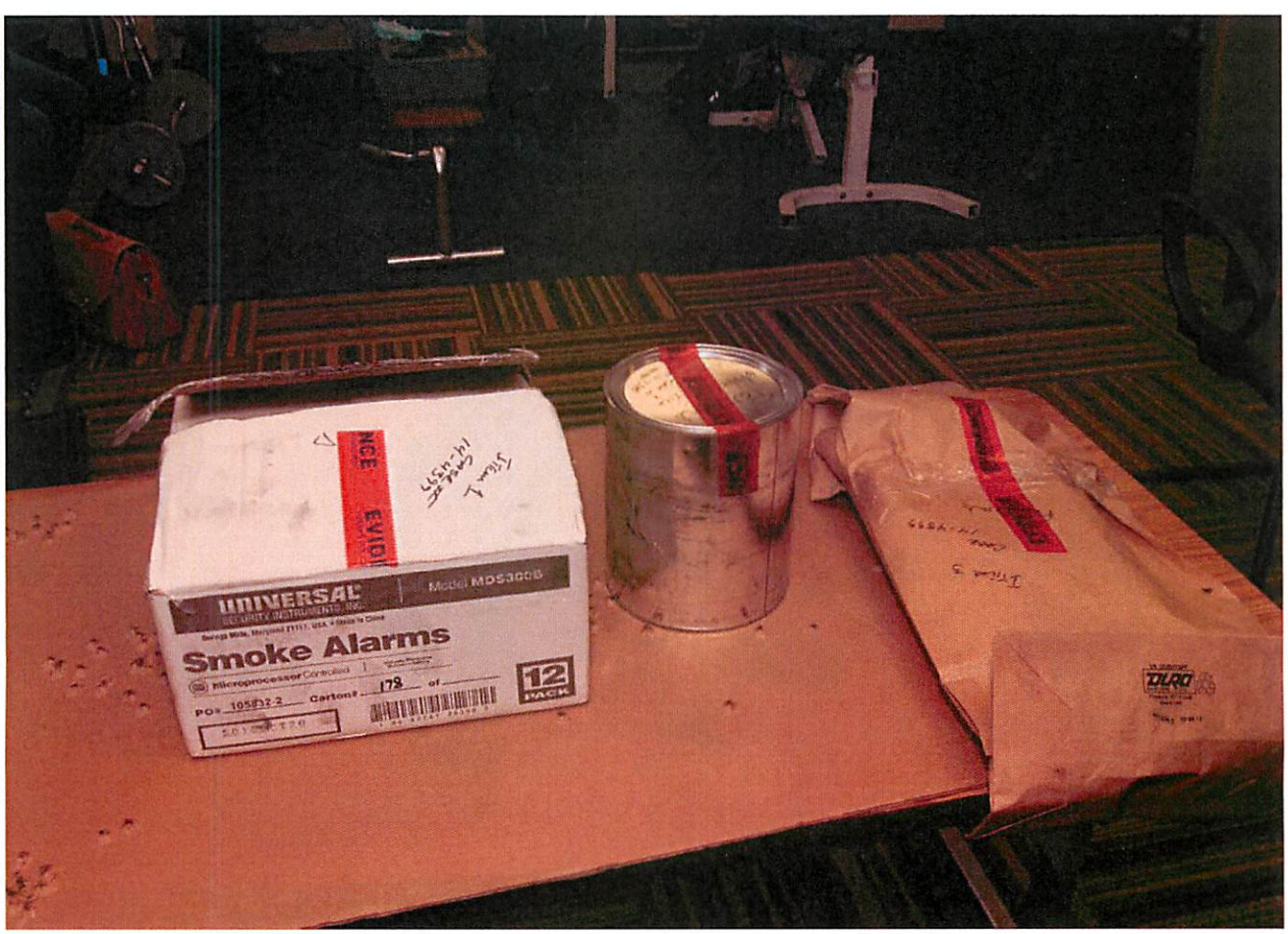
Please let me know if you have any questions.

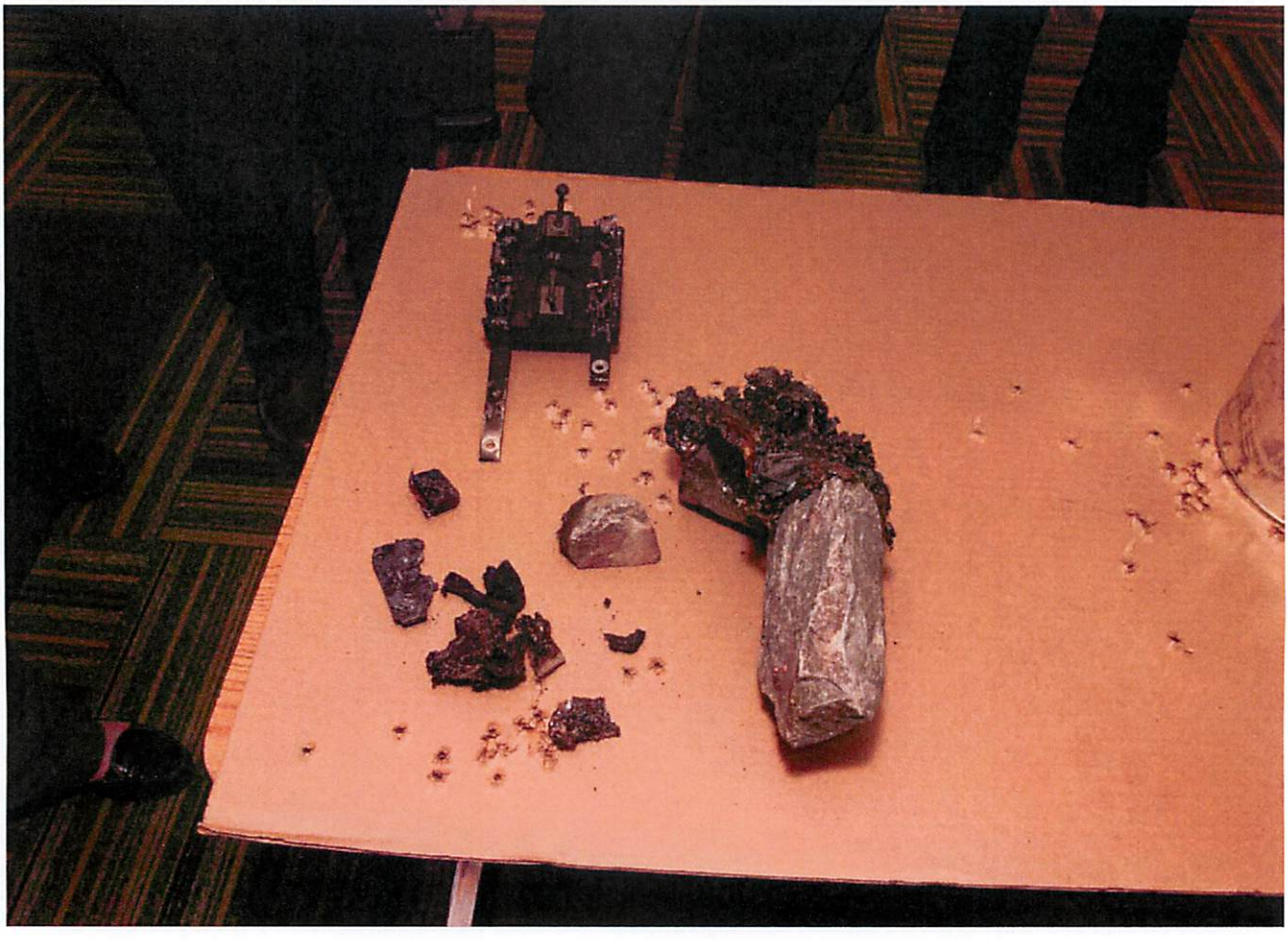
Sincerely,

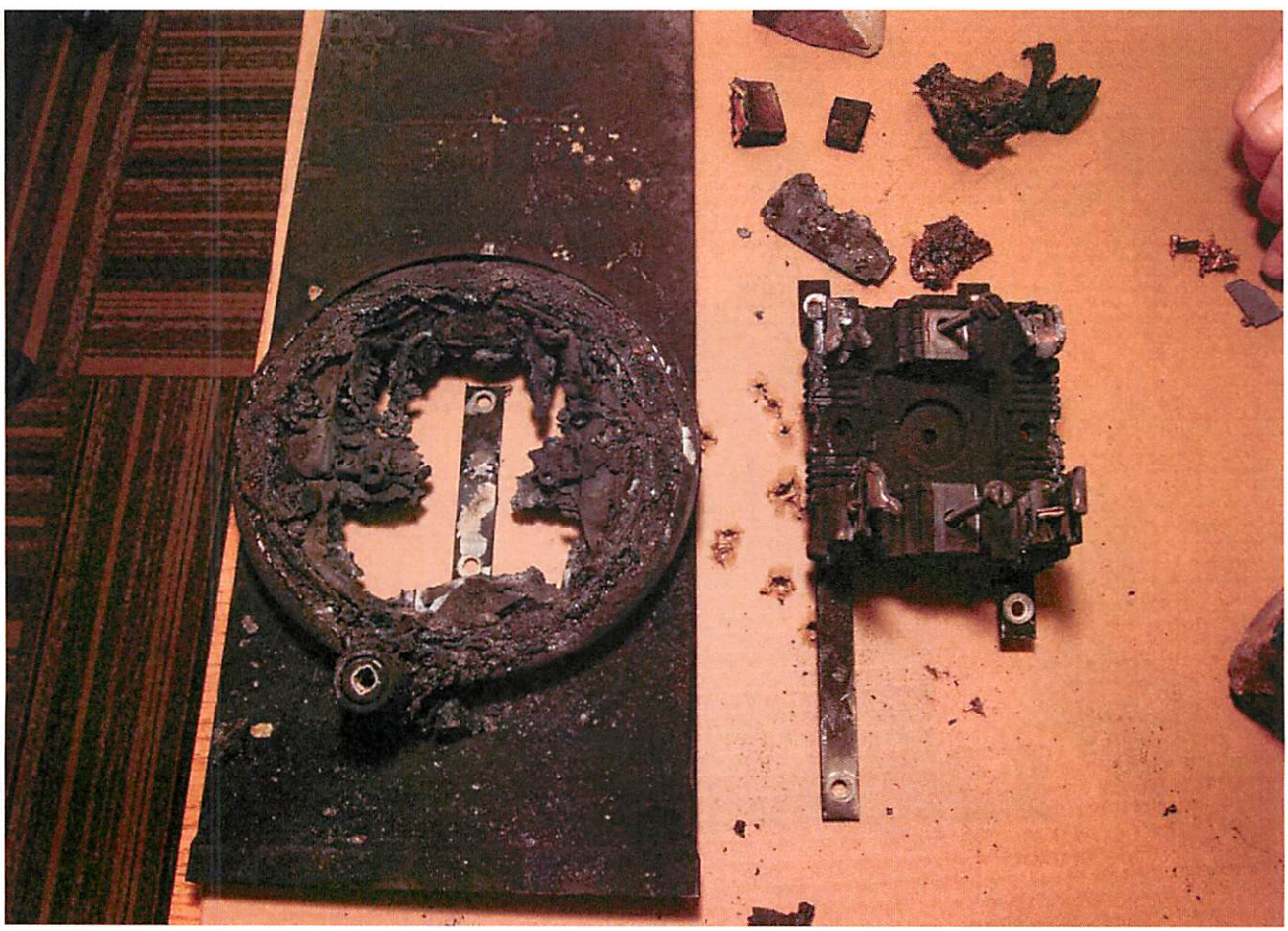
Andrew Thoresen, PE

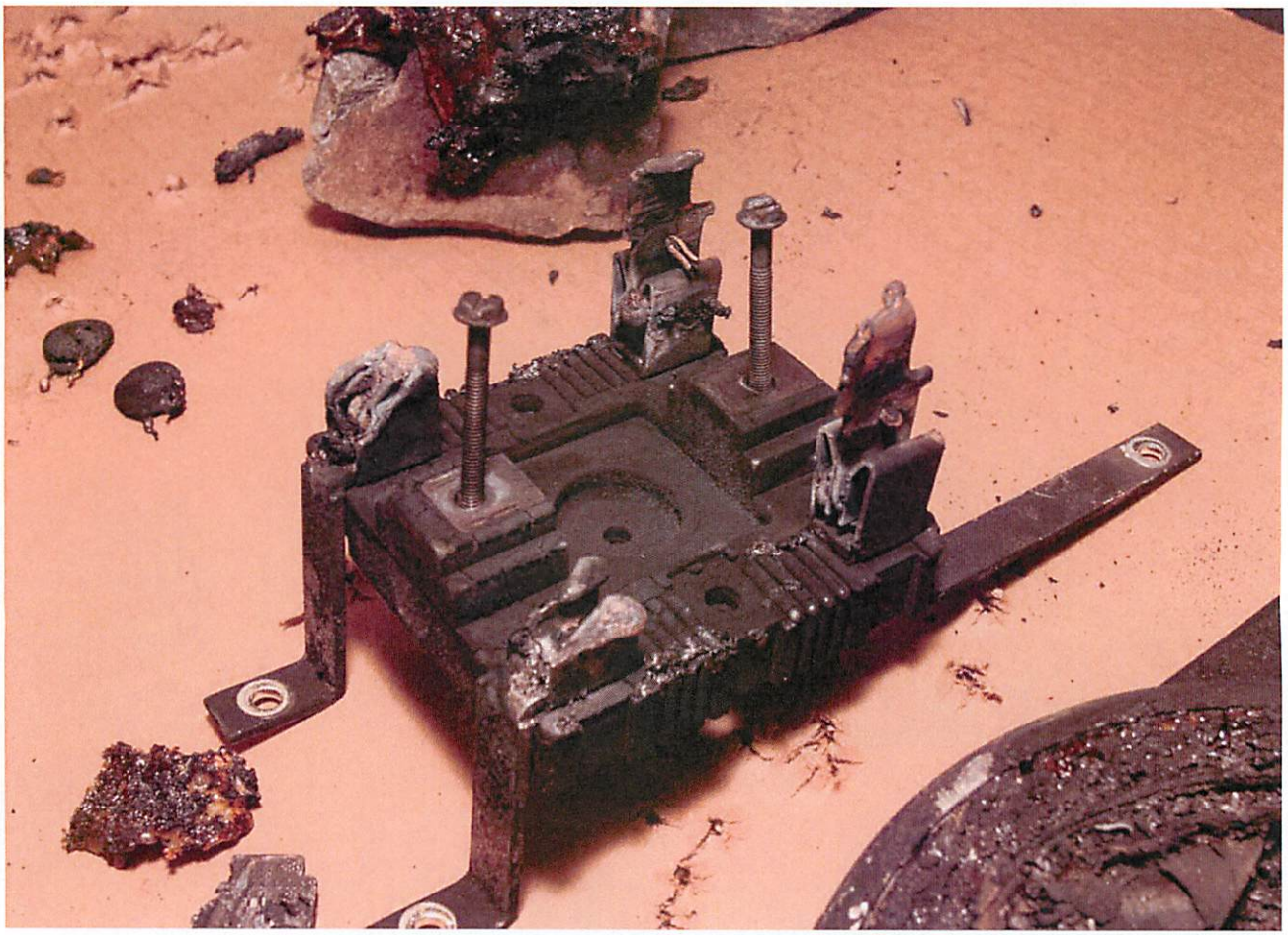
Appendix A
El Cap Photographs

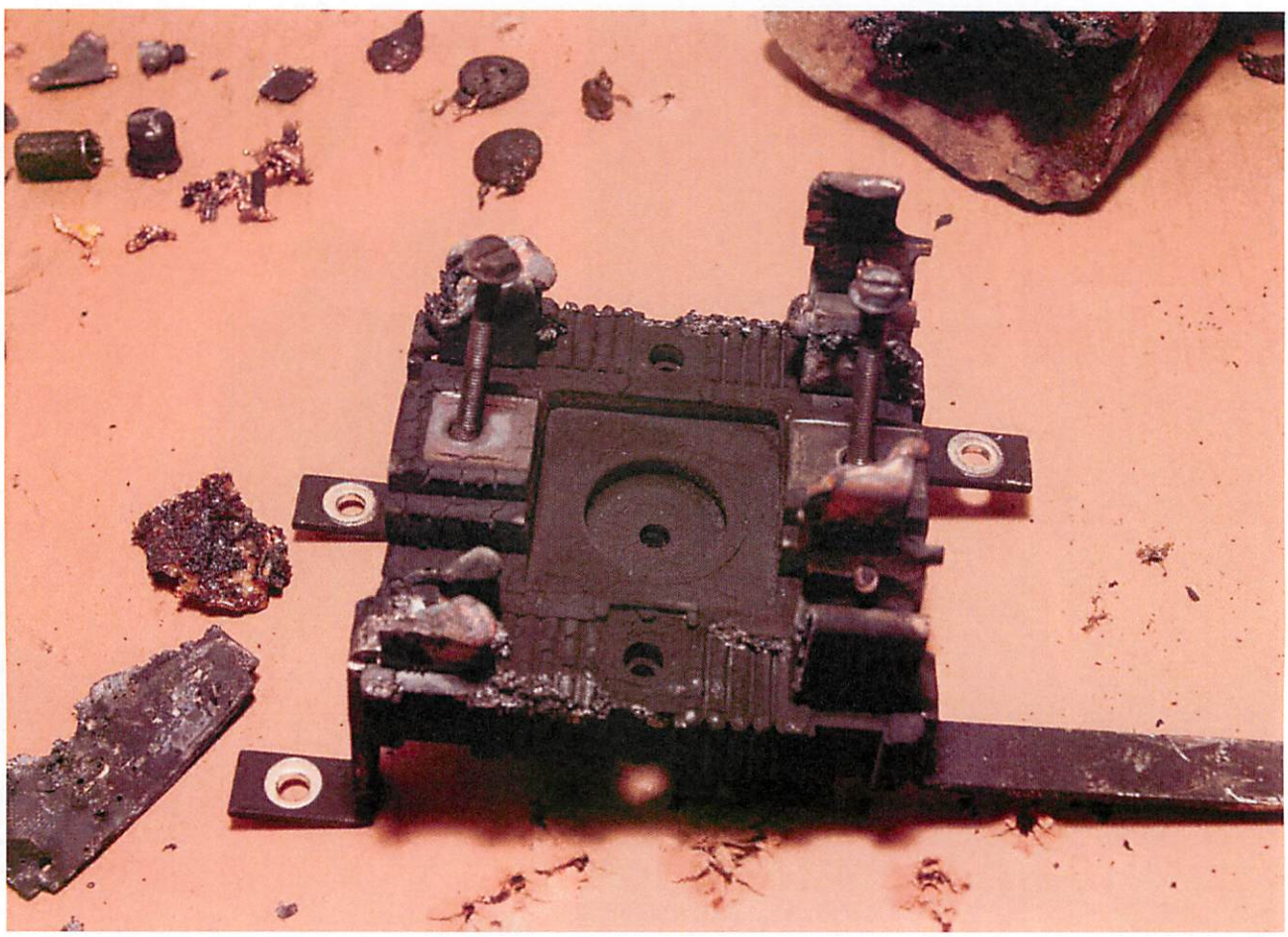
UNIVERSAL
Model MDS300B
Smoke Alarms
Microprocessor Controlled
12 PACK

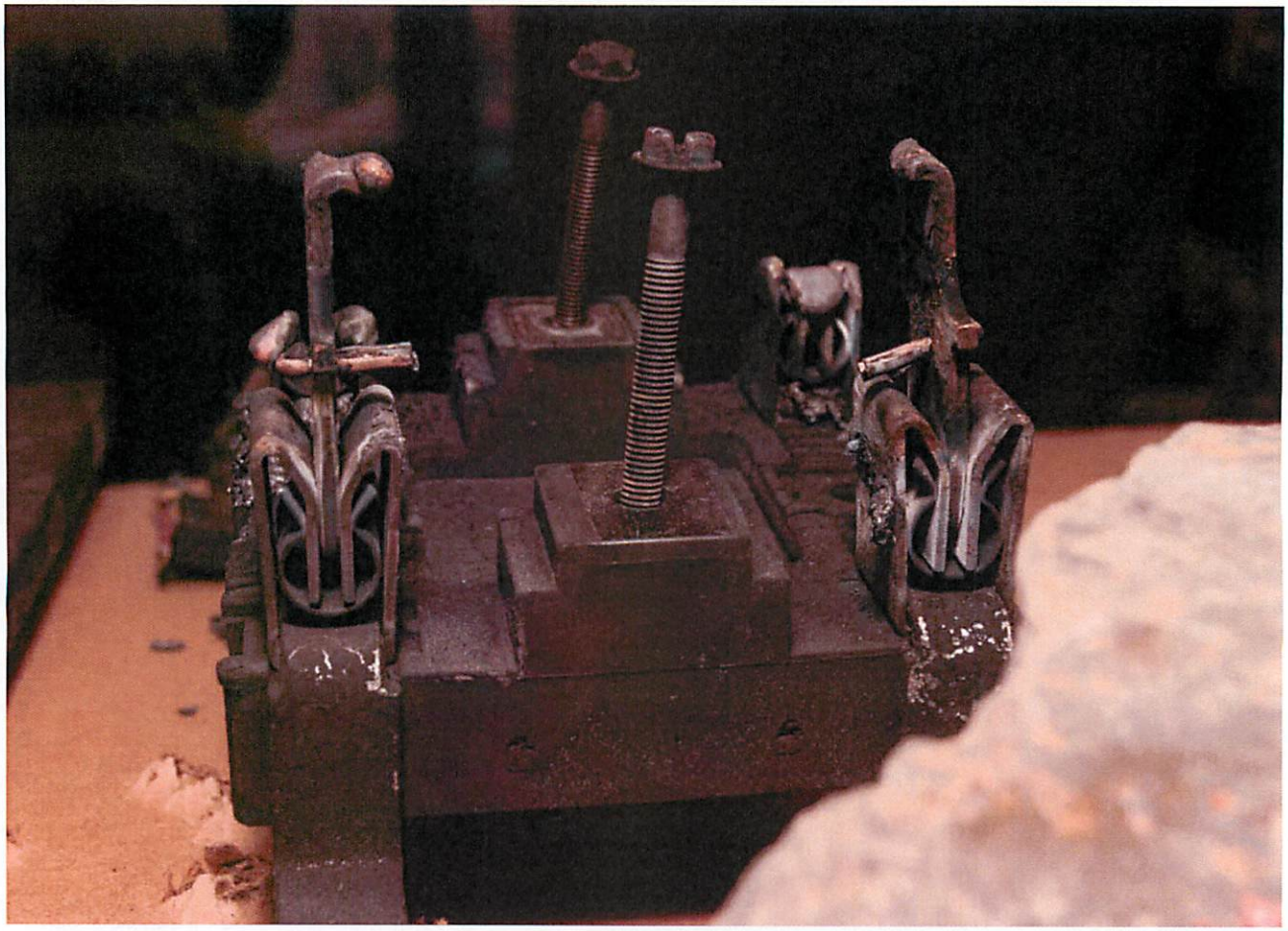

UNIVERSAL
Model MDS300B
Smoke Alarms
Microprocessor Controlled
12 PACK

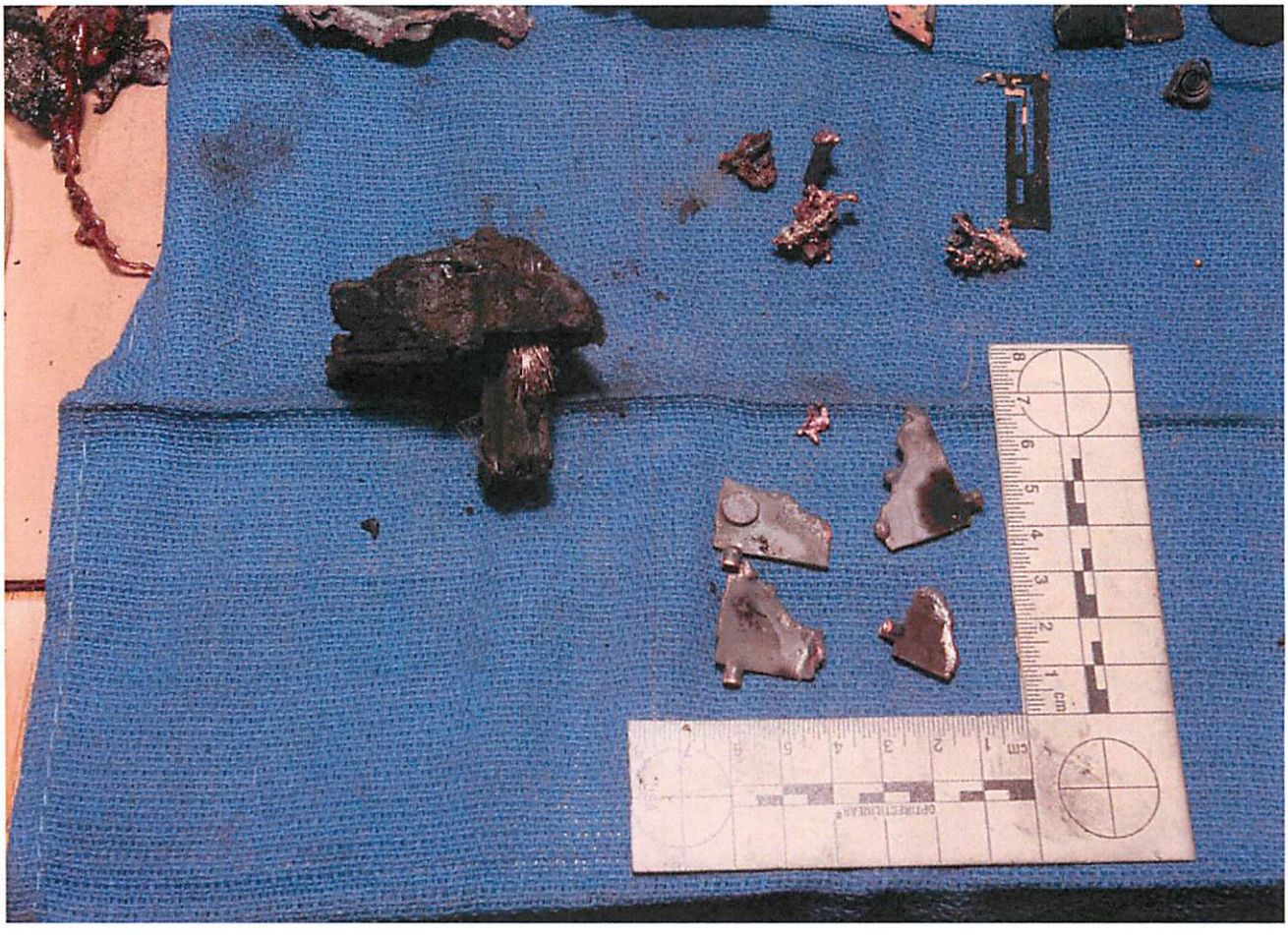


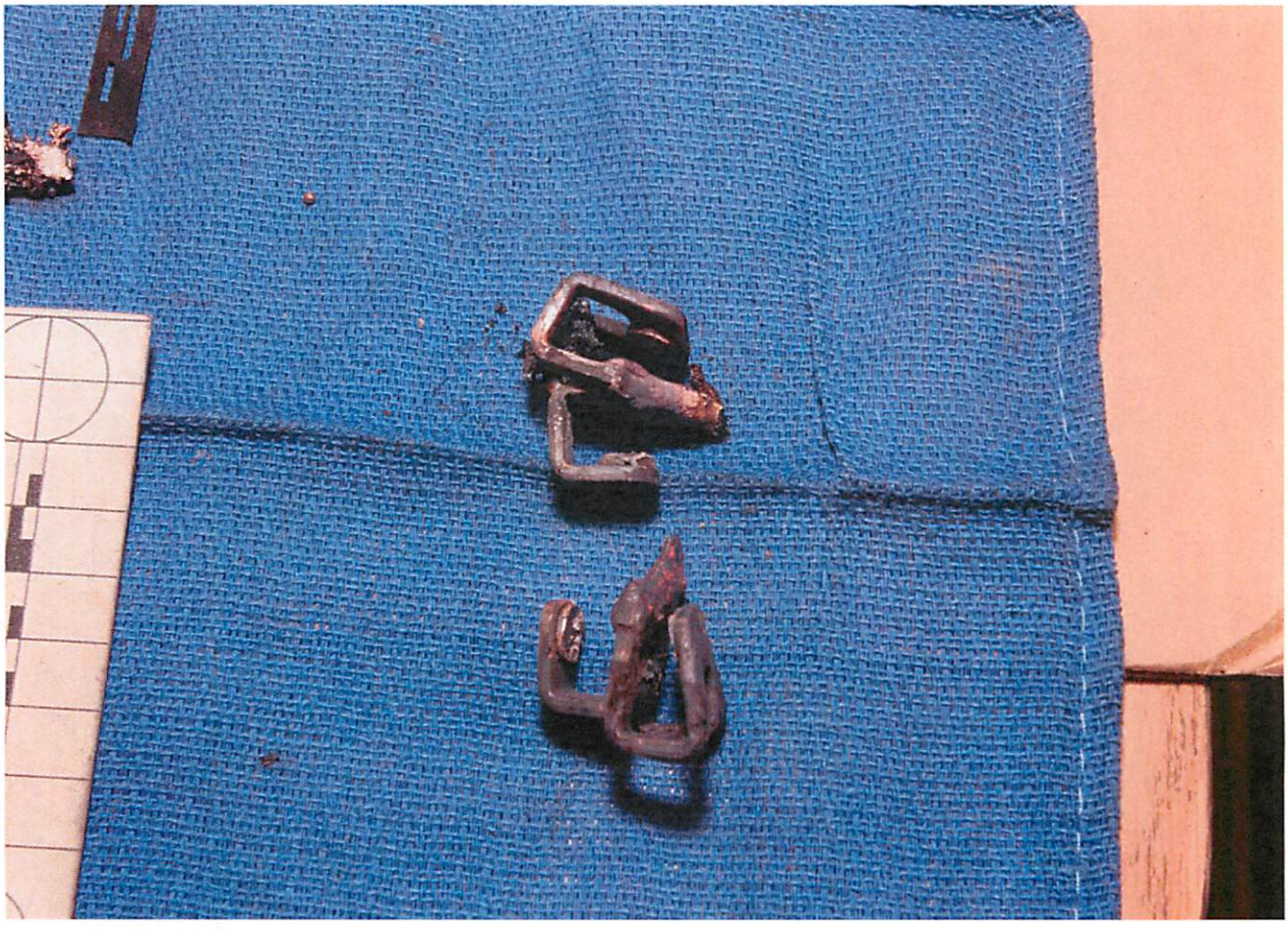




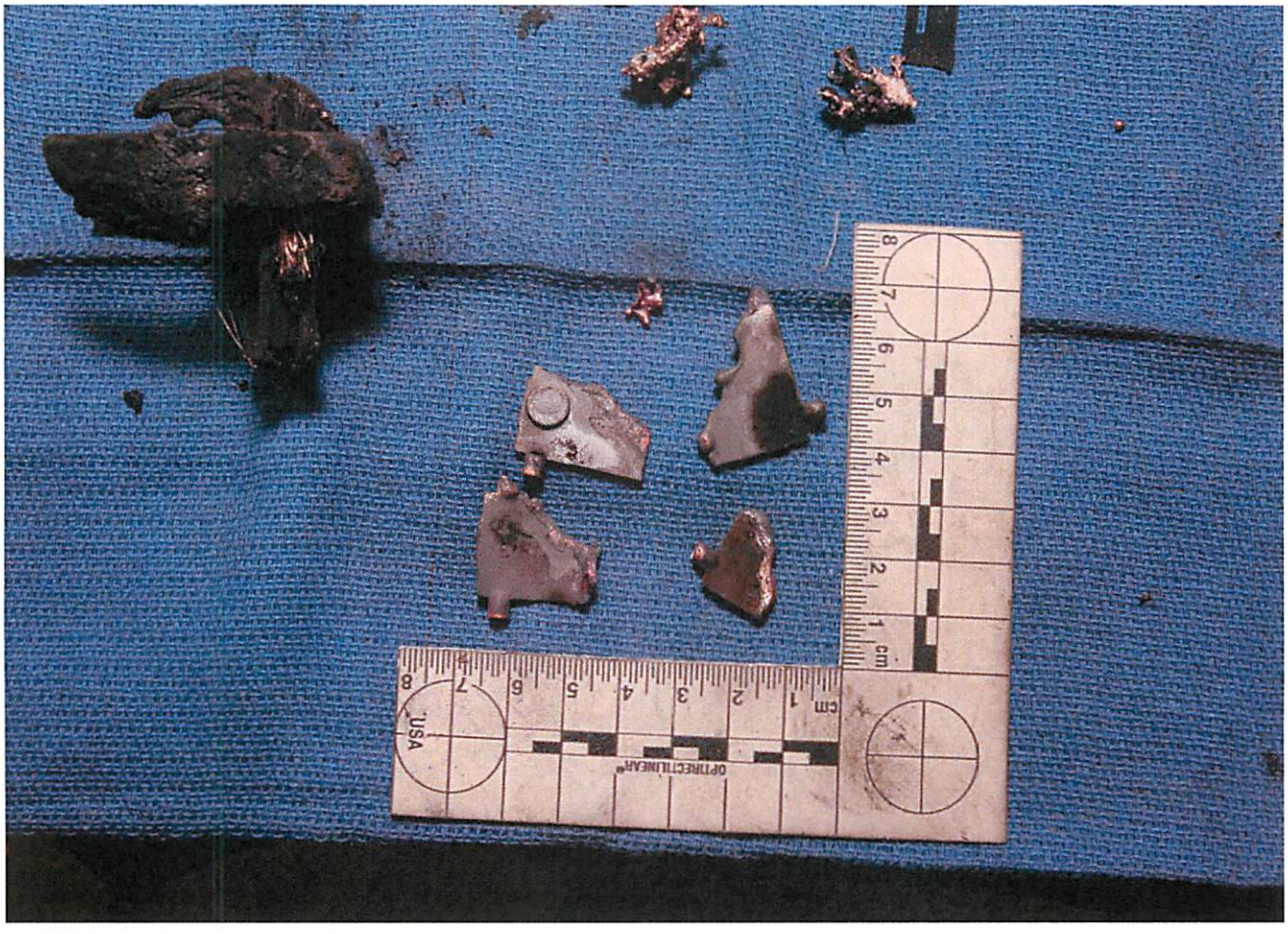


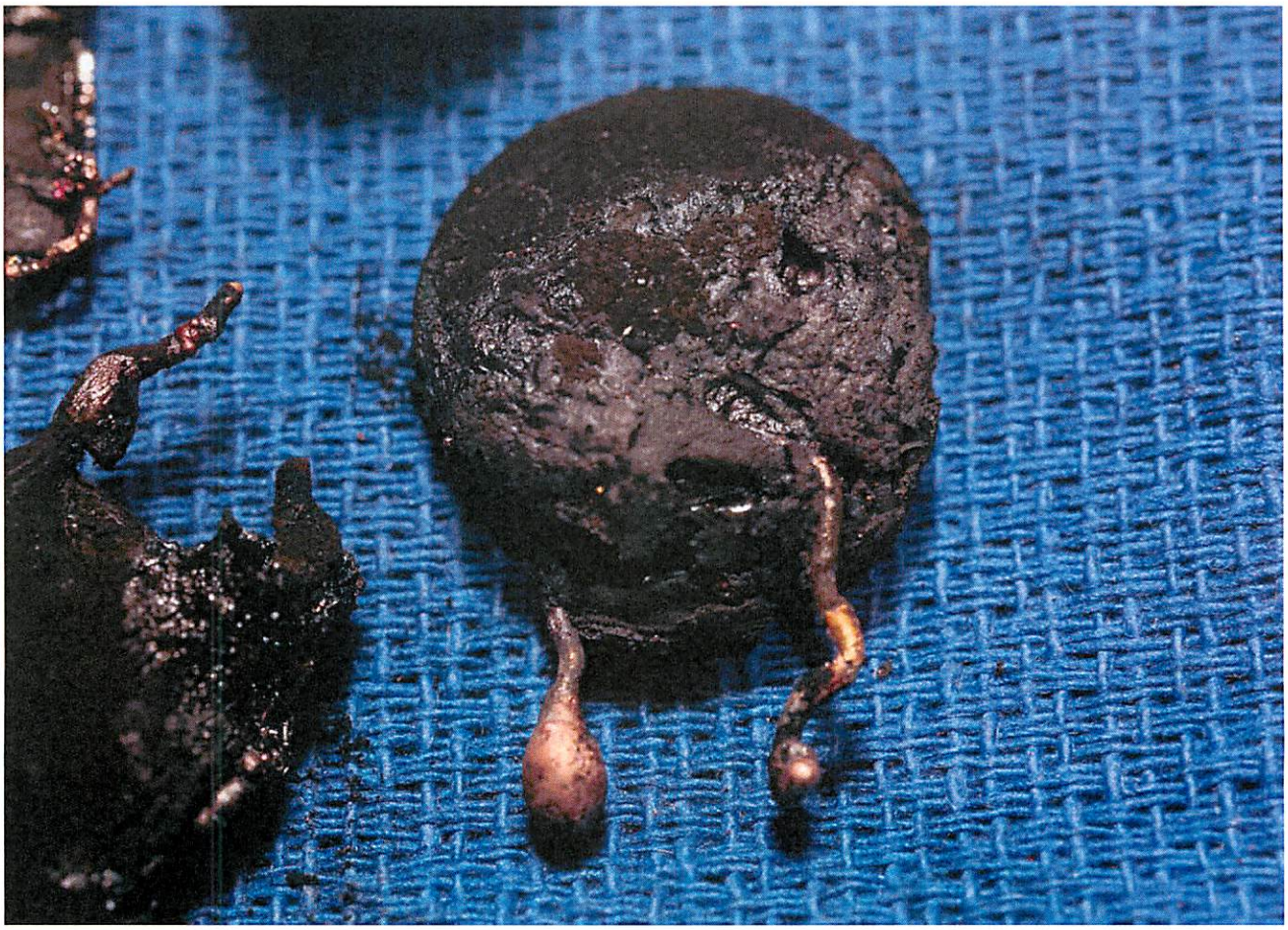


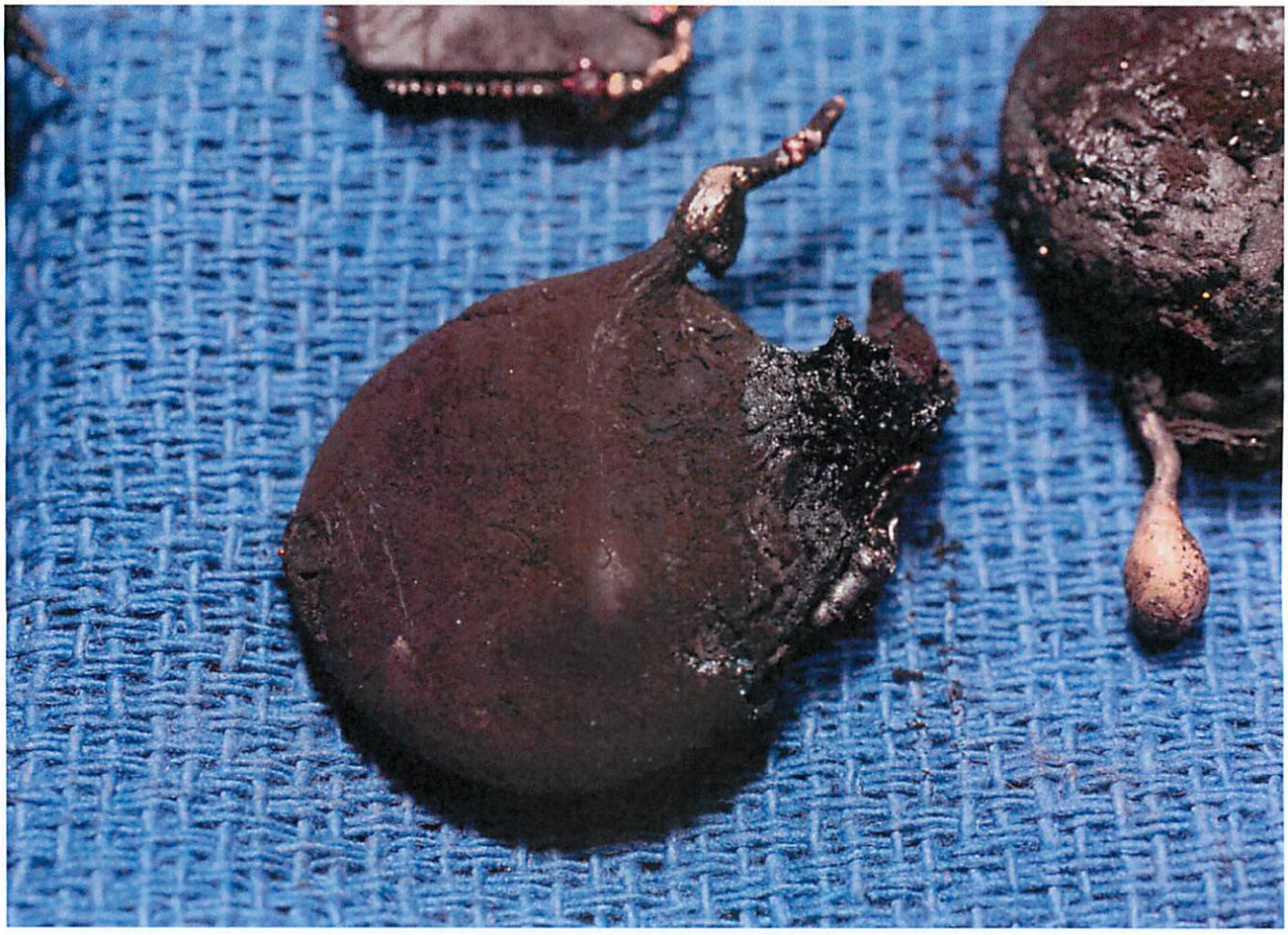




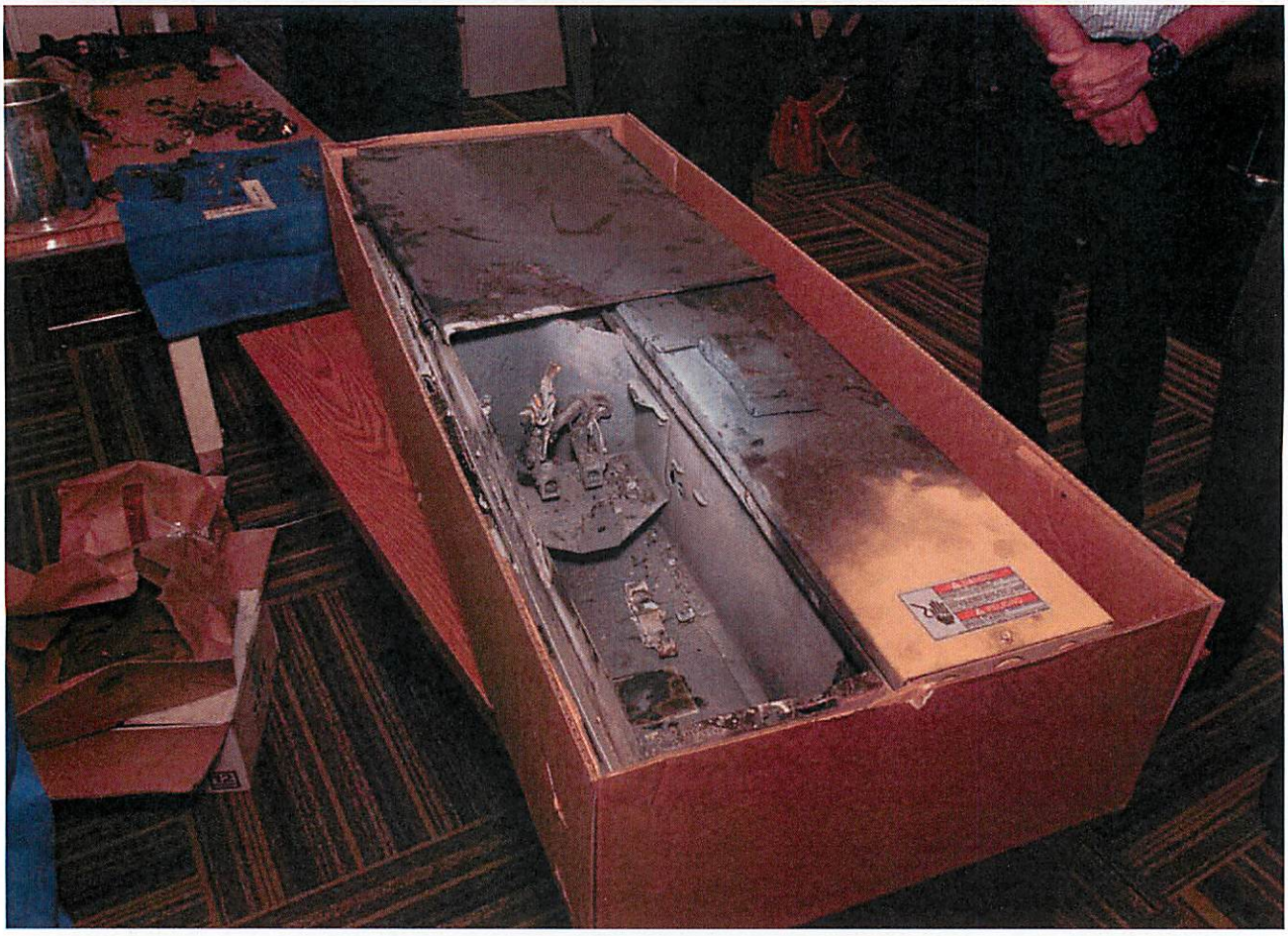
EVIDENCE
USA
OPTIRECTILINEAR
cm


OPTIMECTLINEAR
USA
cm

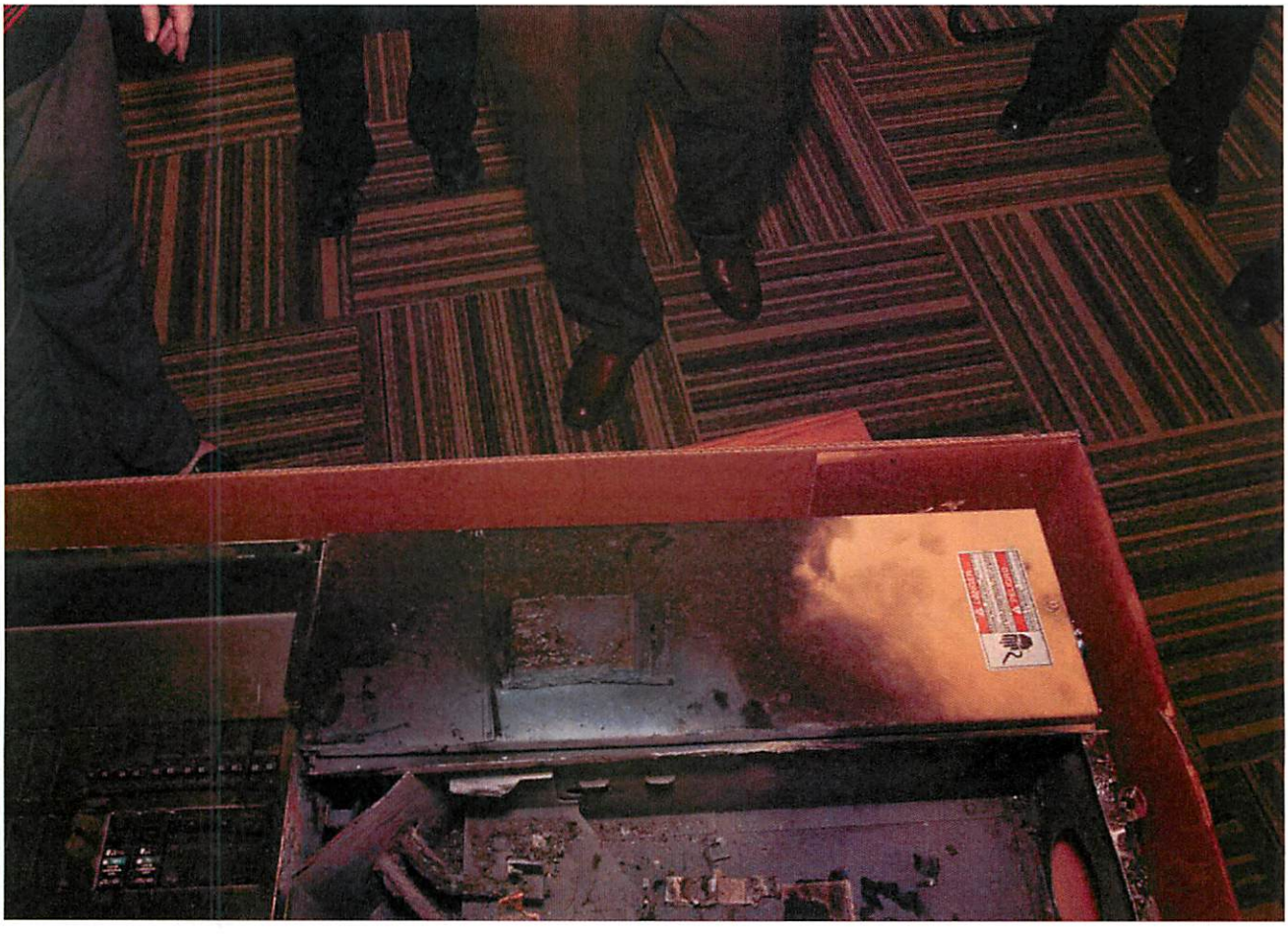


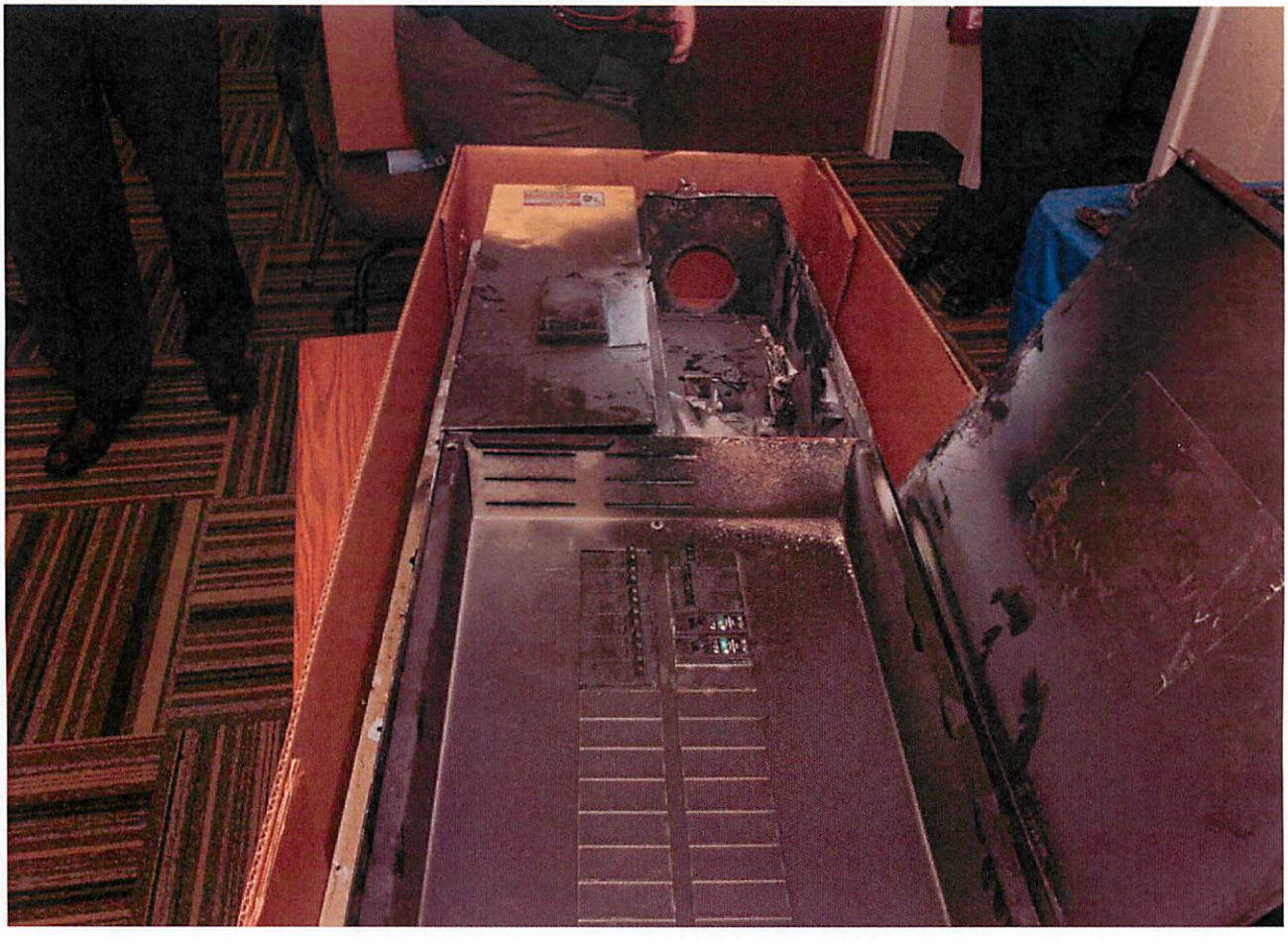


Appendix B
Wind Swept Photographs

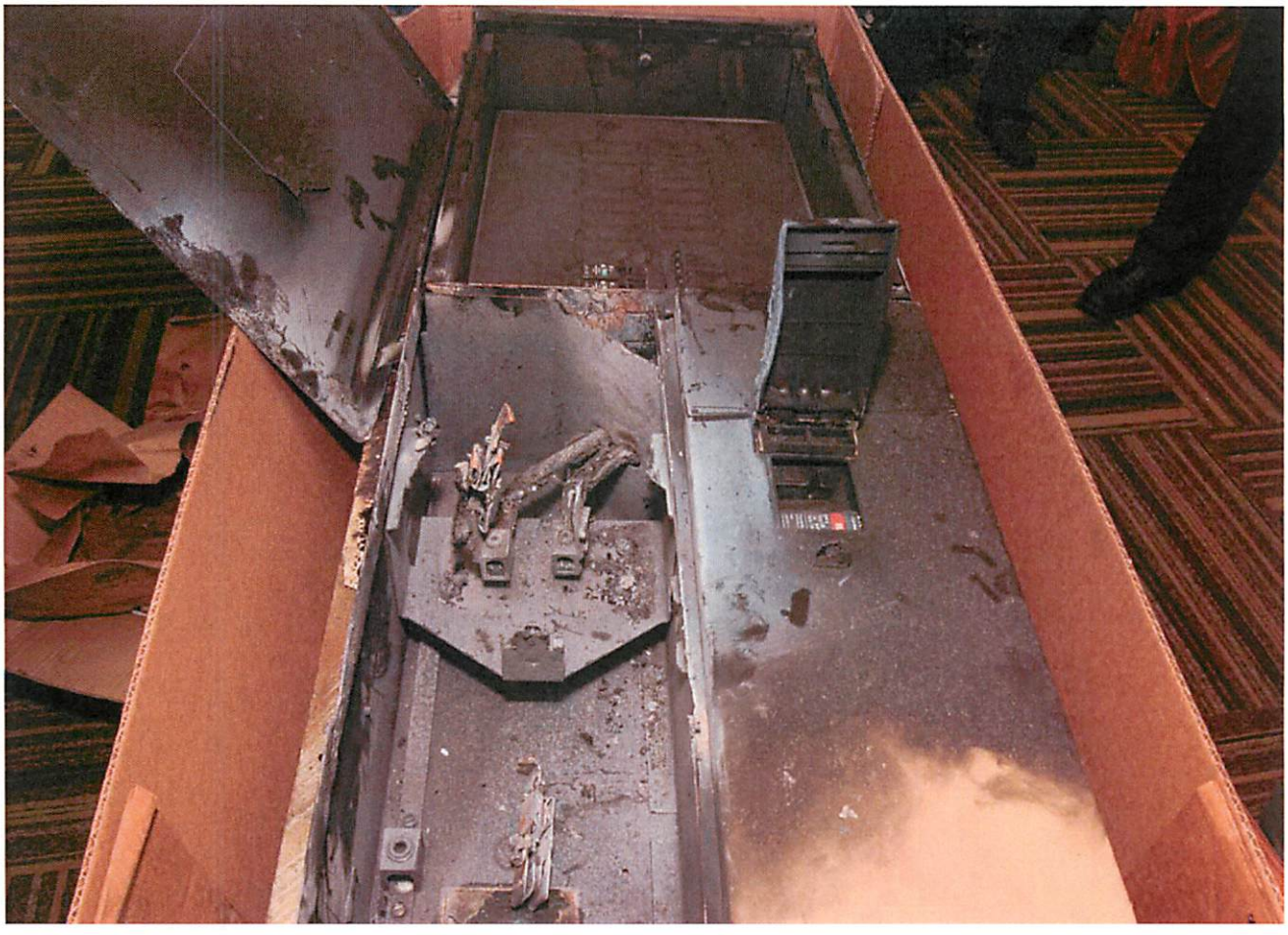


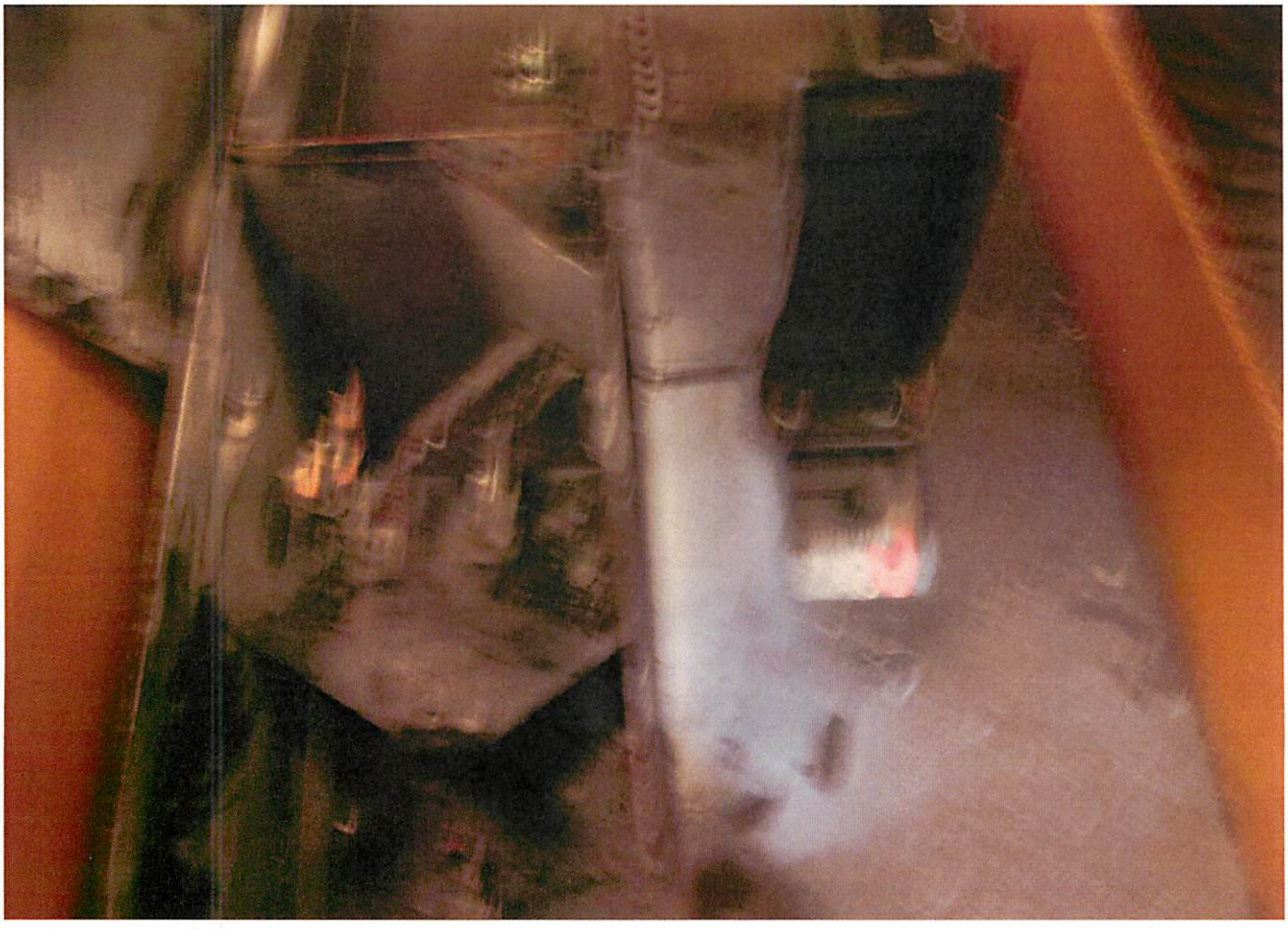
DANGER
PELIGRO

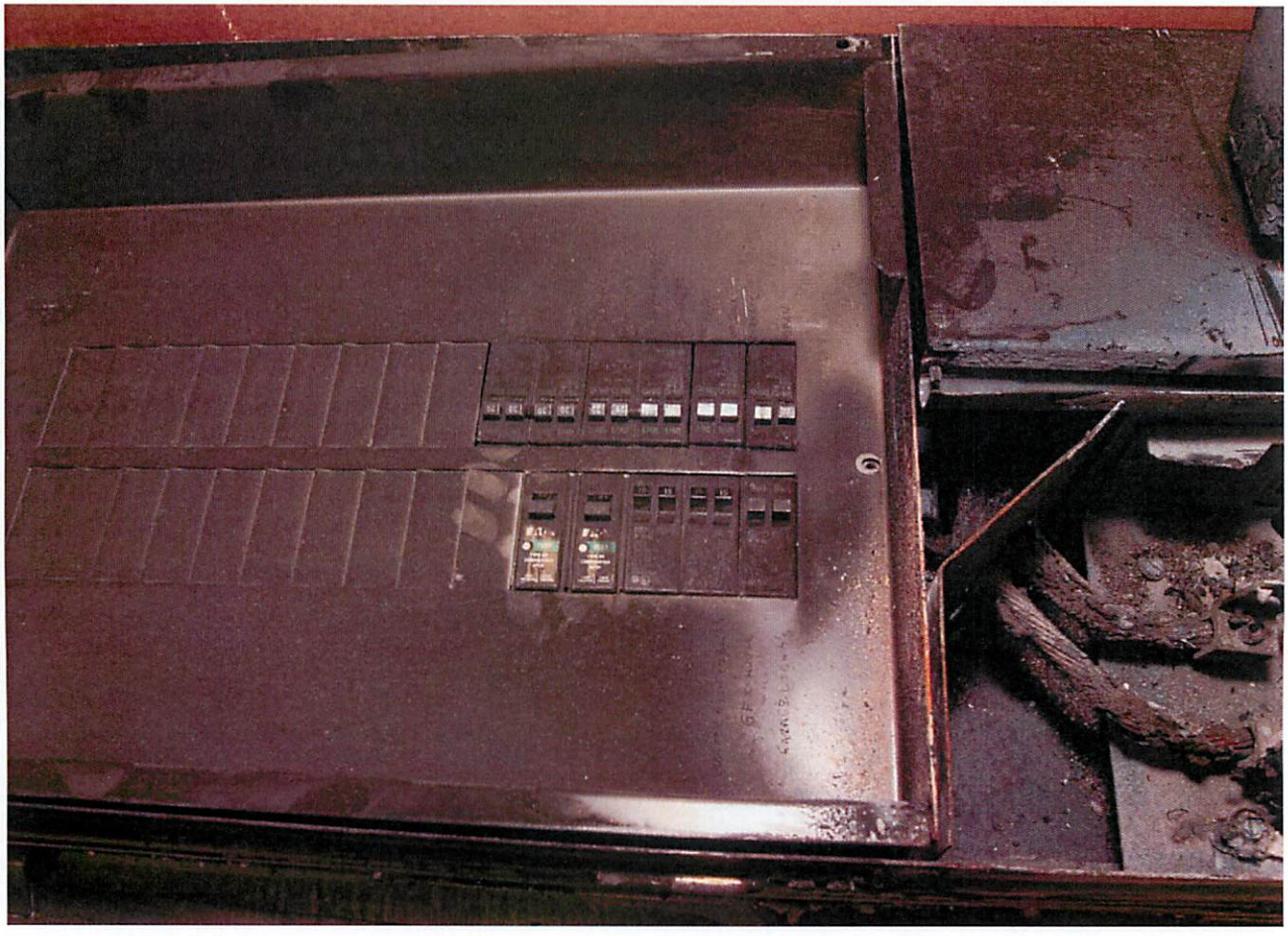


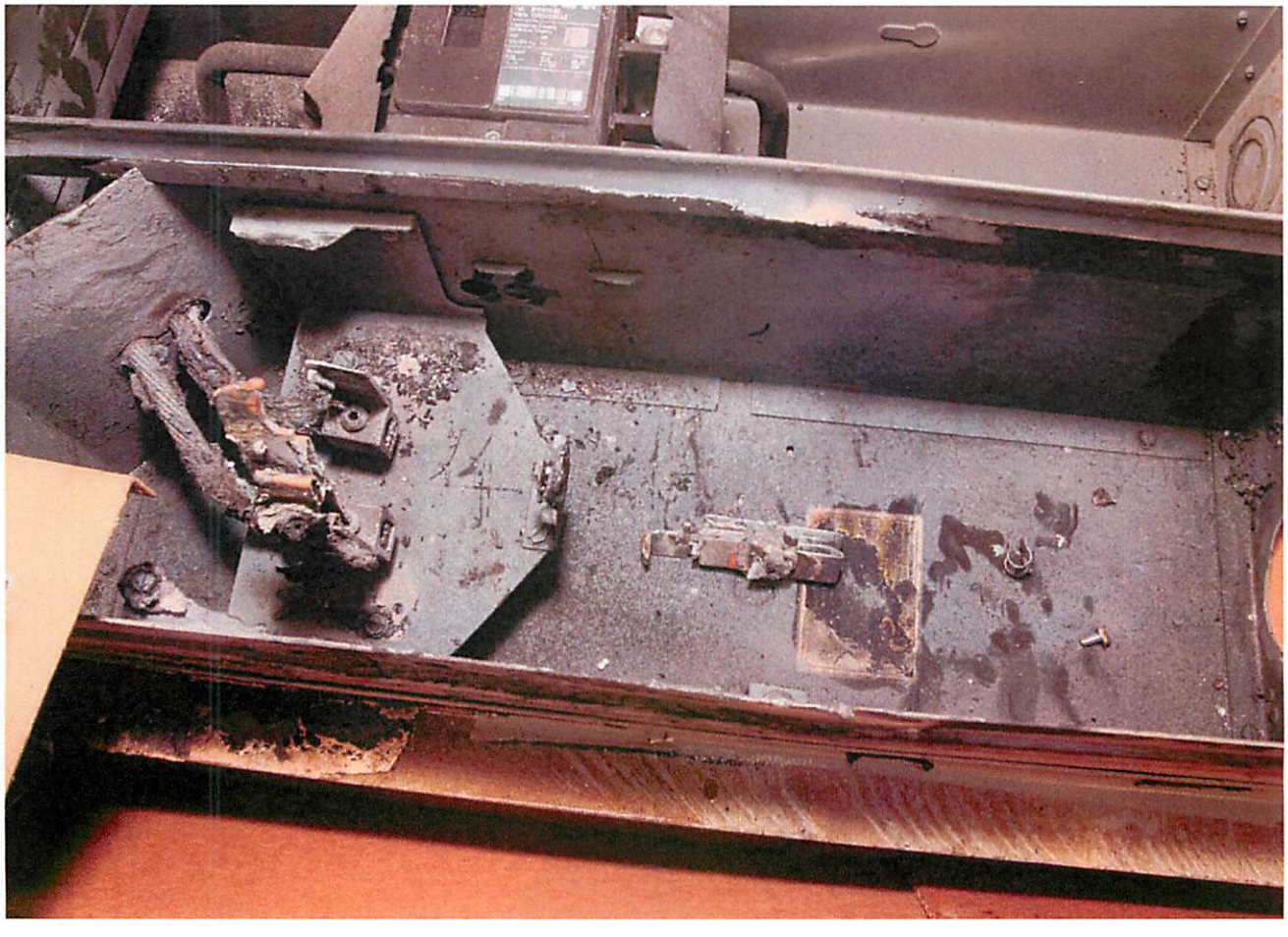


DANGER









Andrew J. Thoresen

athoresen@oracleforensics.net

Education:

Marquette University, Milwaukee, WI: Bachelor of Science in Electrical and Electronic Engineering
FE Certification, 2003
PE Certification, 2007; Licensed in Arizona (License: 47603), California (License: E19615), New Mexico (License: 19441), Nevada (License: 020220).

Work Experience:

Principal Electrical Engineer; May 2004 to Present
Oracle Forensics Inc, Phoenix, AZ

- Lead engineering expert on over 1200 fire/personal injury cases
- Contract electrical engineering services for the **Bureau of Alcohol, Tobacco, Firearms & Explosives (ATF)**.
- Professional Photographer
- Expert in loss site documentation, investigation, and preservation
- Testifying Expert
  - Trial experience includes Michael Marin trial, Maricopa County
- Electro-Fire/Water component failure analysis
- Examples of Classes taught by Mr. Thoresen in Forensic, Electrical Engineering:
  - Electrical Appliance Fires (Schaumberg, IL) 11/02
  - Arson 3 (Mesa, AZ) 10/03
  - Arson 2 (Bullhead City, AZ) 4/05
  - Arson Task Force Live Burn (Tempe, AZ) 2/06
  - International Association of Electrical Inspectors (Tempe, AZ) 7/06
  - Electrical Engineering Analysis and Evidence Collection (Scottsdale, AZ) 4/10
  - Electrical Engineering - Beyond Subrogation (Tempe, AZ) 4/11
  - Arc Mapping/Live Burn Demonstration at The City of Phoenix Fire Department HQ (Phoenix, AZ) 11/12
  - Forensic Electrical Engineering – A whiff of Electrical (Phoenix, AZ) 11/12
  - Electrical Fire Case Summary for Phoenix Fire Department Investigation Department (Phoenix, AZ) 2/13

Electrical Engineer/Manager of Southwest Territories, September 2002 to May 2004
Anderson Engineering of New Prague Inc, Phoenix, AZ

- Oversaw all day-to-day operations of the Phoenix office
- Deciphered the failure modes associated with hundreds of different electrical/water devices
- Electrical-fire scene investigations
- Consulted on cases for attorneys and aided in the litigation processes

Electrical Engineering Department, June 2001 to August 2001
Life Fitness, Franklin Park, IL

- Completed different tasks in reliability engineering:
  - Keypad enviro-chamber testing
  - Electrical component stress analysis
  - New component qualification testing:
    - MOSFET testing
    - NPN-BJT testing

Electrical Engineering Department, May 2000 to May 2001
Johnson Controls Inc, Milwaukee, WI

- Extensive testing with Metasys software, HVAC systems and thermostats
- Tested different types of thermostats
- Engaged in different capacitor, voltage ripple testing for power supplies.

ORACLE FORENSICS

P.O. Box 93846
Phoenix, AZ 85070-3846

Invoice

Date	Invoice #
8/27/2014	4394

Bill To
City of Reno Attn: Captain Tray Palmer palmert@reno.gov

Our File #	Claim#	Federal Tax ID:
20141350NV	Rhinestone	20-1198012

Item	Date	Description	Qty	Rate	Amount
Andrew Thores...	8/26/2014	Travel time to Reno.	4	275.00	1,100.00
Andrew Thores...	8/27/2014	Travel time, photograph evidence, document evidence, notes to file, engineering analysis, host inspection, examine all meters related to the Rhinestone, Arletta, El cap, and Wind Swept losses. Write report.	12.5	275.00	3,437.50
Expenses	8/27/2014	Flight to Reno ($716.20), Rental Car ($54), Hotel ($39)	1	809.20	809.20
Billable Hours	8/27/2014	CREDIT. Budgeted at $4k.	-1	1,346.70	-1,346.70

Total	$4,000.00
Payments/Credits	$0.00
Balance Due	$4,000.00

Phone #	Fax #	E-mail	Web Site
877-ORACLE-4	602-707-7531	athoresen@oracleforensics.net	www.oracleforensics.net