COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

OWEN ELECTRIC COOPERATIVE	)	
	)	
	)	CASE NO. 2013-00230
ALLEGED FAILURE TO COMPLY WITH KRS 278.042	)	
	)	

ORDER

Owen Electric Cooperative ("Owen Electric"), a Kentucky corporation that engages in the distribution of electricity to the public for compensation for light, heat, power, and other uses, is a utility subject to Commission jurisdiction.[1]

KRS 278.042 requires the Commission to ensure that each electric utility constructs and maintains its plant and facilities in accordance with accepted engineering practices as set forth in the Commission's administrative regulations and orders and in the most recent edition of the National Electrical Safety Code ("NESC").

KRS 278.030 requires every utility to furnish adequate, efficient, and reasonable service. KRS 278.260 permits the Commission, upon its own motion, to investigate any act or practice of a utility that affects or is related to the service of a utility. KRS 278.280(1) further permits the Commission, after conducting such investigation and finding that a practice is unreasonable, unsafe, improper, or inadequate, to determine the reasonable, safe, proper, or adequate practice or methods to be observed and to fix same by Order.

[1] KRS 278.010(3)(a).

Pursuant to 278.280(2), which directs the Commission to prescribe rules and regulations for the performance of services by utilities, the Commission has promulgated Administrative Regulation 807 KAR 5:006, Section 25, which requires all utilities to adopt and execute a safety program. 807 KAR 5:006, Section 25(1) requires each utility to establish a safety manual with written guidelines for safe working practices and procedures to be followed by utility employees. Here, Owen Electric has adopted the OEC Safety Manual.

Commission Staff submitted to the Commission an Incident Investigation Report ("Report"), regarding this incident, which is attached as Exhibit A. The report alleges that on September 6, 2012, James Juett, an Owen Electric employee, sustained injuries in the course of installing a pole on an energized circuit on Shorland Drive in Richwood, Boone County, Kentucky. A work crew including victim James Juett, Albert "Andy" Mullins, Charlie Colligan, Chris Dempsey, Simon Peters, Alan Brann, and crew leader Danny Clemons ("the crew"), all Owen Electric employees, was working at the incident site. The crew's job on the day of the incident was to set two poles going down a hill from a substation. Prior to the incident, the crew moved a digger derrick and a track machine into position. Both vehicles were grounded to a common grounding point, a screw in-ground rod that was approximately 7.5 feet behind the digger derrick.[2]

The incident occurred when a crew member was ascending in the bucket on the track machine. While crew member Simon Peters was in the raised aerial bucket, the

[2] Grounding multiple vehicles to a single grounding point violates Owen Electric's safety manual, Sections 311L, 617M, and 621B.

track machine's steel boom made contact with the energized conductor.[3] This contact energized both vehicles through the joint grounding system.[4] Mr. Juett was apparently in contact with the digger derrick when it became energized.[5] As a result of the incident Mr. Juett sustained burns on his right wrist and left foot. However, he was able to return to work the day after the incident.

Steve Kingsolver visited the incident site on September 7, 2012, to conduct an incident site investigation. Photographs were taken by Commission Staff during this site visit. Measurements of the lines were taken by Owen Electric personnel and observed by Commission Staff. Photographs were also taken by Owen Electric's safety department.

Owen Electric submitted its seven-day report on September 12, 2012.

Commission staff determined that Mr. Clemons, as the supervisor of the crew, had a duty to see that all safety rules and operating procedures were observed by the employees under his direction. Here, the crew failed to observe proper vehicle and chassis grounding requirements and failed to observe clearance requirements for aerial lifts and derricks. Notably, there was no clearance space maintained between the track machine and the conductor. The crew, under Mr. Clemon's supervision, also failed to utilize protective devices on the vehicle. Most significantly, this incident might have

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[3] Contact between the track machine and the energized conductor violated the APPA safety manual Section 3, 311-S, Section 3, 311-U, and NESC Section 44, Rule 441.A.1. a-c.

[4] Grounding multiple vehicles to a single grounding point violated the APPA safety manual, Section 3, 311-L, Section 6, 617-M, and Section 6, 621-B.

[5] Mr. Juett's contact with the vehicle when part of the lifting device was at or inside of the minimum approach distance violated the APPA safety manual Section 6, 621-C. Additionally, Mr. Juett's actions violated NESC Section 42, Rule 402.C.4, Section 42, Rule 421.A.1 & 2, and Section 42, Rule 422.A.2.

been avoided if the fiberglass insulated section of the boom had been extended when the platform was in use, as required by Section 6, 621-G of Owen Electric's safety manual. Finally, the crew failed to observe proper safeguarding procedures on the job site, resulting in violations of NESC Section 42, Rule 420.C.4; Section 42, Rule 421.A.1 & 2; and Section 42, Rule 422.A.2.

Based on Commission Staff's investigation of the incident as set forth in the Report and the information provided by Owen Electric in its seven-day summary report (Attachment A to the Report), Commission Staff alleges that Owen Electric has violated multiple provisions of the NESC and of its safety manual. These violations can be structured into four areas:

1. Failure to observe proper vehicle operation and chassis grounding requirements.

> a. OEC Safety Manual, Section 3, 311 (Cranes, Derricks), 311-L – When utilizing chassis grounding with two or more vehicles at the same job site (within 50'), all vehicles shall be bonded together with only one (1) cable attached to the main grounding point (system neutral). This procedure applies regardless of boom and/or pedestal insulation. (*** NOTE *** vehicle grounding cables shall not be raised or lowered: in the basket of an aerial lift, or held by an employee working from an aerial lift. Only approved raising or lowering methods (hand-line or winch-line) shall be used when raising or lowering a grounded conductor on any pole or tower.
>
> b. OEC Safety Manual, Section 3, 311 (Cranes, Derricks), 311-S – Operators of cranes, derricks, hoists, and other hoisting equipment shall exercise extreme caution when in close proximity to energized lines or equipment.
>
> c. OEC Safety Manual, Section 6, 617 (Grounding-General), 617-M – When utilizing chassis grounding with two or more vehicles at the same job site (within 50'), all vehicles shall be bonded together with only one (1) cable attached to

the main grounding point (system neutral). This procedure applies regardless of boom and/or pedestal insulation. (***NOTE*** vehicle grounding cables shall not be raised or lowered: in the basket of an aerial lift, or held by an employee working from an aerial lift. Only approved raising or lowering methods (hand-line or winch-line) shall be used when raising or lowering a grounded conductor on any pole or tower.

d. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-B – All derricks, aerial devise, cranes, and lifting equipment in work or load hoisting near energized lines or equipment shall utilize chassis grounding (See footnote (a). When utilizing chassis grounding with two or more vehicles at the same job site (within 50'), all vehicles shall be bonded together with only one (1) cable attached to the main grounding point. This procedure applies regardless of boom and/or pedestal insulation. (*** NOTE *** vehicle grounding cables shall not be raised or lowered: in the basket of an aerial lift, or held by an employee working from an aerial lift. Only approved raising or lowering methods (hand-line or winch-line) shall be used when raising or lowering a grounded conductor on any pole or tower.

e. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-H – When a derrick truck is used as an aerial platform in the vicinity of lines and equipment considered to be energized or that could become energized, the boom winch line must be removed from the boom tip and stored on the winch drum.

2. Failure to observe clearance requirements for aerial lifts and derricks.

a. NESC Section 44, Rule 441.A.1.a-c – Energized Conductors or Parts – Employees shall not approach (within the reach or extended reach), or knowingly permit others to approach, any exposed ungrounded part normally energized except as permitted by this rule. A. Minimum Approach Distance to Energized Lines or Parts 1. General – Employees shall not approach or bring any conductive object within the minimum approach distance listed in Table 441-1 or Table 441-4 or distances as determined by an engineering analysis to exposed parts unless one of the following is met: a. The line or part is de-energized and grounded per Rule 444D. b. The employee is insulated from the energized line or part. Electrical protective equipment

insulated for the voltage involved, such as tools, gloves, rubber gloves, or rubber gloves with sleeves, shall be considered effective insulation for the employee from the energized line or part being worked on. c. The energized line or part is insulated from the employee and from any other line or part at a different voltage.

b. OEC Safety Manual, Section 3, 313 (Aerial Devices), 313-U – Clearances: The aerial lift, together with the employee in the bucket and all tools and equipment shall maintain proper clearances from unprotected energized conductors. If it is difficult for the operator to determine the distance between the equipment and the energized parts accurately, another person shall observe the clearance and give timely warnings when minimum clearance distance is approaching. (Exception: Direct contact may be made when performing "live-line bare-hand" work). Refer to Table 6-1 and 6-2 for clearance requirements.

c. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-C – When any part of a derrick or lifting device or any part of the load being hoisted is at or inside of the minimum approach distance for the voltage being worked (refer to OEC Safety Manual table 6.1) of energized lines or equipment, the operator shall remain on the vehicle. Employees working on the ground shall not contact the vehicle or vehicles (unless using rubber protective equipment insulated for the voltage being worked). ***NOTE*** at this time the vehicle(s) should be considered as energized. The crew chief or designated employee in charge should be responsible for alerting crew members when this equipment is to be considered energized and also given the "ALL CLEAR" when equipment is clear of the minimum approach distance (refer to OEC Safety Manual table 6.1) and is safe to enter, exit and/or contact. Crews may also wish to barricade vehicle with traffic cones.

3. Failure to utilize protective devices on vehicle.

a. NESC Section 42, Rule 420.H – General Rules for Employees – Tools and Protective Equipment – Employees shall use the personal protective equipment, the protective devices, and the special tools provided for their work. Before starting work, these devices and tools shall be carefully inspected to make sure that they are in good condition.

b. NESC Section 44, Rule 446.B.3 – Live Work – Equipment – Tools and equipment shall not be used in a manner that will reduce the overall insulating strength of the insulated aerial device.

c. OEC Safety Manual, Section 6, 621 (Derricks, Trucks, Cranes), 621-G – When a derrick truck is used as an aerial platform in the vicinity of lines and equipment considered to be energized or that become energized, the fiberglass insulated section of the boom SHALL BE fully extended at all times the platform is in use.

4. Failure of utility staff to observe proper safeguarding procedures on job site.

a. NESC Section 42, Rule 420.C.4 – General Rules for Employees – Safeguarding Oneself and Others – Employees who work on or in the vicinity of energized lines shall consider all of the effects of their actions, taking into account their own safety as well as the safety of other employees on the job site, or on some other part of the affected electric system, the property of others, and the public in general.

b. NESC Section 42, Rule 421.A.1 & 2 - General Rules for Employees – General Operating Routines – Duties of a First-Level Supervisor or Person in Charge – This individual shall: 1. Adopt such precautions as are within the individual's authority to prevent accidents. 2. See that the safety rules and operating procedures are observed by the employees under the direction of this individual.

c. NESC Section 42, Rule 422.A.2 – Overhead Line Operating Procedures – Employees working on or with overhead lines shall observe the following rules in addition to applicable rules contained elsewhere in Section 43 and 44. – A. Setting, moving, or removing poles in or near energized electric supply lines – 2. Contact with trucks, or other equipment that is being used to set, move, or remove poles in or in the vicinity of energized lines shall be avoided by employees standing on the ground or in contact with grounded objects unless employees are wearing suitable protective equipment.

Based on its review of the Report and being otherwise sufficiently advised, the Commission finds that prima facie evidence exists that Owen Electric has failed to comply with KRS 278.042, the most recent edition the National Electrical Safety Code, and Owen Electric's safety manual. We further find that a formal investigation into the incident that is the subject matter of the Report should be conducted and that this investigation should also examine the adequacy, safety, and reasonableness of Owen Electric's practices related to the construction, installation and repair of electric facilities. We find that an informal conference between Commission Staff and Owen Electric, either telephonically or in person, shall be held on or before August 8, 2013. The purpose of the informal conference shall be to discuss any and all procedural and substantive matters that may lead to the simplification or resolution of outstanding issues.

The Commission, on its own motion, HEREBY ORDERS that:

1. Owen Electric shall submit to the Commission, within 20 days of the date of this Order, a written response to the allegations contained in the Report.

2. Commission Staff shall schedule and hold an informal conference with Owen Electric by August 8, 2013 to discuss any and all procedural and substantive matters that may lead to the simplification or resolution of outstanding issues.

3. Owen Electric shall appear on September 12, 2013, at 10:00 a.m., Eastern Daylight Time, in Hearing Room 1 of the Commission's offices at 211 Sower Boulevard in Frankfort, Kentucky, for the purpose of presenting evidence concerning the alleged violations of KRS 278.042, the most recent edition the National Electrical Safety

Code, and Owen Electric's safety manual, and of showing cause why it should not be subject to the penalties prescribed in KRS 278.990(1) for these alleged violations.

4. At the scheduled hearing in this matter, Owen Electric shall also present evidence on the adequacy, safety, and reasonableness of its practices related to the construction, installation, and repair of electric facilities as they relate to the facts of this case and whether such practices require revision as related to this incident.

5. The September 12, 2013 hearing shall be recorded by videotape only.

6. The Report in Exhibit A is made a part of the record in this case.

By the Commission

ENTERED
JUN 2 8 2013
KENTUCKY PUBLIC
SERVICE COMMISSION

ATTEST:

Executive Director

EXHIBIT A

ACCIDENT INVESTIGATION ~ Staff Report

Report Date ~ November 27, 2012

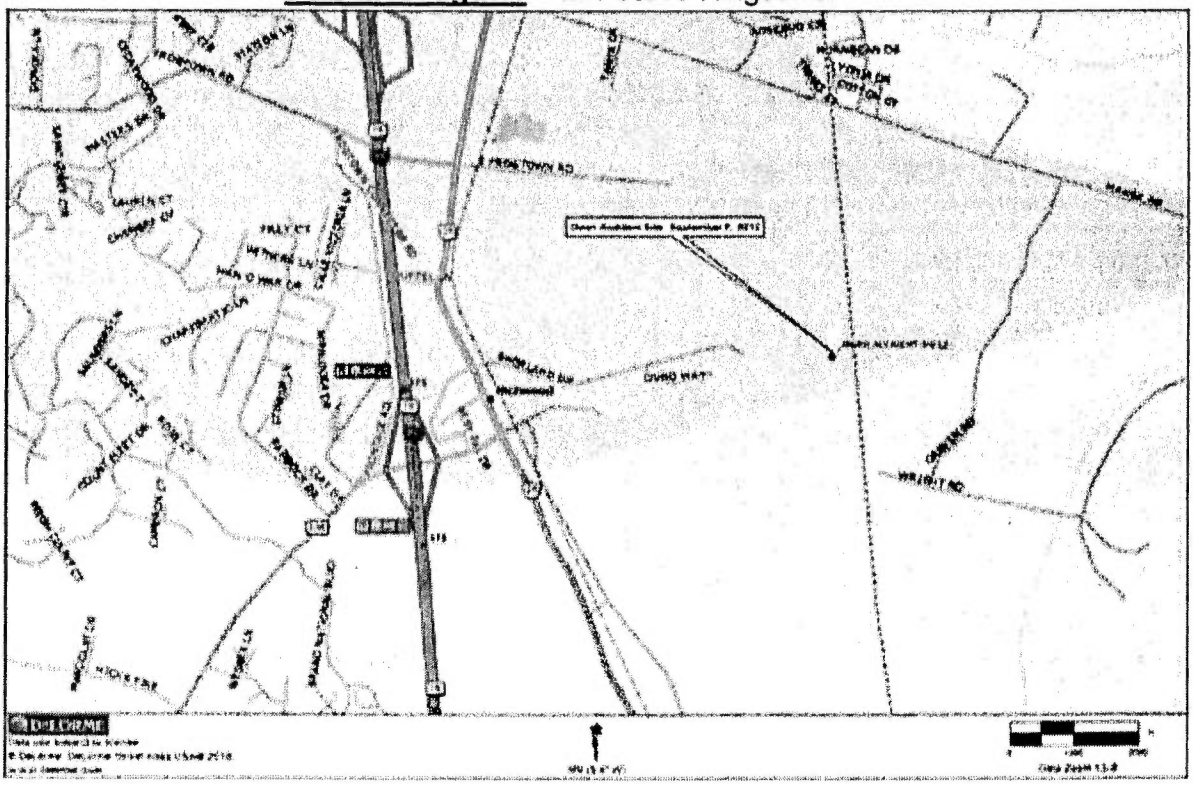
Accident Date ~ September 6, 2012

Serving Utility ~ Owen Electric Cooperative (Owen Electric)

Accident Location ~ Shorland Drive, Richwood, Kentucky

Victim ~ Mr. James Juett

PSC Investigator ~ Mr. Steve Kingsolver



SECTION IA: INVESTIGATION - CONTACTS/ACTIONS

Date: September 7, 2012 **Time:** 9:00AM

PSC Staff Member: Steve Kingsolver

Contact Name: Albert (Andy) Mullins, Owen Electric Cooperative

Contact Address: PO Box 400, Owenton, Ky. 40359

Contact Telephone: 502-484-3471

Summary of Conversation/Action: Discussion of the Owen Electric 9-6-12 accident

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Date: September 7, 2012 **Time:** 9:00AM

PSC Staff Member: Steve Kingsolver

Contact Name: Charlie Colligan, Owen Electric Cooperative

Contact Address: PO Box 400, Owenton, Ky. 40359

Contact Telephone: 502-484-3471

Summary of Conversation/Action: Discussion of the Owen Electric 9-6-12 accident

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Date: September 7, 2012 **Time:** 9:00AM

PSC Staff Member: Steve Kingsolver

Contact Name: Chris Dempsey, Owen Electric Cooperative

Contact Address: PO Box 400, Owenton, Ky. 40359

Contact Telephone: 502-484-3471

Summary of Conversation/Action: Discussion of the Owen Electric 9-6-12 accident

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Date: September 7, 2012 **Time:** 9:00AM

PSC Staff Member: Steve Kingsolver

Contact Name: Danny Clemons, Owen Electric Cooperative

Contact Address: PO Box 400, Owenton, Ky. 40359

Contact Telephone: 502-484-3471

Summary of Conversation/Action: Discussion of the Owen Electric 9-6-12 accident

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Date: September 7, 2012 **Time:** 9:00AM

PSC Staff Member: Steve Kingsolver

Contact Name: James Juett, Victim, Owen Electric Cooperative

Contact Address: PO Box 400, Owenton, Ky. 40359

Contact Telephone: 502-484-3471

Summary of Conversation/Action: Discussion of the Owen Electric 9-6-12 accident

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Date: September 7, 2012 **Time:** 9:00AM

PSC Staff Member: Steve Kingsolver

Contact Name: Simon Peters, Owen Electric Cooperative

Contact Address: PO Box 400, Owenton, Ky. 40359

Contact Telephone: 502-484-3471

Summary of Conversation/Action: Discussion of the Owen Electric 9-6-12 accident

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Date: September 7, 2012 **Time**: 9:00AM

PSC Staff Member: Steve Kingsolver

Contact Name: Alan Brann, Owen Electric Cooperative

Contact Address: PO Box 400, Owenton, Ky. 40359

Contact Telephone: 502-484-3471

Summary of Conversation/Action: Discussion of the Owen Electric 9-6-12 accident

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Date: September 7, 2012 **Time:** 9:00AM

PSC Staff Member: Steve Kingsolver

Contact Name: Tony Dempsey, Owen Electric Cooperative

Contact Address: PO Box 400, Owenton, Ky. 40359

Contact Telephone: 502-484-3471

Summary of Conversation/Action: Discussion of the Owen Electric 9-6-12 accident

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Date: September 7, 2012 **Time:** 9:00AM

PSC Staff Member: Steve Kingsolver

Contact Name: Rusty Williams, Owen Electric Cooperative

Contact Address: PO Box 400, Owenton, Ky. 40359

Contact Telephone: 502-484-3471

Summary of Conversation/Action: Discussion of the Owen Electric 9-6-12 accident

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Date: September 7, 2012 **Time:** 9:00AM

PSC Staff Member: Steve Kingsolver

Contact Name: Mark Stallons, Owen Electric Cooperative

Contact Address: PO Box 400, Owenton, Ky. 40359

Contact Telephone: 502-484-3471

Summary of Conversation/Action: Discussion of the Owen Electric 9-6-12 accident

Date: September 7, 2012 **Time:** 9:00AM

PSC Staff Member: Steve Kingsolver

Contact Name: David White, Kentucky Association of Electric Cooperatives

Contact Address: PO Box 32170, Louisville, Ky. 40232

Contact Telephone: 502-451-2430

Summary of Conversation/Action: Discussion of the Owen Electric 9-6-12 accident

SECTION IB: INVESTIGATION - SUPPORTING INFORMATION

(Attach tables, DOT report, etc.)

See Investigator's Report (Attachment A)

SECTION II: FINDINGS

It is the investigator's opinion that Owen Electric did not meet or exceed the following requirements set forth in the Commission Regulations, the National Electrical Safety Code, and Owen Electric's Safety Manual.

SECTION III: RELEVANT CODES, STATUTES, REGULATIONS, OR SAFETY MANUAL ISSUES THAT ARE PERTINENT TO THE INVESTIGATION

807 KAR 5:006. General rules.
RELATES TO: KRS Chapter 278, 49 C.F.R. Part 192
STATUTORY AUTHORITY: KRS 278.280(2), 49 C.F.R. Part 192
NECESSITY, FUNCTION, AND CONFORMITY: KRS 278.280(2) provides that the Public Service Commission (hereinafter referred to as "commission") shall prescribe rules for the performance of any service or the furnishing of any commodity by any utility. This administrative regulation establishes general rules which apply to electric, gas, water, sewage and telephone utilities. This administrative regulation includes the substance of 807 KAR 5:008, which it repeals.

807 KAR 5:006 General Rules
Section 24: Safety Program

Section 24: Safety Program: Each utility shall adopt and execute a safety program, appropriate to the size and type of its operations. At a minimum, the safety program shall:

(1) Establish a safety manual with written guidelines for safe working practices and procedures to be followed by utility employees.
(2) Instruct employees in safe methods of performing their work.
(3) Instruct employees who, in the course of their work, are subject to the hazard of electrical shock, asphyxiation or drowning, in accepted methods of artificial respiration.

Owen Electric Safety Manual
(September 6, 2012 Accident) (Victim: Juett)
See Owen Electric Safety Manual to view each rule and table in its entirety.

Section 3: Vehicle Operation
311 (Cranes, Derricks)
311-L P-45

When utilizing chassis grounding with two or more vehicles at the same job site (within 50 feet), all vehicles shall be bonded together with only one cable attached to the main grounding point (system neutral). This procedure applies regardless of boon and/or pedestal insulation.
NOTE Vehicle grounding cables shall not be raised or lowered in the aerial lift, or held by an employee working from an aerial lift. Only approved raising or lowering methods (hand line or winch line) shall be used when raising or lowering a grounded conductor on any pole or tower.

Section 3: Vehicle Operation
311 (Cranes, Derricks)
311-S P-45

Operators of cranes, derricks, hoists, and other hoisting equipment shall exercise extreme caution when in close proximity to energized lines or equipment.

Section 3: Vehicle Operation
313 (Aerial Devices)
313-U P-48

Clearances: The aerial lift, together with the employee in the bucket and all tools and equipment shall maintain proper clearances from unprotected energized conductors. If it is difficult for the operator to determine the distance between the equipment and the energized parts accurately, another person shall observe the clearance and give timely warnings when minimum clearance distance is approaching. (Exception: Direct contact may be made when performing "live-line bare-hand' work.) Refer to Table 6-1 and 6-2 for clearance requirements.

Section 6: Overhead Distribution and Transmission
617 (Grounding-General)
617-M P-82

When utilizing chassis grounding with two or more vehicles at the same job site (within 50 feet), all vehicles shall be bonded together with only one cable attached to the main grounding point (system neutral). This procedure applies regardless of boon and/or pedestal insulation.

NOTE Vehicle grounding cables shall not be raised or lowered in the aerial lift, or held by an employee working from an aerial lift. Only approved raising or lowering methods (hand line or winch line) shall be used when raising or lowering a grounded conductor on any pole or tower.

Section 6: Overhead Distribution and Transmission
621 (Derricks, Trucks, Cranes)
621-B P-86

All derricks, aerial devise, cranes, and lifting equipment in work or load hoisting near energized lines or equipment shall utilize chassis grounding (See footnote a). When utilizing chassis grounding with two or more vehicles at the same job site (within 50 feet), all vehicles shall be bonded together with only one cable attached to the main grounding point (system neutral). This procedure applies regardless of boon and/or pedestal insulation.
NOTE Vehicle grounding cables shall not be raised or lowered in the aerial lift, or held by an employee working from an aerial lift. Only approved raising or lowering methods (hand line or winch line) shall be used when raising or lowering a grounded conductor on any pole or tower.

1. Vehicle chassis grounding shall be used unless the installation of such grounding equipment creates jobsite hazards which could result in an unsafe work environment and/or public. In these conditions the employee in charge of the worksite may opt not to use chassis grounding. Vehicle barricading may be utilized and this change in procedure shall be noted on job briefing form.

Section 6: Overhead Distribution and Transmission
621 (Derricks, Trucks, Cranes)
621-C P-86

When any part of a derrick or lifting device or any part of the load being hoisted is at or inside of the minimum approach distance for the voltage being worked (refer to OEC Safety Manual table 6.1) of energized lines or equipment, the operator shall remain on the vehicle. Employees working on the ground shall not contact the vehicle or vehicles (unless using rubber protective equipment insulated for the voltage being worked).
NOTE at this time the vehicle(s) should be considered as energized. The crew chief or designated employee in charge should be responsible for alerting crew members when this equipment is to be considered energized and also given the "all clear" when equipment is clear of the minimum approach distance (refer to OEC Safety Manual table 6.1) and is safe to enter, exit and/or contact. Crew may also wish to barricade vehicle with traffic cones.

Section 6: Overhead Distribution and Transmission
621 (Derricks, Trucks, Cranes)
621-G P-87

When a derrick truck is used as an aerial platform in the vicinity of lines and equipment considered to be energized, the fiberglass insulated section of the boom SHALL BE extended at all times the platform is in use.

Section 6: Overhead Distribution and Transmission
621 (Derricks, Trucks, Cranes)
621-H P-87

When a derrick truck is used as an aerial platform in the vicinity of lines and equipment considered to be energized or that could become energized, the boom winch line must be removed from the boom tip and stored on the winch drum.

278.042 Service adequacy and safety standards for electric utilities National Electrical Safety Code

(1) For the purposes of this section, "NESC" means the National Electrical Safety Code as published by the Institute of Electrical and Electronics Engineers, Inc.
(2) Except as otherwise provided by law, the commission shall, in enforcing service adequacy and safety standards for electric utilities, ensure that each electric utility constructs and maintains its plant and facilities in accordance with accepted engineering practices as set forth in the commission's administrative regulations and orders and in the most recent edition of the NESC.
Effective: June 24, 2003
History: Created 2003 Ky. Acts Ch. 84, sec. 1, Effective June 24, 2003.

2012 National Electric Safety Code:
See 2012 NESC Code to view each rule and table in its entirety.

Section 42 General rules for employees
420 General

C. Safeguarding oneself and others
4. Employees who work on or in the vicinity of energized lines shall consider all of the effects of their actions, taking into account their own safety as well as the safety of other employees on the job site, or on some other part of the affected system, the property of others, and the public in general.

Section 42 General rules for employees
420. General

H. Tools and Protective Equipment
Employees shall use the personal protective equipment, the protective devices, and the special tools provided for their work. Before starting work, these devices and tools shall be carefully inspected to make sure that they are in good condition.

Section 42 General rules for employees
421. General operating routines

A. Duties of a First-Level Supervisor or Person in Charge
This individual shall:
1. Adopt such precautions as are within the individual's authority to prevent accidents.
2. See that the safety rules and operating procedures are observed by the employees under the direction of this individual.

Section 42 General rules for employees
422. Overhead line operating procedures

Employees working on or with overhead lines shall observe the following rules in addition to applicable rules contained elsewhere in sections 43 and 44.
A. Setting, moving, or removing poles in or near energized electric supply lines
2. Contact with trucks, or other equipment that is being used to set, move, or replace poles in or in the vicinity of energized lines shall be avoided by employees standing on the ground or in contact with the grounded objects unless employees are wearing suitable protective equipment.

Section 44 Additional rules for supply employees
441. Energized Conductors or Parts

Employees shall not approach (within the reach or extended reach), or knowingly permit others to approach, any exposed ungrounded part normally energized except as permitted by this rule.

A. Minimum Approach Distance to Live Parts

1. General

Employees shall not approach or bring any conductive object within the minimum approach distance listed in Table 441-1 or Table 441-4 or distances as determined by an engineering analysis to exposed parts unless one of the following is met:

a. The line or part is de-energized and grounded per Rule 444D.

b. The employee is insulated from the energized line or part. Electrical protective equipment insulated for the voltage involved, such as tools, gloves, rubber gloves, or rubber gloves with sleeves, shall be considered effective insulation for the employee from the energized part being worked on.

c. The energized line or part is insulated from the employee and from any other line or part at a different voltage.

Table 441-1: AC Live Work Minimum Approach Distance
(See Rule 441 in its entirety.)
Voltage in kilovolts - phase to phase
Distance to employee

	Phase-to-ground (ft–in)	Phase-to-phase (ft–in)
0 to 0.0501	not specified	not specified
0.051 to 0.300	avoid contact	avoid contact
0.301 to 0.750	1-1	1-1
0.751 to 15	2-2	2-3
15.1 to 36.0	2-5	2-10
36.1 to 46.0	2-7	3-1
46.1 to 72.5	2-11	3-9

Section 44 Additional rules for supply employees
446. Live work

All employees using live work practices shall observe the following rules in addition to applicable rules contained elsewhere in Sections 42 and 44.

The distances specified in Table 441-1, Table 441-2 shall be maintained from all grounded objects and from other conductors, lines, and equipment having a potential different from that to which conductive equipment and devices are bonded in order to maintain the equipotentially energized work environment in an isolated state.

B. Equipment

3. Tools and equipment shall not be used in a manner that will reduce the overall insulating strength of the insulated aerial device.

SECTION IV: NOTIFICATION FROM UTILITY

From: Kingsolver, Steve
Sent: Thursday, September 06, 2012 12:58 PM
To: Bowman, Eric; Ernst, Melinda A; Gorjian, Fereydoon: Johnson, Jeff; Kingsolver, Steve; Moore, Jeffrey C; Morris, Scott A; Russell, Elie R; Shupp, John; Willard, Kyle
Subject: Owen Electric Accident

Owen Electric Accident Notification
Reported By: Tony Dempsey
Reported at: 11:50AM. 9-6-12
Happened: Approximately 15 Minutes before reporting Time. 9-6-12

Possible Employee Primary Contact
Employee in the Hospital

More information will follow. Safety Director (Dempsey) was on the way to the Hospital at reporting time.

I will investigate this accident tomorrow if additional information warrants.

Steve Kingsolver

Investigated By:	Name:	Company:
	Steve Kingsolver Utility Regulatory and Safety Investigator IV	KPSC

Signed: Steve Kingsolver

Date: NOVEMBER 27, 2012

Attachments:

A. KPSC Investigator Report
B. Utility Summary Report
C. Utility Additional Information
D. KPSC Photographs of Accident Site
E. KPSC Map of Accident Site

Attachment A

KPSC Investigator Report

Investigator Report

Utility:	Owen Electric Cooperative (Owen Electric)	
Reported By:	Tony Dempsey, Owen Electric Safety Director	
Incident Occurred:	September 6, 2012	Approximately 11:35 AM, EDT
Utility Notified:	September 6, 2012	Approximately 11:35 AM, EDT
PSC Notified:	September 6, 2012	Approximately 11:50 AM, EDT
PSC Investigated:	September 7, 2012	Approximately 8:30 AM, EDT
Report Received:	September 12, 2012	
Incident Location:	East End of Shorland Drive Richwood, Kentucky Boone County	

Incident Description:
This accident took place at approximately 11:40 AM EDT on September 6, 2012. The location of this accident was Shorland Road in Boone County, Kentucky. The crew was performing the task of setting a pole inline on a 7.2kV energized circuit. The hole had been dug and they were in the process of covering the energized phase conductors when the steel head of the boom on the track machine, being used as a man lift, made contact with the energized 7.2kV phase conductor. This action, in turn, energized the entire tract machine and the derrick truck that was being used to dig the hole and set the pole. All of the vehicles at this jobsite were grounded to a common grounding point, a screw in ground rod that was approximately 7.5 feet behind the derrick truck. At the time of the phase contact, the victim, James Juett, age 25, was in contact with or in the vicinity of the derrick truck. The victim had burns on his right wrist and left foot. The victim was taken to the hospital after the accident and did return to work the following day. At the time of the accident the other crew members were watching the energized phase conductor being covered, leading to the fact that there were no witnesses to what position the victim was in, or what he was in contact, with at the time of this accident. The victim, when interviewed on September 7, 2012, believed he was in contact with the outrigger at the rear of the derrick truck with his right foot while in the process of cleaning the mud off of his boot. The person in charge of this jobsite was Danny Clemons (Crew Leader).

Victim:	Name:	Address:	Employer:
	James Juett	4085 Highway 127 Owenton, Kentucky	Owen Electric

Age: 25
Injuries: Burns to right wrist and left foot
Victim returned to work the next day.

Witnesses:	Name:	Address:	Employer:

There were no witnesses to this accident. Everyone working at this site was watching the work being performed.

Investigated By:	Name:	Company:
	Steve Kingsolver Utility Regulatory & Safety Investigator IV	KPSC

Signed: Steve Kingsolver

Date: NOVEMBER 27, 2012

Attachment B

Utility Summary Report

ENG

RECEIVED
SEP 12 2012
PUBLIC SERVICE COMMISSION

September 12, 2012

Commonwealth of Kentucky
Public Service Commission
211 Sower Blvd.
P.O. Box 615
Frankfort, Ky 40602

Re: 9-6-12 Employee Contact Accident

Dear Mr. Jeff Derouen,

In regard to the employee contact accident that occurred on September 6, 2012, we are submitting the following report.

Report

At approximately 11:40am, on September 6, 2012 I received notification that an Owen Electric employee, James Juett, age 25 residing at 4085 Hwy 127, Owenton, had received an electric shock.

I then notified Mr. Steve Kingsolver, PSC Investigator, at 11:50am.

One of our construction crews was in the process of setting a pole in an energized 3 phase line at the end of Shorland Dr. in Boone County, KY (OEC map Loc #61409093915). They had set up a digger truck (#849) and dug the hole where the pole was going to be set. Then they used the track machine unit (#855) to pull the pole they needed down to the work area, and while having the track machine at the work area, they decided to use the bucket on this unit to cover the energized lines with rubber line hose. Both pieces of equipment were grounded at the same point to a screw in ground rod that was 7 ft. 5 in. behind the digger truck, and the substation OCR 214 at Duro Substation was placed in non-reclose at 11:14 am. While another Owen Electric employee, Simon Peters, was in the bucket of track machine #855 applying line hoses on B phase, the end of the track machine's steel boom came in contact with the energized conductor. This in turn energized everything that was connected to it through the path of the ground chains. Mr. Peters was wearing all required PPE and fall protection while in the bucket. At the time this contact with B phase occurred (11:39am), James Juett, who was standing near the rear corner of digger truck # 849, received an electric shock and saw an electric arc. James suffered minor burns to the right wrist and the outside edge of the left foot. None of the other employees on the jobsite saw what James was in contact with as they were watching the employee covering the line. Due to the lack of evidence it is undetermined what James was in contact with that served as the path for entry.

At the time that contact was made, the vertical clearances of related conductors are as follows, and are also documented in photos that are included.

The following measurements are with line hoses installed at an air temperature of 77 degrees.

Neutral to ground w/ 1 line hose	15 ft. 11 in.
A phase to ground w/ 5 line hose	17 ft. 1 in.
B phase to ground w/ 3 line hose	19 ft. 1 in.
C phase to ground w 0 line hose	20 ft. 3 in.

The following measurements are with no line hoses installed at an air temperature of 58 degrees.

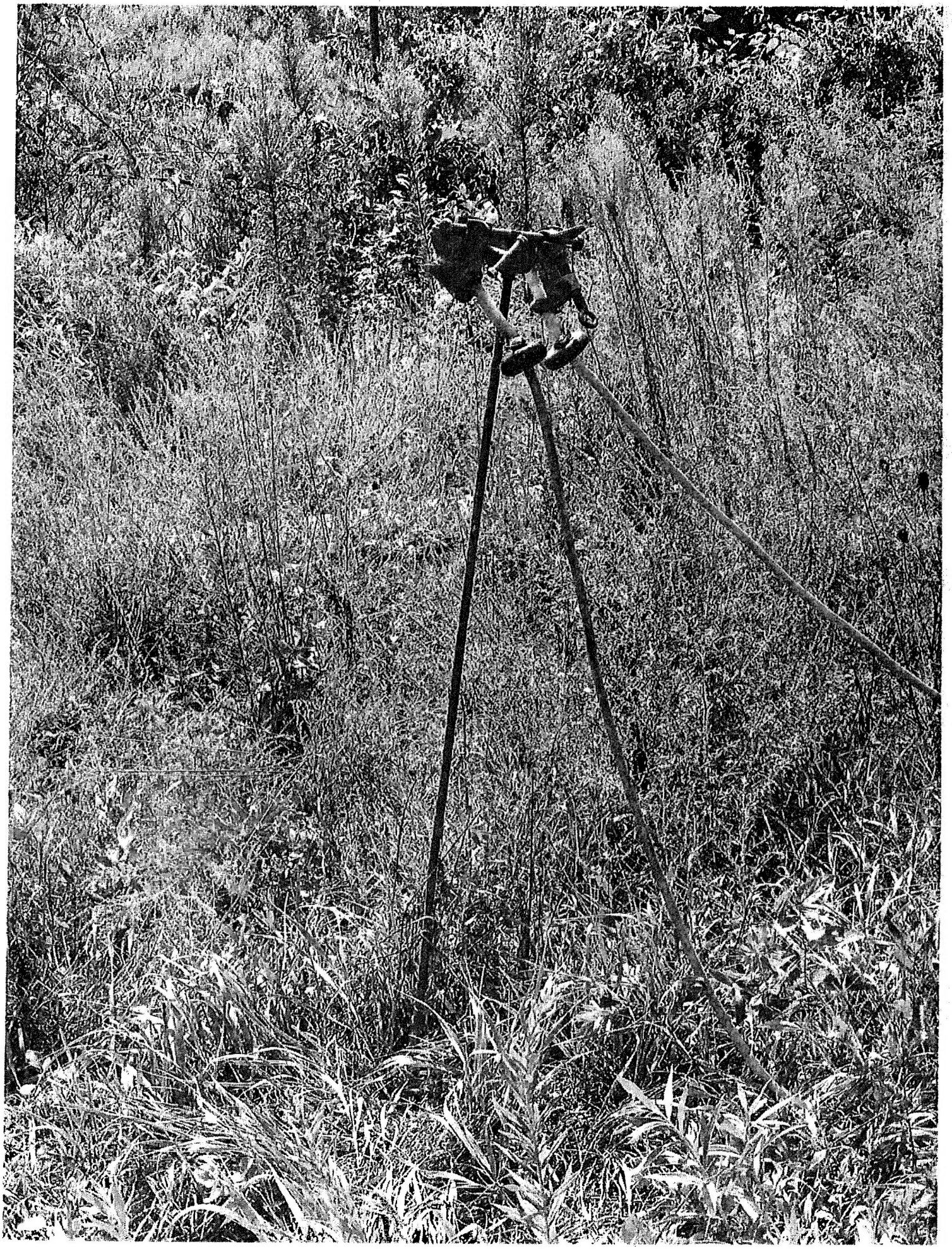
Neutral to ground	18 ft. 6 in.
A phase to ground	21 ft. 10 in.
B phase to ground	22 ft. 4 in.
C phase to ground	21 ft. 6in.

See Attachments – Attachment #1 Photographs of Accident site
Attachment #2 Facility Map
Attachment #3 Outage Ticket
Attachment #4 Job Briefings with Construction Dates Included
Attachment #5 Dielectric Tests of Equipment Involved

I am still getting information associated with the Protective Device Rating and Operation Report. I will mail this to you as soon as it becomes available to me.

Regards,

Tony Dempsey
Manager of Safety
Owen Electric Cooperative

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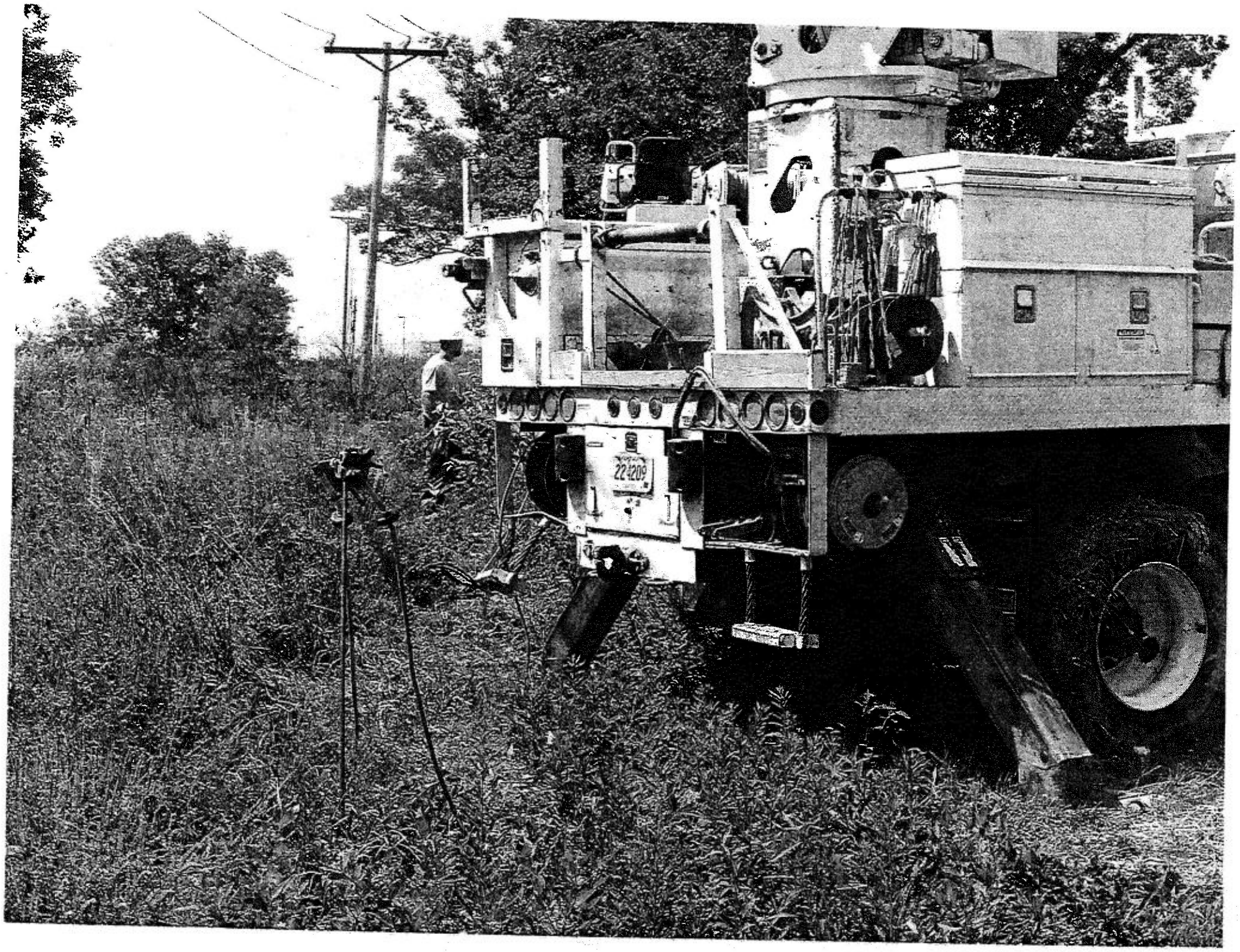
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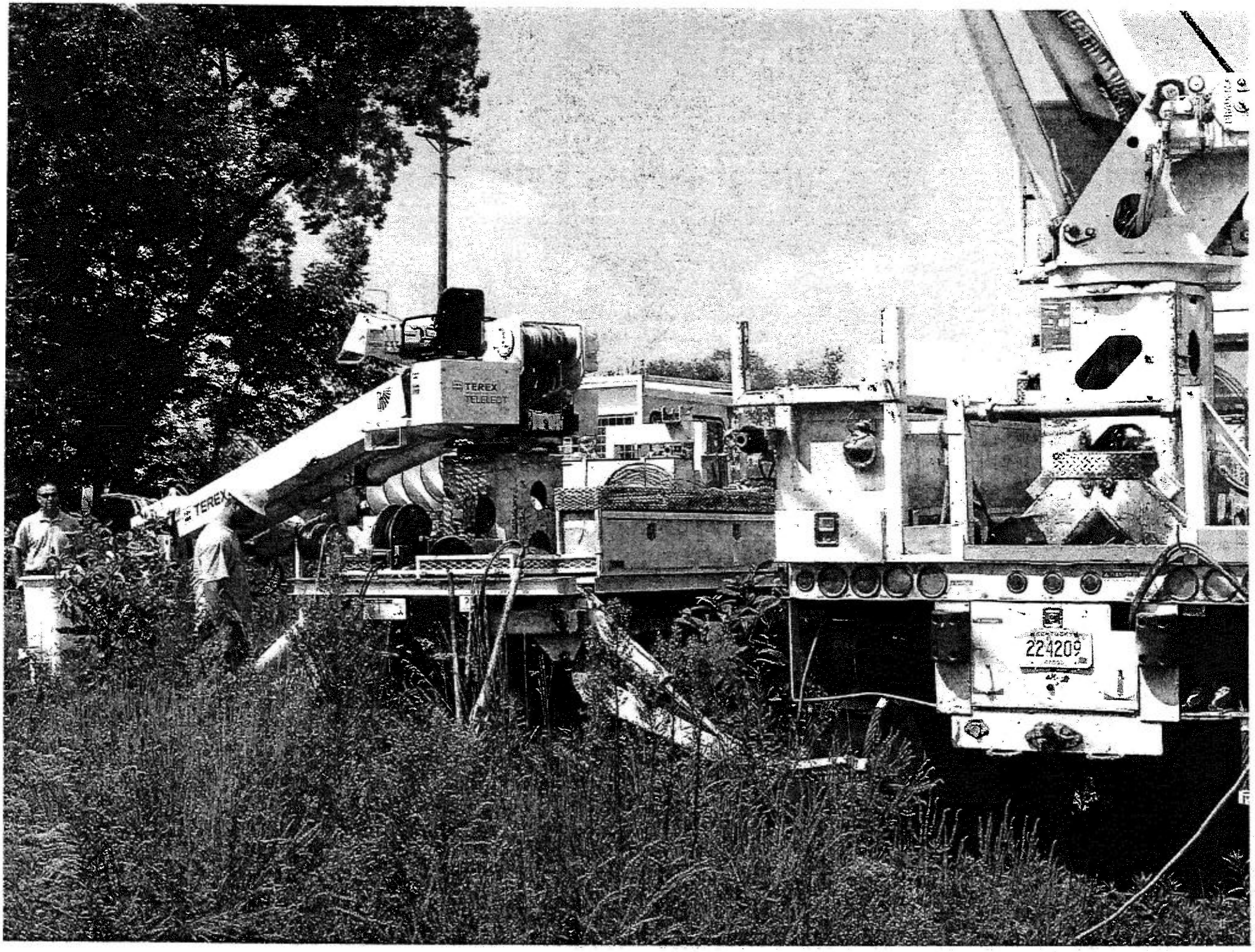
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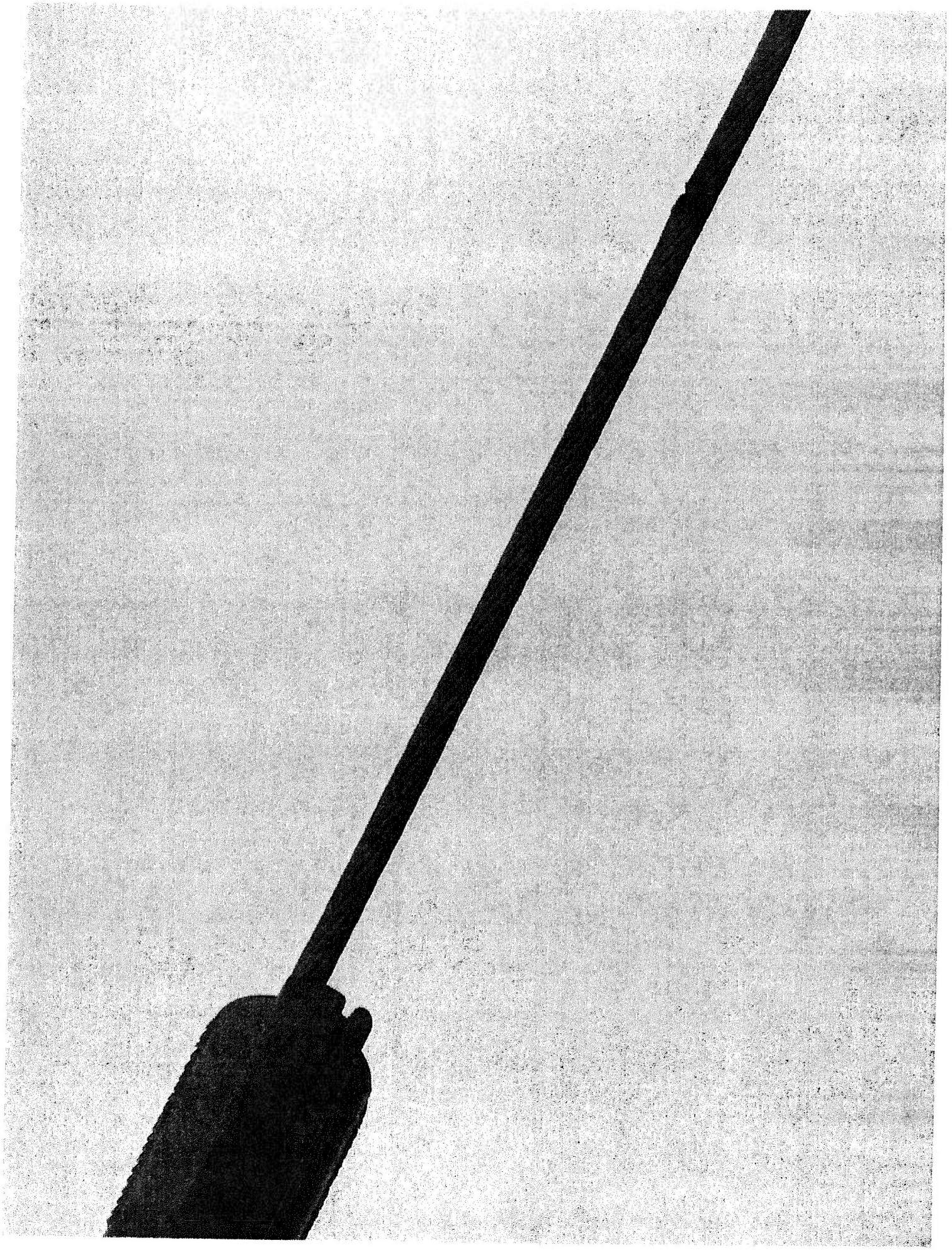

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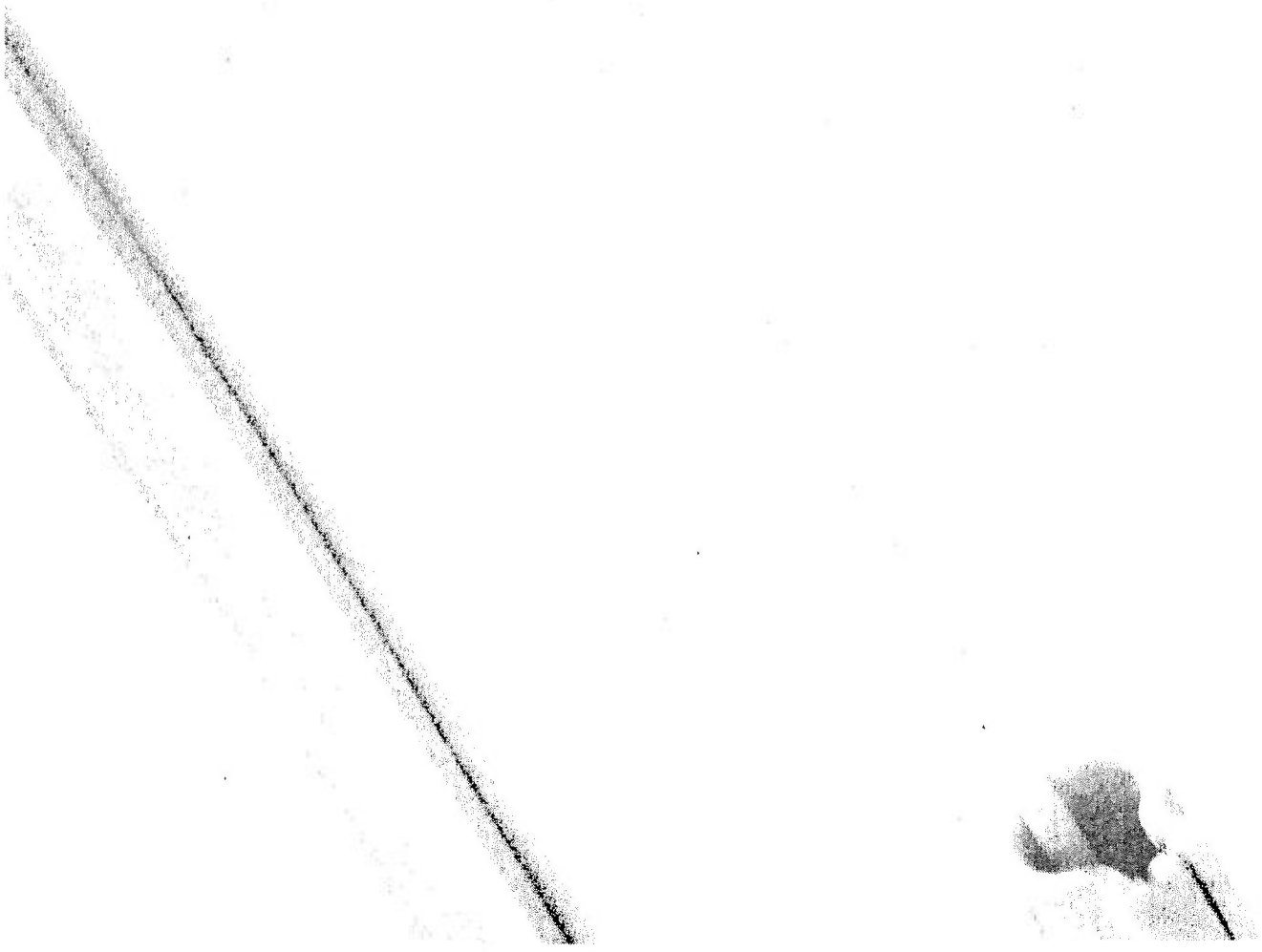

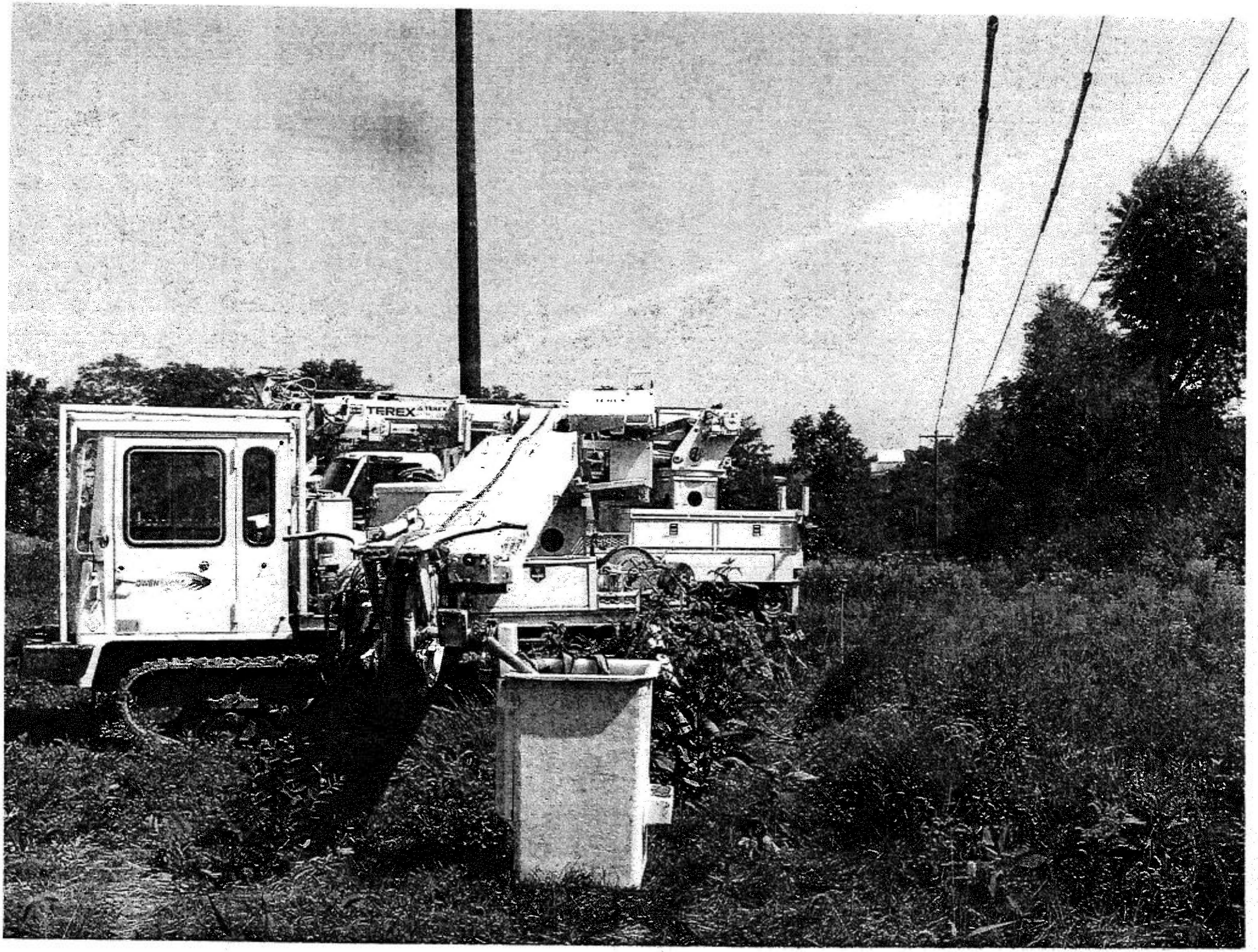
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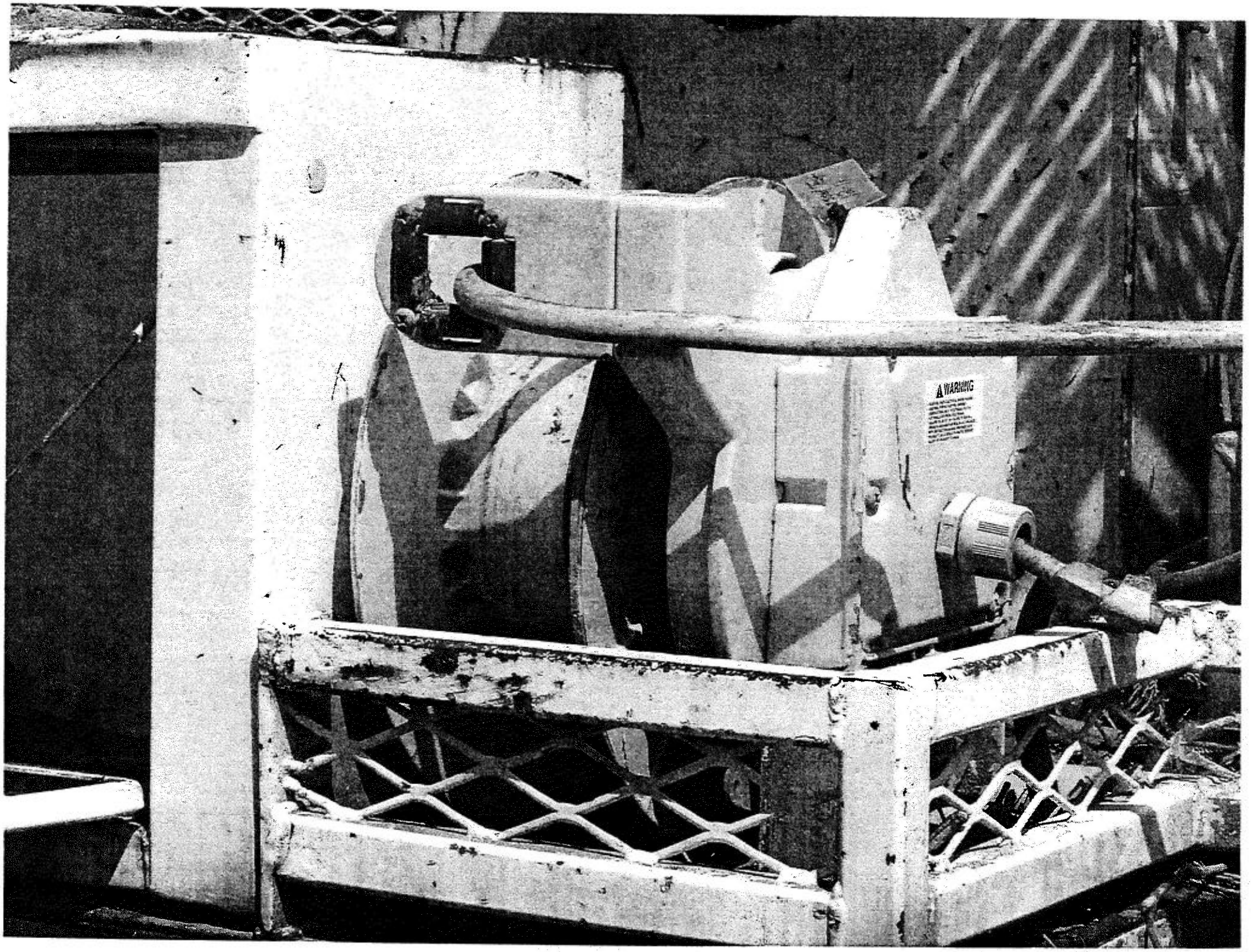
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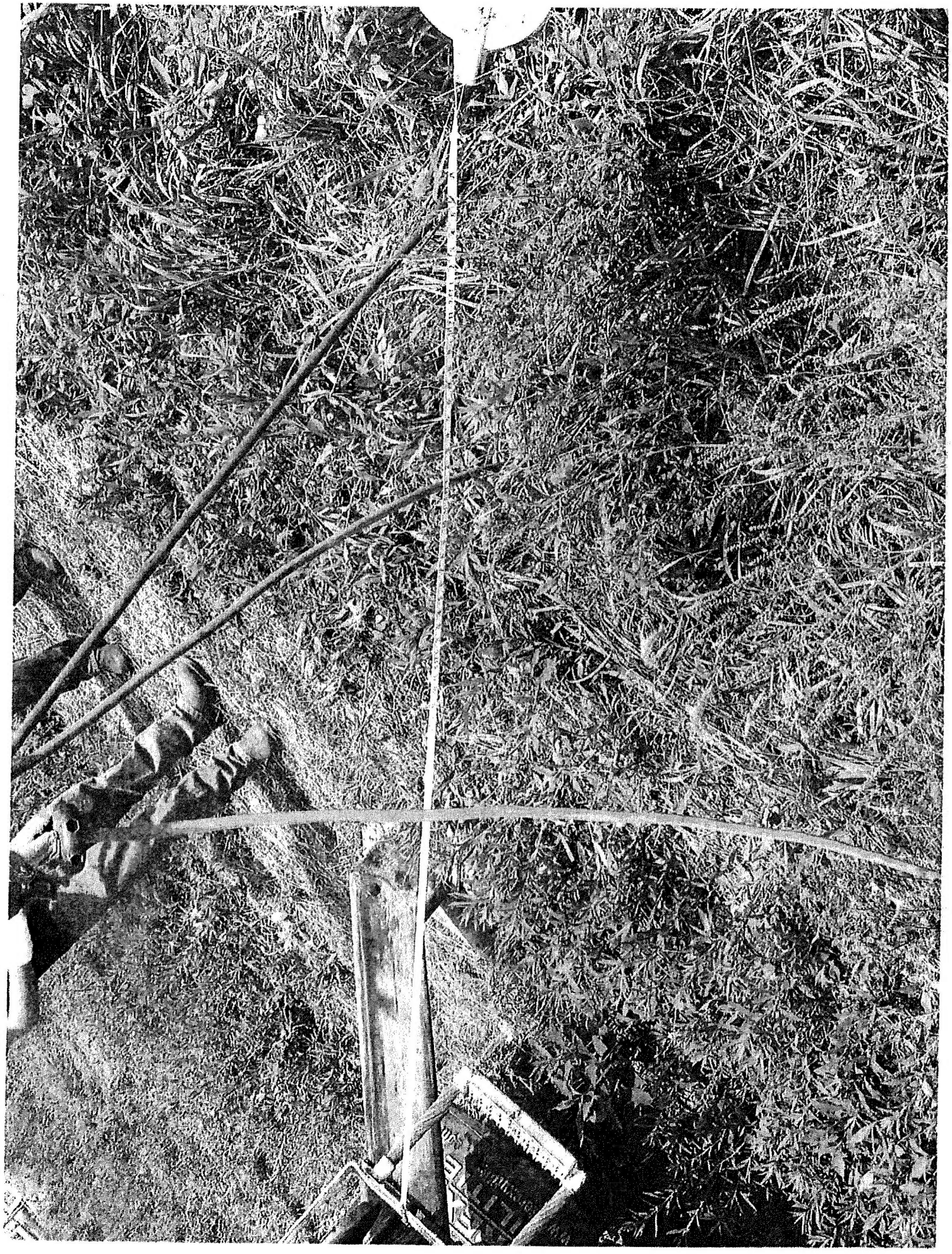
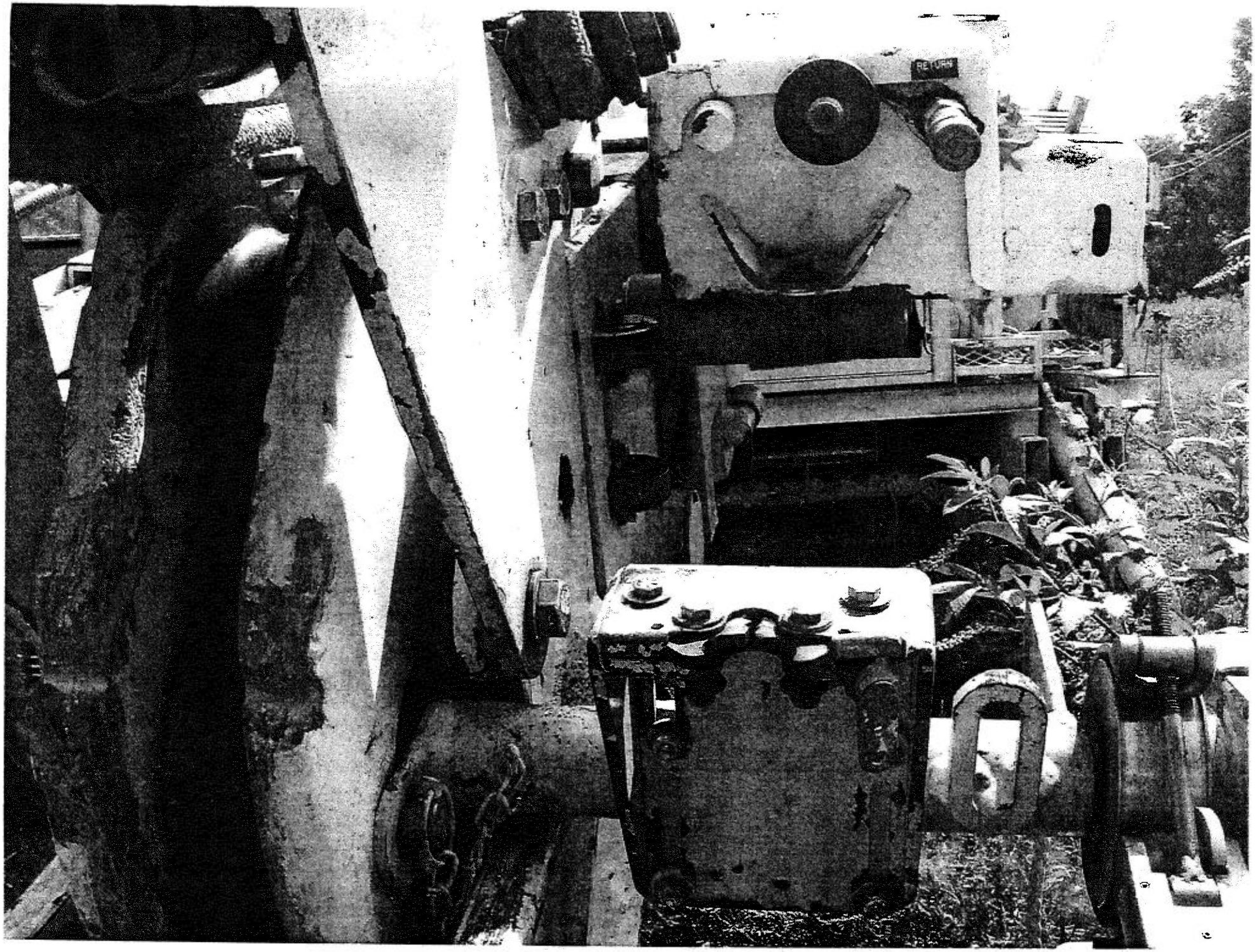
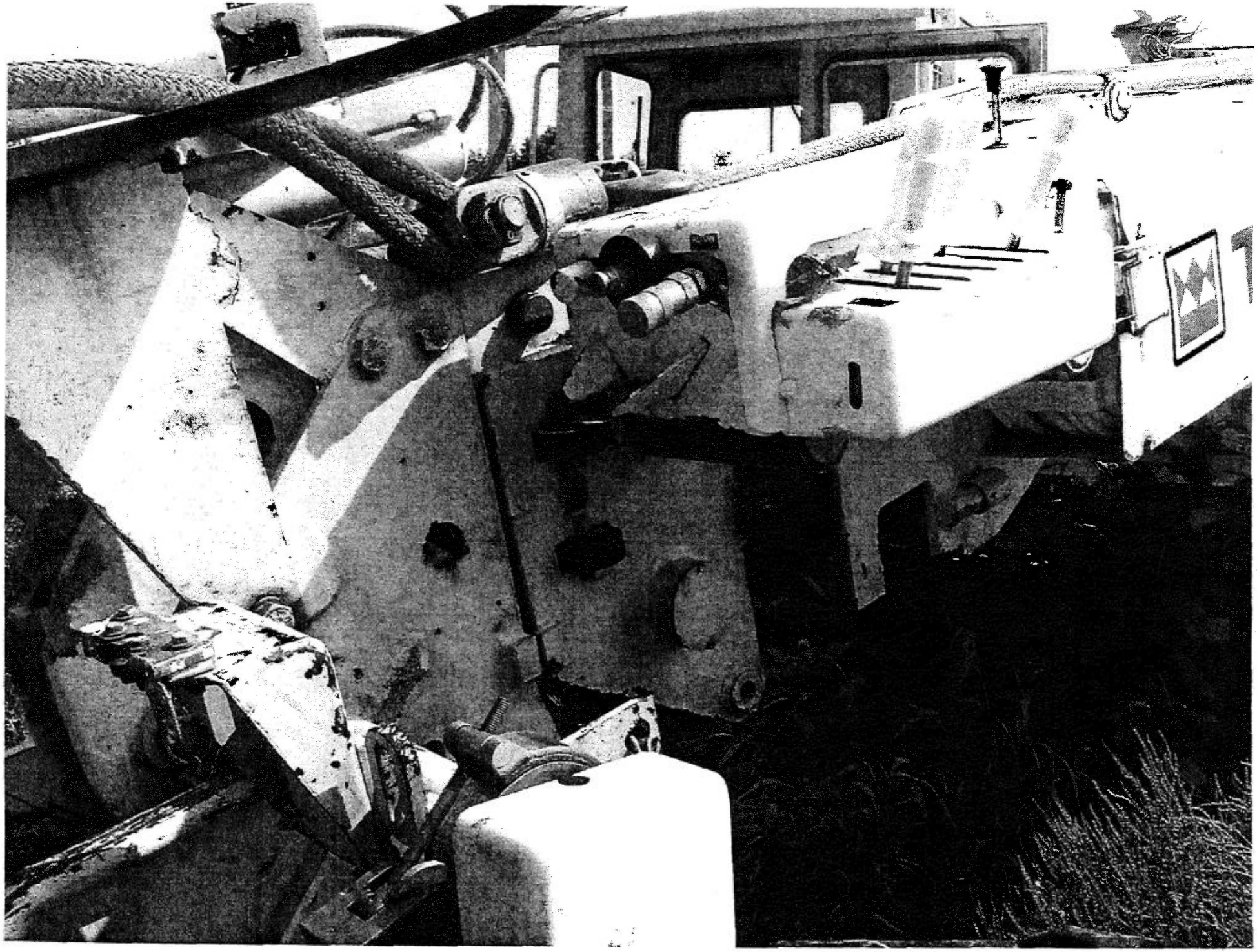
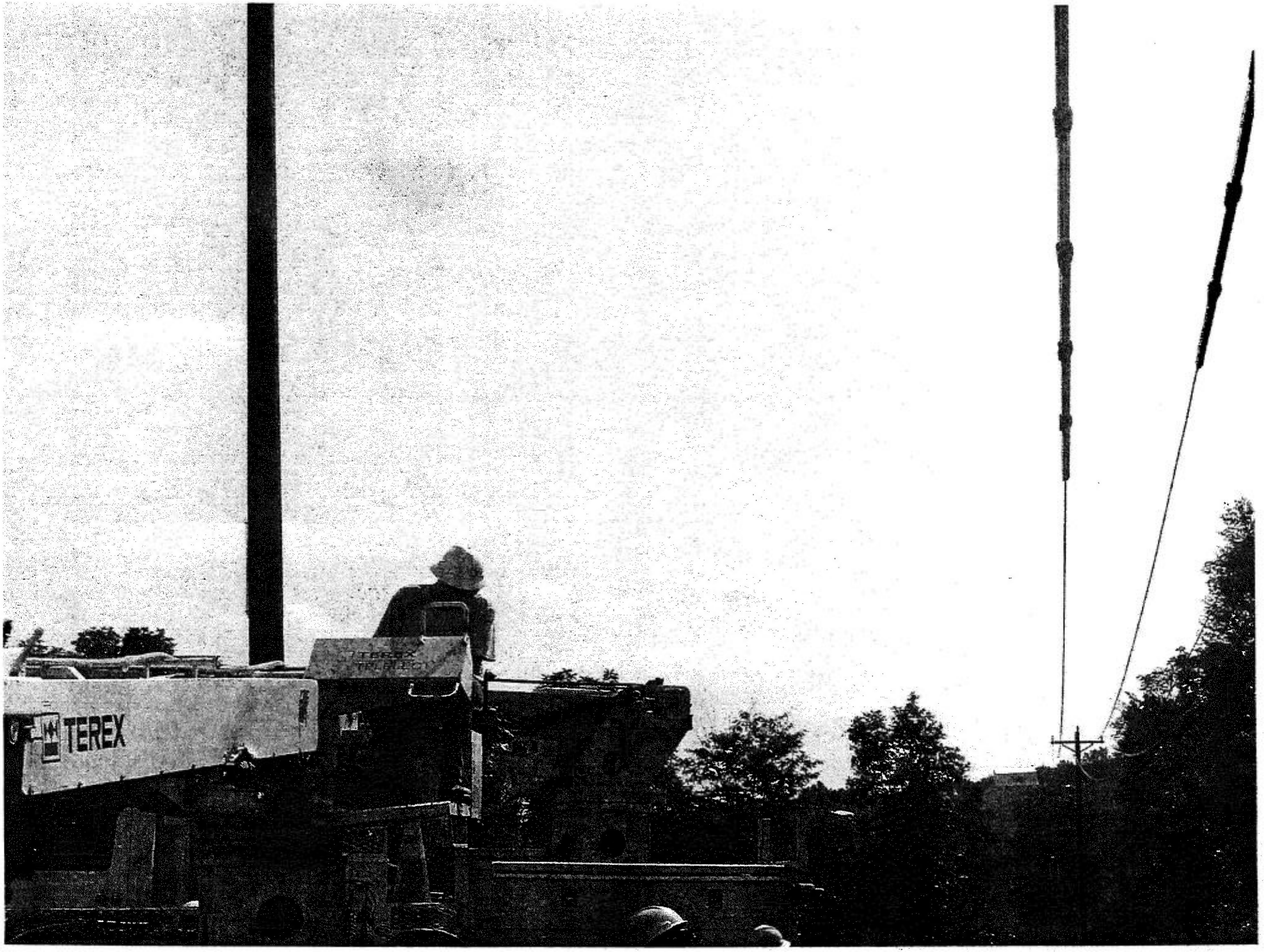



7 FT 1 2 3 4 5


RETURN



FT 11 12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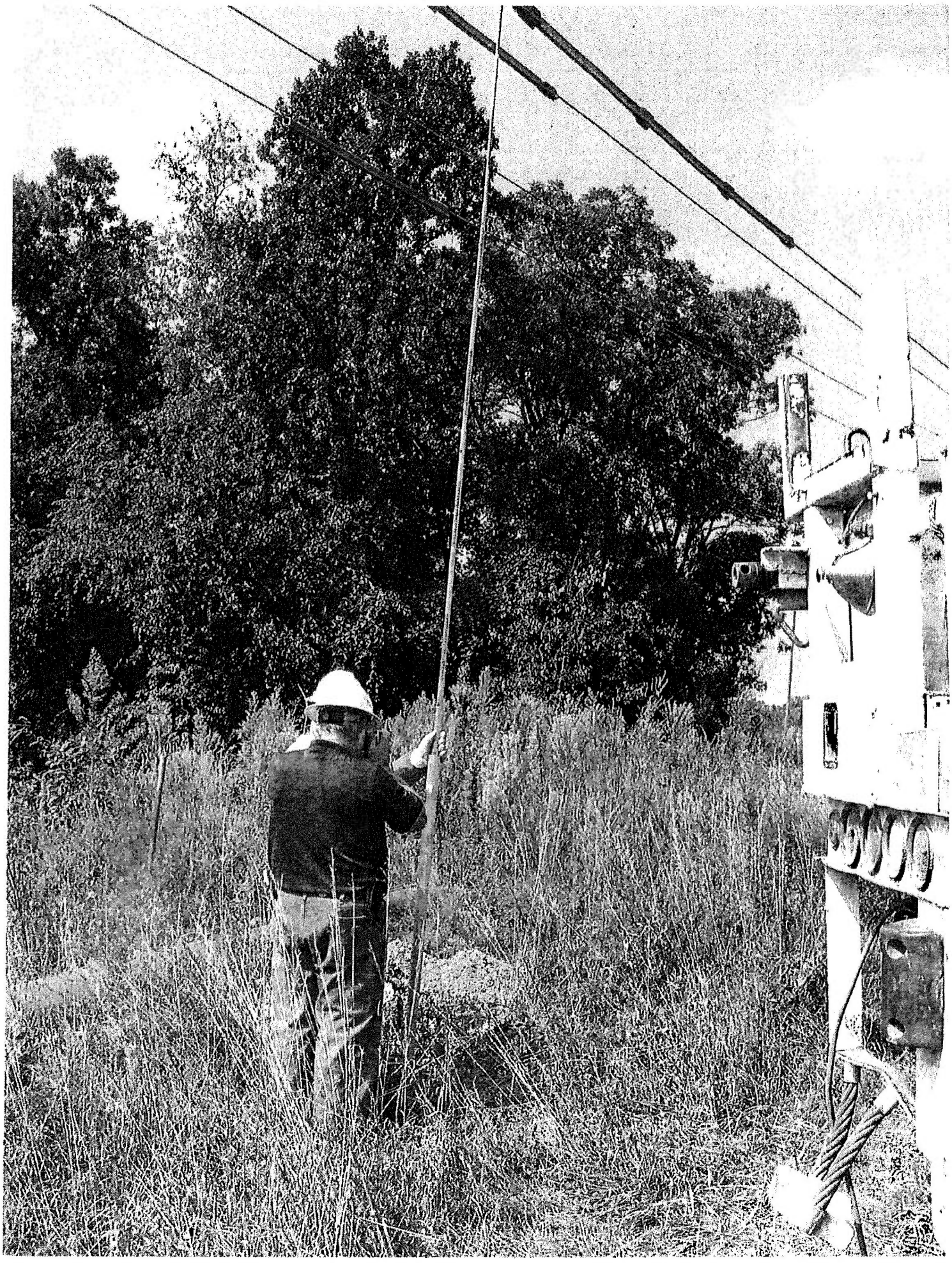
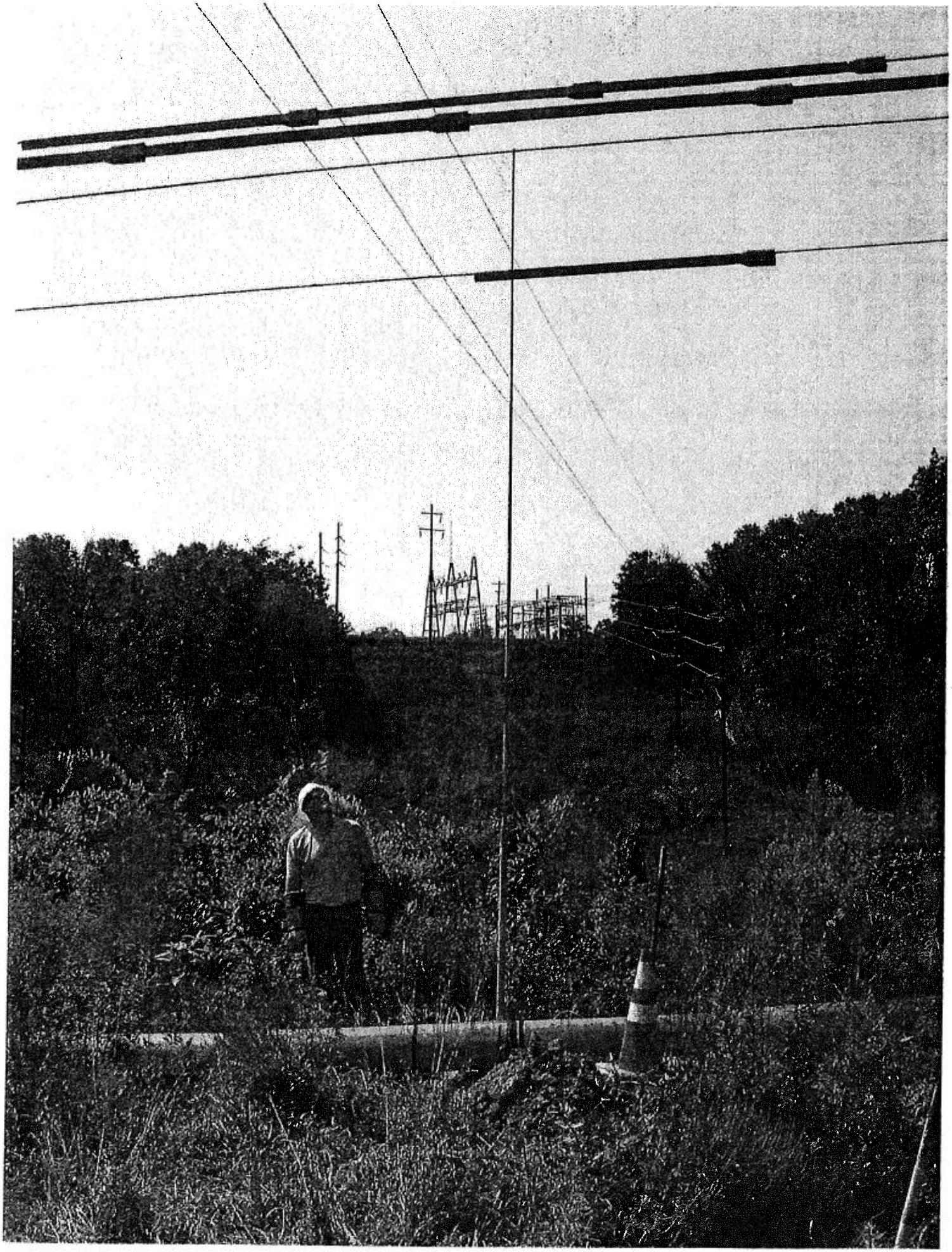
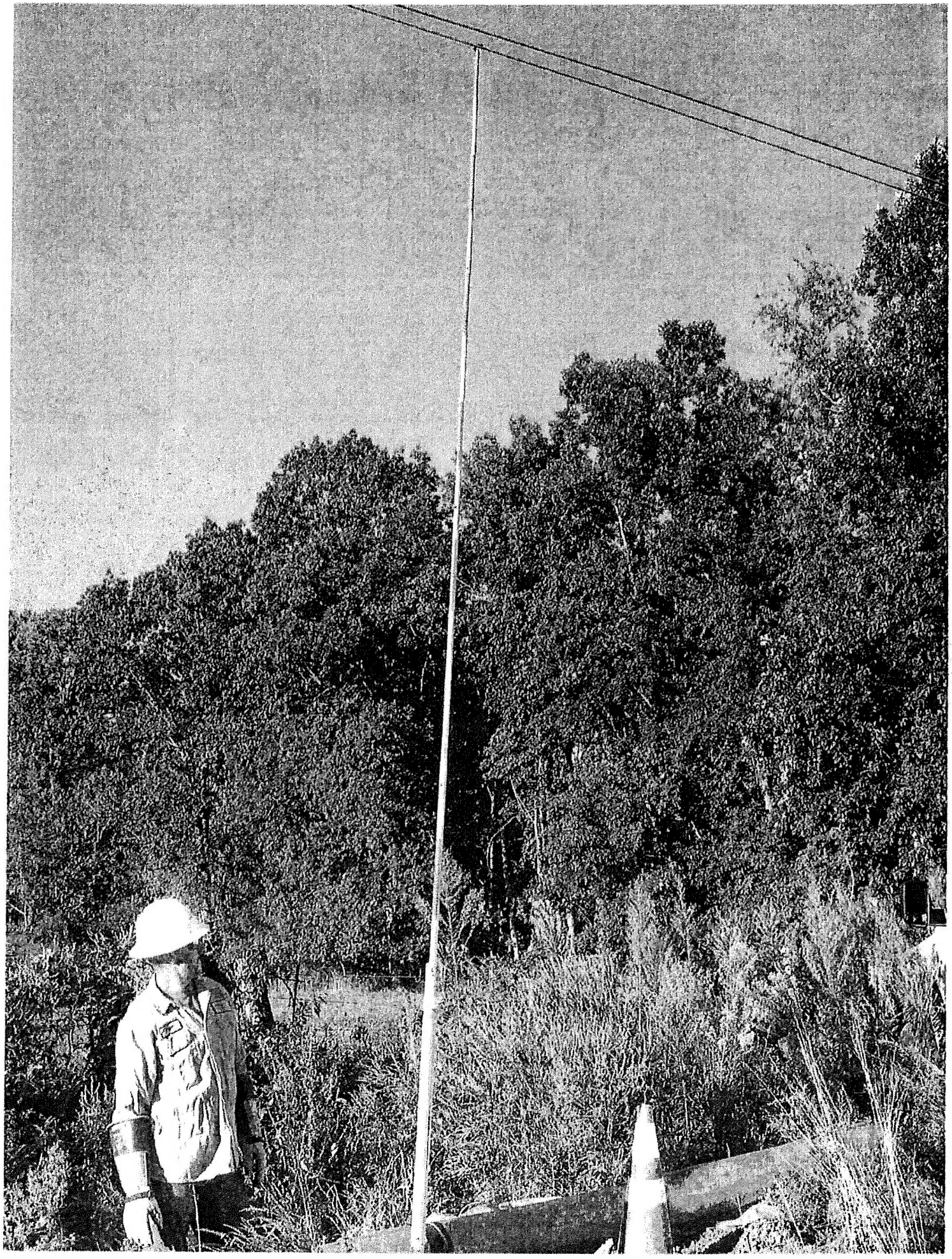
CAUTION
CAUTION

10 11 12 FEET
6 7 8 9


DANGER







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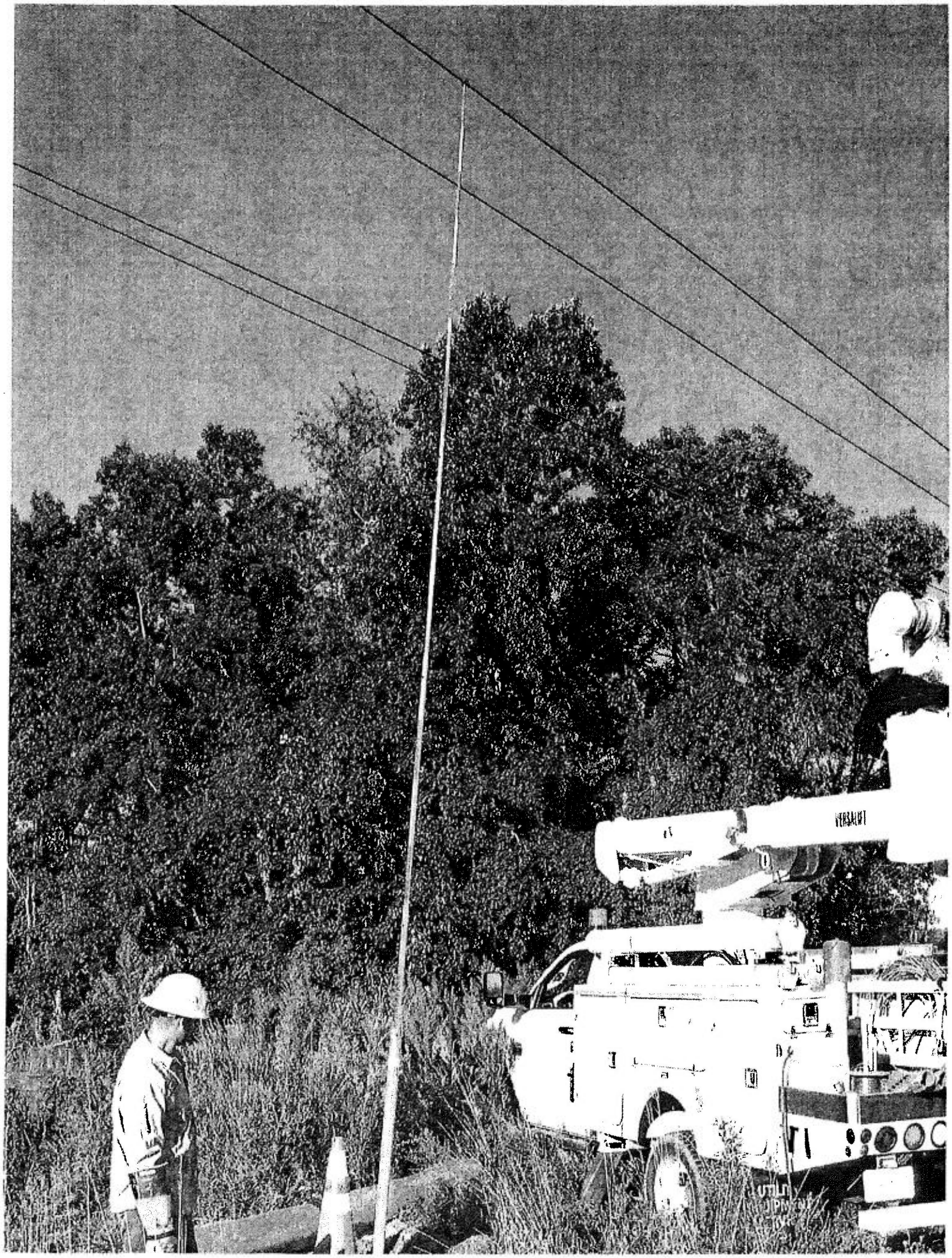
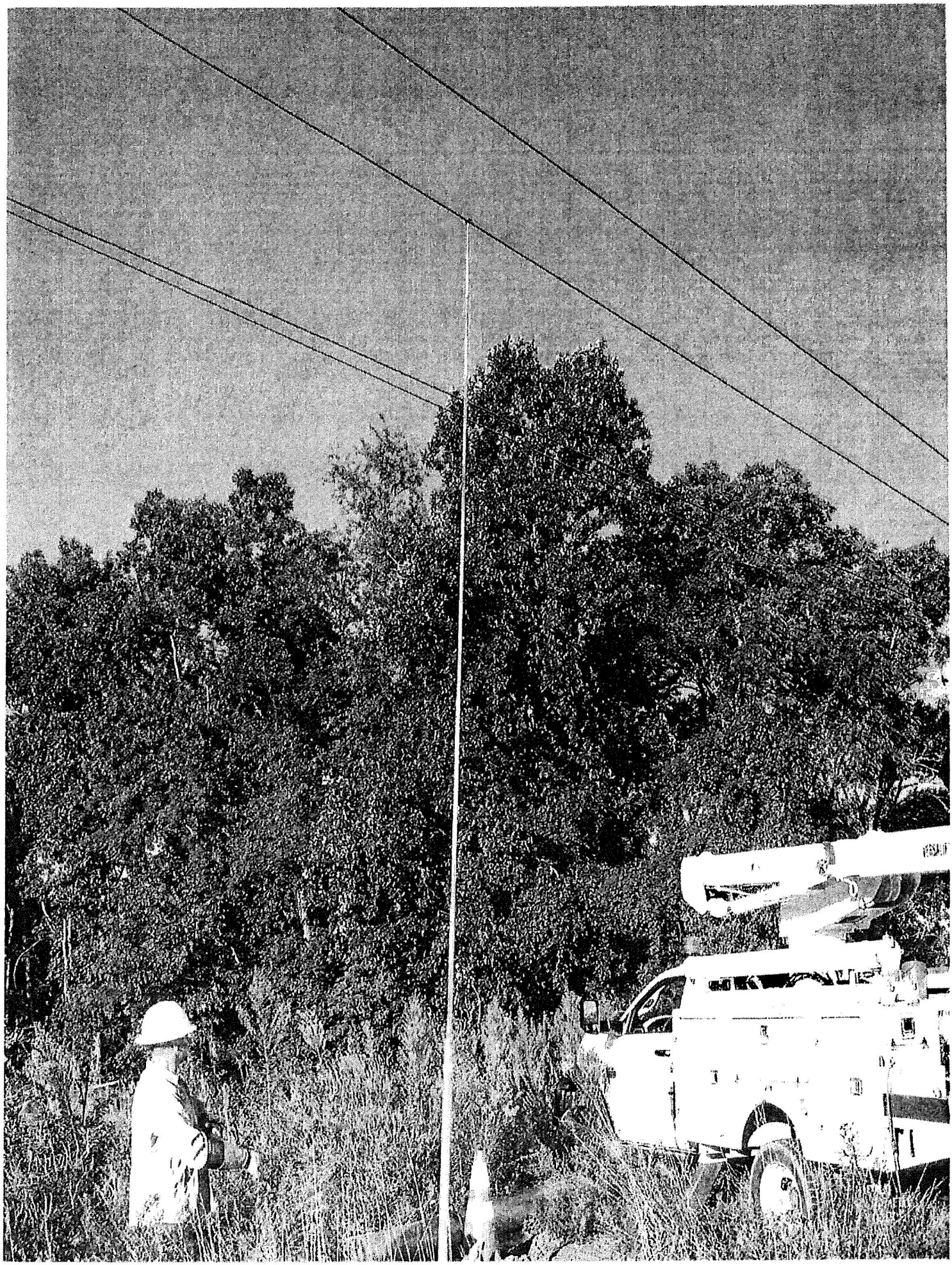


DANGER
JOB BRIEFING
www.owenelectric.co



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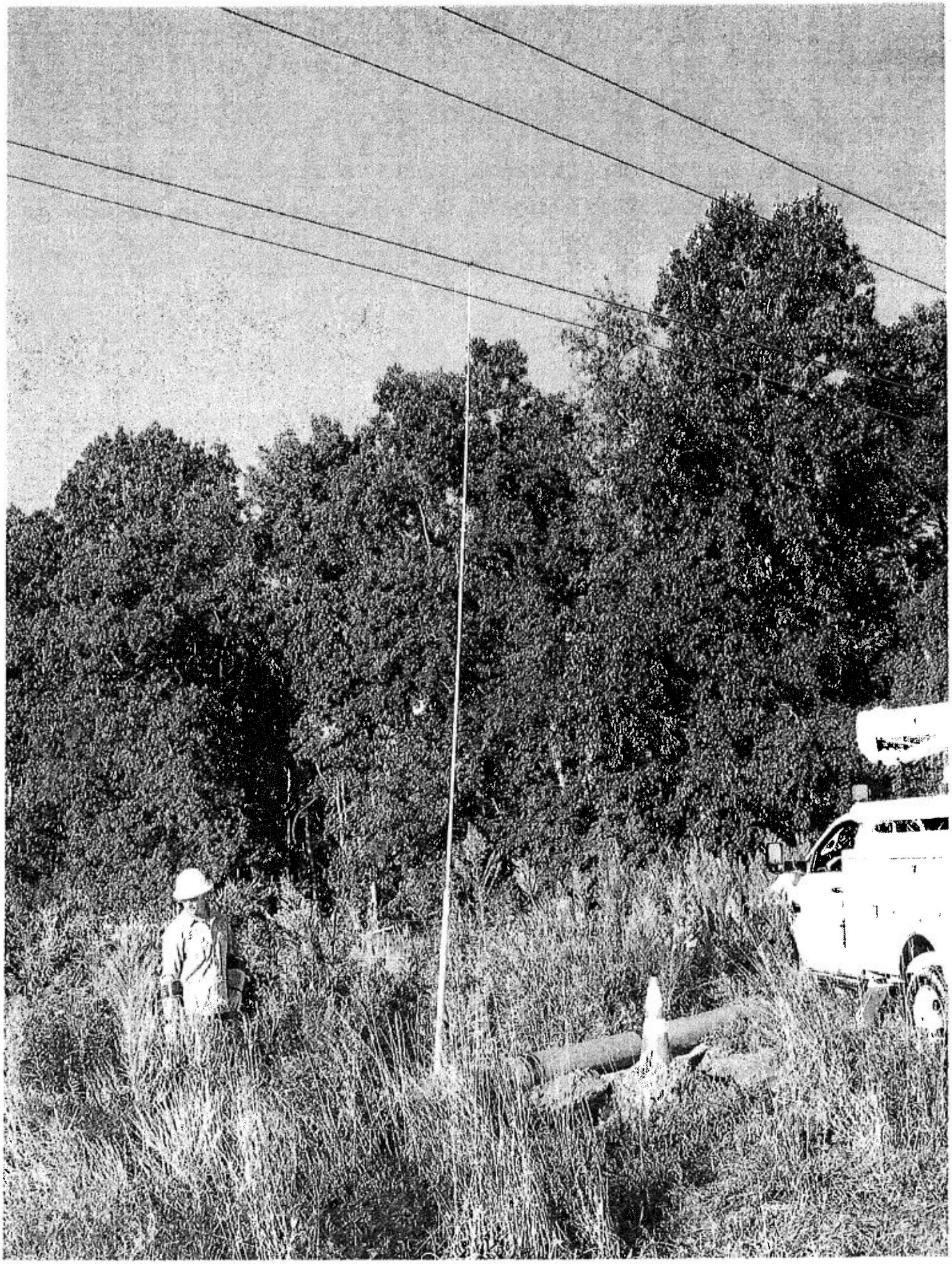
OWEN Electric
MODEL NUMBER
MANUFACTURING DATE



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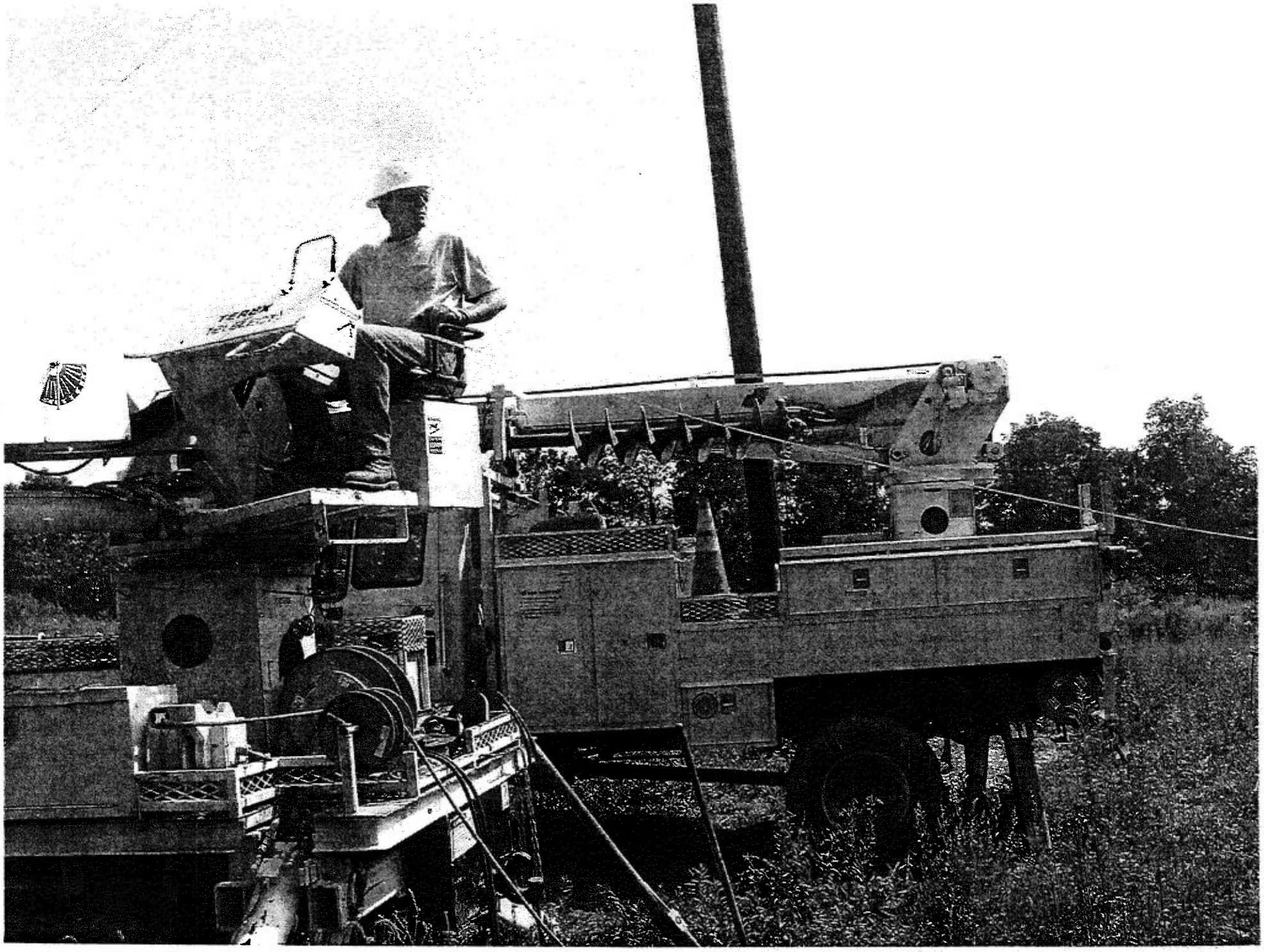

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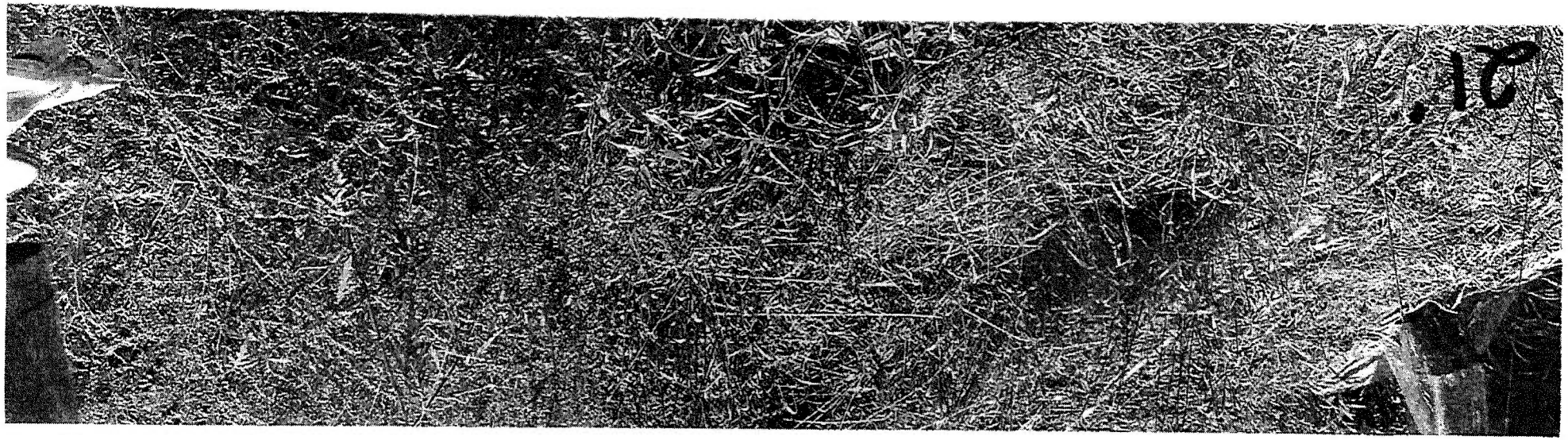

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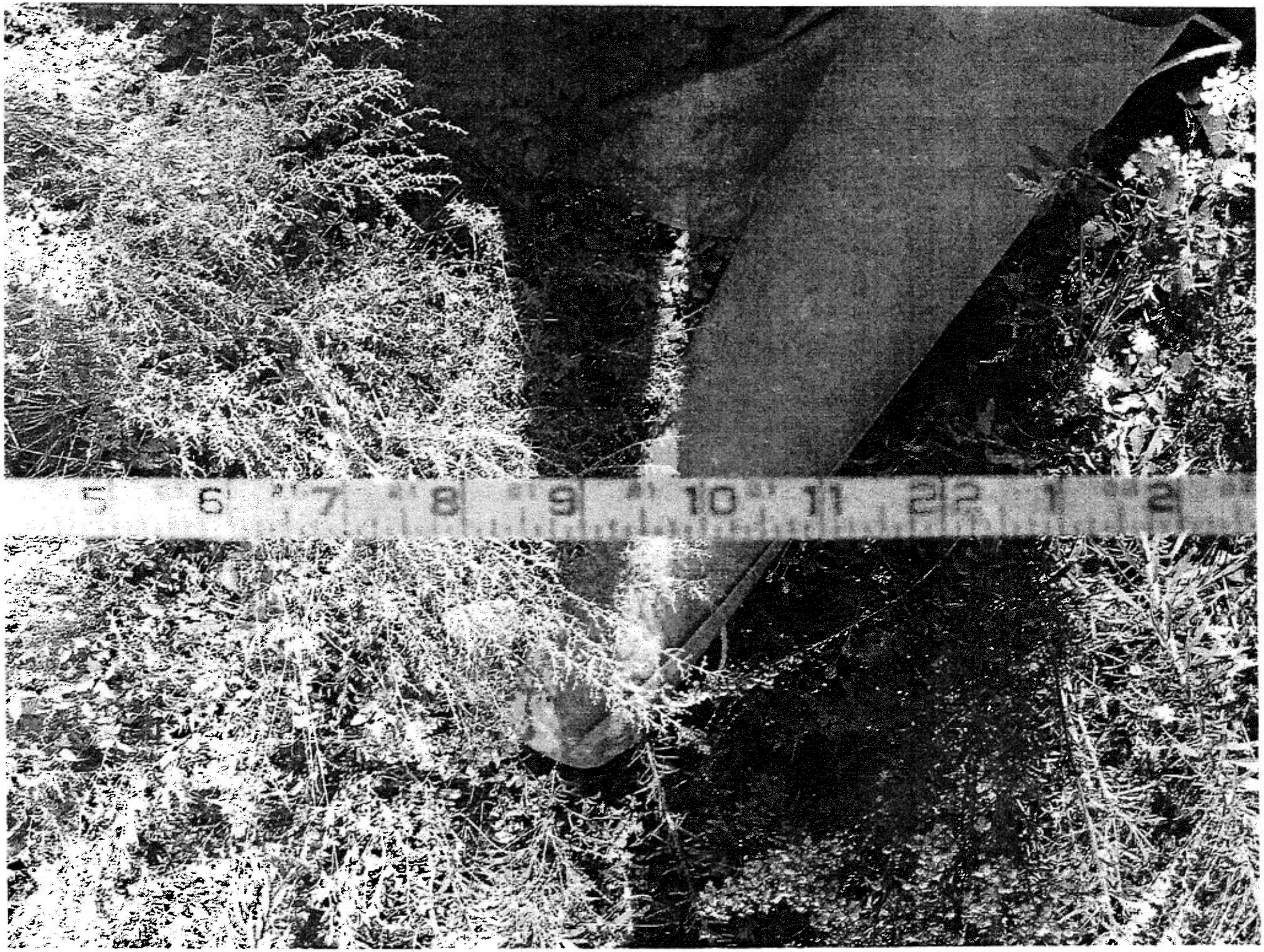
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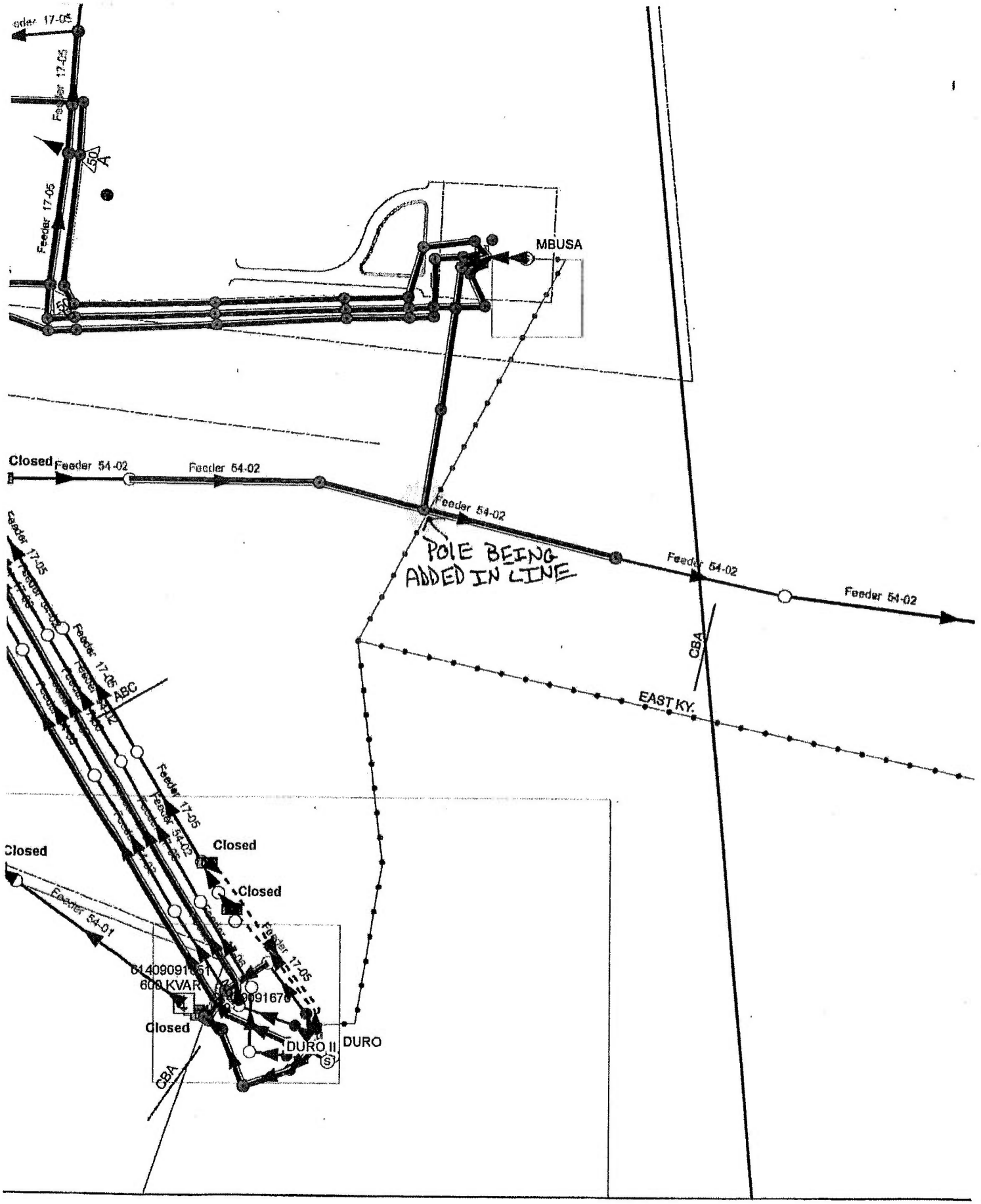

Feeder 17-05
Feeder 17-05
Feeder 17-05
MBUSA
Closed
Feeder 54-02
Feeder 54-02
Feeder 54-02
POLE BEING ADDED IN LINE
Feeder 54-02
Feeder 54-02
CBA
EAST KY.
Feeder 17-05
ABC
Feeder 17-05
Feeder 54-02
Closed
Closed
Closed
Feeder 54-01
Feeder 17-05
Closed
DURO II
DURO
CBA

OUTAGE TICKET

Outage Name **2012-09-06-0082** Dispatched by **kmiller**

Crew Responsible: D.CLEMONS

Outage Start Time: 09/06/12 11:40:07

Outage End Time: 09/06/12 11:47:25

Outage Duration: 00:07

Location
- Troubled Element: **R1430**
- Outaged Phase: **ABC**
- Device Name: **5402**
- Map Location: **5402**
- SubStation: **#0 - DURO II**
- Feeder: **- 5402**

Cause
- Status: **Device Restored**
- Verified Cause:
- Action: **SCADA Closed on R1430**

Customers
- Priority: **1**
- Calls Received: **16**
- Initially Out: **583**
- Restored: **583**

Outage Cause Codes
- What Is Out **Substation OCR**
- Cause **Vehicle/Machinery**
- Equipment Failure **None**
- Outage Type **Equipment/Installation**

Remarks

09/06/12 11:48:19
D.CLEMONS assigned to outage.

OWEN ELECTRIC COOPERATIVE
JOB BRIEFING COMPLIANCE CHECKLIST

JO # / WO#: 303735 | LOC #:

TRUCK # (s):. 934, 861, 860, 892, Track Digger C 849, 876

	ARE YOU IN COMPLIANCE?			
	YES	NO	N/A	COMMENT
1. Job briefing occurs at beginning of each new job.	✓			
2. Job briefing occurs if significant changes in work occur.	✓			
3. More extensive briefing is conducted if work is complicated, particularly hazardous, or employees cannot be expected to recognize and avoid the hazards of the job.	✓			
4. Job briefing contains at least: A. The hazards associated with the job.	✓			
B. Work procedures involved.	✓			
C. Special precautions.	✓			
D. Energy source controls.	✓			
E. PPE requirements.	✓			
5. Voltage ☑ 7,200 ☐ 14,400 ☐ Other *(specify)*	✓			

REMINDERS

- ☐ Direction of Feed
- ☐ Non-Reclose Operation (Lockout/Tagout)
- ☐ De-energize Location
- ☐ De-energize Lines: Tested and Grounded
- ☐ U/G Facilities Located
- ☐ Safety Check on Vehicle(s)
- ☐ Body Belt, Safety Strap and Climbers
- ☑ Traffic Warning Devices
- ☐ Rubber Gloves/Sleeves
- ☐ Rubber Cover-up Goods
- ☐ Check Poles/Structures
- ☐ Guarding of Work Area

Safety Concerns and Suggestions:

SIGNATURE OF PERSON IN CHARGE

9/6/12 DATE

8:00 am/pm TIME

SIGNATURES OF ALL PERSONS ATTENDING JOB BRIEFING

Doug Clemons
T. J.
Simon Peters
B. Collins
R Von Bokern

REVISED 1/7/09

OWEN ELECTRIC COOPERATIVE
JOB BRIEFING COMPLIANCE CHECKLIST

JO # / WO#: 303735 | LOC #:

TRUCK # (s):. 861, 860, 834, 819 | ARE YOU IN COMPLIANCE?

	YES	NO	N/A	COMMENT
1. Job briefing occurs at beginning of each new job.	✓			
2. Job briefing occurs if significant changes in work occur.	✓			
3. More extensive briefing is conducted if work is complicated, particularly hazardous, or employees cannot be expected to recognize and avoid the hazards of the job.	✓			
4. Job briefing contains at least: A. The hazards associated with the job.	✓			
B. Work procedures involved.	✓			
C. Special precautions.	✓			
D. Energy source controls.	✓			
E. PPE requirements	✓			
5. Voltage ☑ 7,200 ☐ 14,400 ☐ Other *(specify)*	✓			

REMINDERS

- ☑ Direction of Feed
- ☑ Non-Reclose Operation (Lockout/Tagout)
- ☑ De-energize Location
- ☑ De-energize Lines: Tested and Grounded
- ☑ U/G Facilities Located
- ☑ Safety Check on Vehicle(s)
- ☑ Body Belt, Safety Strap and Climbers
- ☑ Traffic Warning Devices
- ☑ Rubber Gloves/Sleeves
- ☑ Rubber Cover-up Goods
- ☑ Check Poles/Structures
- ☑ Guarding of Work Area

Safety Concerns and Suggestions:

[signature] — SIGNATURE OF PERSON IN CHARGE

9/5/17 — DATE

_____ am/pm — TIME

SIGNATURES OF ALL PERSONS ATTENDING JOB BRIEFING

[signature]

[signature]

[signature]

[signature]

[signature]

[signature]

REVISED 1/7/09

TEST REPORT # 20

Torco TESTING SERVICES, INC.

P.O. Box 1717 - Louisville, KY 40201
(502) 561-0506
Toll Free 888-540-0065
Website: torcotesting.com

CUSTOMER Owen Electric STATE Ky TECH. Simpson/Inaez DATE 7-11-12 TIME 8:40 AM PM

TRUCK # 849 S/N [redacted] MODEL C4045 MDL-Commander EMP 78 °F R.H. 41 %

AC DIELECTRIC TEST
ANSI/SIA A92.2 SECTION 5.4.3

AREA TESTED	APPLIED VOLTAGE KVAC	TEST TIME MIN.	LEAKAGE MILLIAMP	RESULTS
BASKET SHAFT TO LOWER BOOM				
LOWER BOOM INSERT				
BASKET TO CHASSIS				
EXTENSIBLE BOOM	69	3	.110	PASSED
BASKET LINER	N/A		[redacted]	
HYDRAULIC OIL	36.5	[redacted]		PASSED
HOT STICKS			DIELECTRIC	
OTHER				

COMMENTS ON DIELECTRIC TEST

STRUCTURAL ANALYSIS
ANSI/SIA A92.2 8.2.4

VT – Visual Inspection
ULT – Ultrasonic Test
MT – Magnetic Particle Testing

AREA TESTED	RESULTS	AREA TESTED	RESULTS
Accessible outrigger welds	VT	Accessible outrigger pins	ULT
Lower pedestal welds	VT	Anchor bolts	—
Accessible cylinder block welds	VT/MT	Accessible turntable bolts	ULT
Welds at elbow	—	Lower boom hinge pin	ULT
Welds at basket area	—	Accessible cylinder pins	ULT
Welds on head of boom	VT	Upper boom hinge pin	—
Boom support	VT	Basket shaft	—
Auger support brace	VT	Auger hanger pins	ULT
Winch line hooks	VT	Pintle hook	VT
Turret welds	VT/MT		
NONDESTRUCTIVE FIBERGLASS ANALYSIS			RESULTS

COMMENTS ON STRUCTURAL ANALYSIS

① Auger Pull up Strap Showing wear
② Hoses at Cat track Worn Badly
③ Bull + Pinion Gear Dry

TEST REPORT # 116

Torco TESTING SERVICES, INC.

P.O. Box 1717 - Louisville, KY 40201
(502) 561-0506
Toll Free 888-540-0065
Website: torcotesting.com

CUSTOMER Owen Electric STATE KY TECH. Simpson/Maez DATE 7-10-12 TIME 2:40 AM (PM)

TRUCK # 855 S/N [redacted] MODEL L4045 Terex TEMP 91 °F R.H. 22 %

AC DIELECTRIC TEST
ANSI/SIA A92.2 SECTION 5.4.3

AREA TESTED	APPLIED VOLTAGE KVAC	TEST TIME MIN.	LEAKAGE MILLIAMP	RESULTS
BASKET SHAFT TO LOWER BOOM				
LOWER BOOM INSERT				
BASKET TO CHASSIS				
EXTENSIBLE BOOM	69	3	.450	PASSED
BASKET LINER	35	1	[redacted]	PASSED
HYDRAULIC OIL	36.5	[redacted]		PASSED
HOT STICKS		DIELECTRIC		
OTHER				

COMMENTS ON DIELECTRIC TEST

STRUCTURAL ANALYSIS
ANSI/SIA A92.2 8.2.4

VT – Visual Inspection
ULT – Ultrasonic Test
MT – Magnetic Particle Testing

AREA TESTED	RESULTS	AREA TESTED	RESULTS
Accessible outrigger welds		Accessible outrigger pins	
Lower pedestal welds		Anchor bolts	
Accessible cylinder block welds		Accessible turntable bolts	
Welds at elbow		Lower boom hinge pin	
Welds at basket area		Accessible cylinder pins	
Welds on head of boom		Upper boom hinge pin	
Boom support		Basket shaft	
Auger support brace		Auger hanger pins	
Winch line hooks		Pintle hook	
Turret welds			

NONDESTRUCTIVE FIBERGLASS ANALYSIS	RESULTS

COMMENTS ON STRUCTURAL ANALYSIS

Attachment C

Utility Additional Information

Allen A Wallace

The trackdigger was takin over the hill sinc
we had it and since it was so muddy. We was
using it to cover the line so we could set
the pole. We also put protective cover on th
pole itself. The trackdigger was setup besi
the digger truck with both trucks groun
to the screw in ground. I (Andy) had all my
PPE on and was ready to guide pole up int
digger head on truck. In the mean time Sim
was going up in bucket on trackdigger. De
was on the digger truck and Charlie an
JJ was back behind me out of my view. Ch
was on the trackdigger working the controls fi
Simon, Simon had put 5 or 6 guys on the
line when the contact happened. Evidently he
swung the phase into the boom and, with
being in the 1st stage it energized the truc
and the adjascent truck. JJ must have
been leaning on the digger for the contact
burn to occur. He immediately screamed an
began rolling on the ground and then runni
I caught up to him and he said he was ok
but I insisted he go to Hospital

I was at the substation counting material on the job trailer and decided to walk down the hill and see if the crew working on setting the pole needed anything. After walking down the hill I spoke to one of the members of the crew and then started back up the hill. At that time I heard an arc then ran back down the hill. I saw that the crew member that was hurt was still responsive so I instructed Charlie and Andy to get him in the truck. While I made my way to the truck I phoned Orman because he was the first number I came to in my phone and filled him in on what was going on. Then I drove the injured crew member to the hospital.

Alan Brann
10/4/12

I put the screw in grounded in and grounded the digger truck. Simon was putting on guts and got shit to b phase when this happened Danny and I was up in the belly of the digger. Chris was on the track machine alan, andy and James were on the ground James was by the back of the digger when he got into b phase James started screaming and running & ran and caught him & put him in the truck & Alan took him to the hospital

Sarah Collins

Chris Dempsey

(1)

On September 6th 2012, I backed the track machine over the hill to the right hand side of the MBUSA substation so we could use the bucket on it to cover the 7200 three phase line that we were going to set the pole in. Andy M. spotted me while I was backing. When I got in position, he stopped me and we set up the machine. While the stiff legs were being lowered, I pulled out the grounding cable completely off the reel and gave the head of the cable to Simon P. and he placed it on the existing screw in ground rod that the line truck was already grounded to. I climbed up on the machine and rotated the boom around and lowered it down so I could prepare the bucket for Simon to get in and go up and cover the line. After the bucket was readied, and Simon got his PPE and harness, Simon asked me to control the boom and move him into position from the digger derrick seat. With the smallness of the bucket and the unhandiness of the bucket hand controls, and also with having all the line hoses in the bucket with him, he thought

operating the boom from the seat would be better. I told him that was fine and I would do that for him. I raised Simon up and he put the line hoses on the neutral first. When he was done there, I relocated him so that he could cover the ~~plase~~ phase closest to the machine. While he was doing this I noticed that Alan B. was located to my left ~~on the~~ standing on the ground. Donny C and Charlie C were on the ~~the~~ line truck which was to the left of the track machine. Donny was in the seat and Charlie was standing in the bed of the truck. Andy M. was standing at the butt of the pole we were about to set wearing all his PPE to be able to guide the pole when we set it in line. ~~Allen~~ James was located on the opposite side of the line truck out of my line of sight. When Simon was finished covering the closest phase I noticed the line sagged down when the proper amount of line hoses were installed. I told him that I was going to lift him up and over ~~the~~

Covered phase for him to be able to reach and cover B phase. He said that would be fine so I lifted him up and over and got him into position. He covered B phase and was in the process of installing the last line hose and the swayed over and contacted the boom energising both trucks. The phase to ground contact locked out the circuit due to it being in single shot at the substation. I yelled at Simon and asked if he was ok and then I heard Jamer screaming and saw him running from the line truck. This is when we realized Jamer had suffered a contact burn. I got Simon down and Alan rushed Jamer to the hospital.

9-6-12

On the day of the accident the first thing ~~was~~ at the job site Allan had a job briefing with everyone at the job. My crews job was to set two poles going down the hill from the substation. We backed the digger truck over the hill and set the first pole. I then had Simon back the digger truck further down the hill and put him in position to dig the hole for the pole we were to set in line. I then walked down line to line Chris in ~~place~~ line so that Simon ~~he~~ could start digging the hole.

I talked to Orman for a brief moment then walked back toward the trucks, at this time they had brought the pole to be set down the hill with the track machine. I then grounded the pole, and when Simon was done digging the hole Chris, Simon, Charlie, and Andy and myself met up by the bucket to load the hoses and other material on the track machine, to bring it back down the hill to cover the line. At this point we again reviewed whom would be doing each job and what PPE would be needed boots, rubber gloves, sleeves, long sleeve shirt glasses ect. I then verified with Lucas which feeder this was and had system operation (Kevin miller) place the feeder in non reclose. We went back down the hill, I helped put the pole guards on the pole. I then got up on the digger, and ~~helped~~ me

and Andy moved the pole into position. Simon then started up to cover the line. Before we moved the pole or Simon went up I noticed that both units were ground. Andy unhooked the pole and I moved the digger out of way of the line.
At this point I was watching Simon and Instructing him on how much cover I needed to set the pole When the ~~#~~ Contact occured Andy was on the ground to my left I was in the seat on the digger, Charlie was behind me on the digger, Simon was operating ~~and~~ the bucket on the track machine and covering the line, Chris was sitting on the track machine. I heard the ~~sou~~ noise from the contact and right after the noise stopped is when I heard James running away from the digger truck, from my left. I yelled at Simon in the bucket, Chris yelled at me if I was alright, then I saw Charlie running to get James. Simon brought the track machine boom down and everyone went to help James. They took him to the top of the hill into a pickup driven by Allan. I then checked make sure everyone and everthing was clear, called ~~de~~ system operator asked if line was dead, Kevin said yes, I said We got a truck into the line, I then told everyone was clear he coulol reenergize. This is my account best to my Knowledge

Dan Clemons 9-10-12

JAMES Juett

9/6/12 We got to the job and Had a Tail gate. Everyone Knew what was going on Then I Turned Over a Truck (#34) about 9:30 am. Tony Came got me We went to St E. For a Drug Test. We got back and Danny's Crew already had the hole dug Then They Move the trace machine down to Cover the line and was going to set the Pole with the digger. Danny asked Andy to Come help set the Pole he had all his PPE I Walked over the hill to See if their was any thing I could do to help and touched the truck and Zap!

On Sept. 6 2012 upon arriving at MBUSA jobsite Alan Brann conducted our Job Briefing. After the briefing was conducted myself, Danny C. Chris D. and Charlie C. were going to work on setting 12 poles. After setting the first pole, we then moved the digger truck down the field to set a pole in line with the three phase being put in single shot. I got on the digger and dug the hole and in the mean time the track machine was used to drag the pole that was going to be set, so we could set it with the digger truck. I was then told to get my PPE and go up in the bucket on the track machine, and cover up the three phase I took the ground for the track machine and connected it to the screw in ground ro that was located behind the digger truck. I went up and put a gut on the neutral, and then covered up A Ø. After covering A Ø I then started to cover B Ø. I had I ged more gut to put on B Ø and while puttin it on that is when B Ø made contact with th boom of the track machine. At that moment I had a flash and a loud ark about 3 feet

over →

from my face, and also heard a loud scream,
I then turned around and seen James J.
running away from the truck. I was brough
back down to the ground and then found ou
what happened after that. Then I were told
to suspend work at that Job.

Simon Peters
Journeyman Lineman
Owen Electric.

Kingsolver, Steve (PSC)

From: Tony Dempsey <tdempsey@owenelectric.com>
Sent: Monday, September 17, 2012 3:56 PM
To: Kingsolver, Steve (PSC)
Subject: RE: Question on 9-6-12 Accident

Steve,

Our definition of the "Electricity insulated Foot Protection" is the Servus brand insulated rubber overshoes that OEC issues to lineworkers.

What OEC defines to be the Immediate Work Zone, as applied to this incident, is that which involves the setting of the pole.

To my understanding, the only employee that was wearing the protective footwear at the time of the incident was the employee that was going to be handling the pole as it was being set.
In this case, the pole had never been hooked to the winch line of the digger truck to initiate the process of setting the pole, therefore, rule 620, d, (5) was not applicable in this situation.

Thanks,

Tony Dempsey
Manager of Safety
Owen Electric Cooperative
8205 Hwy 127N, P.O. Box 400
Owenton, KY 40359
Ofc. 502-563-3548
Cell 502-482-6249

Safe By Choice, Not By Chance!

From: Kingsolver, Steve (PSC) [mailto:Steve.Kingsolver@ky.gov]
Sent: Monday, September 17, 2012 12:55 PM
To: Tony Dempsey
Subject: Question on 9-6-12 Accident

Tony,

I will give you a call on this.

Can you give me a definition on "Electricity insulated Foot Protection" and "Immediate Work Zone" as it pertains to this accident?

Was the victim and all of the other employees in the immediate work zone using "Electricity Insulated Foot Protection"?

I am looking at your safety manual (#620-d-5).

The Duro 2 ...EKPC Feeder (4-5-6) reclosing device is manufactured by G&W.
The steady-state, full load rating is 600 amps.
The symmetrical fault current rating is 10,000 amps.
The distribution voltage at this substation is 12.5/7.2 kV

Jim Bridges

The OCR was placed into Single Shot by SCADA at 11:14:37 AM.

STATION	NAME	TYPE	TIME	VALUE	TASKNAME	STATE	COMMAND	EVENTTEXT	TIMETEXT	E
DURO	214REC	Control	09/06/12 11:14:37	0	SCREEN16		1		09/06/2012 11:14:37.000	
DURO	214REC	Status	09/06/12 11:14:43	1		1-SHOT (1)			09/06/2012 11:14:43.000	

I have downloaded the events from the substation OCR control (OCR214 at Duro Substation) for Thursday's electrical contact. It appears as the contact occurred at 09/06/12 11:35:33.608 control time. The control time is about 4 minutes behind my cell phone which is synchronized to the Verizon network, so this event would have occurred at 11:39:33.608, which is in agreement with the SCADA fault target time of 09/06/12 11:40:07 and OCR trip time of 09/06/12 11:40:11. The OCR tripped out in approximately 3 tenths of a second. Fault currents reported was between 617-642 amps.

CO#1176 Date: 09/07/12 Time: 18:02
4-5-6

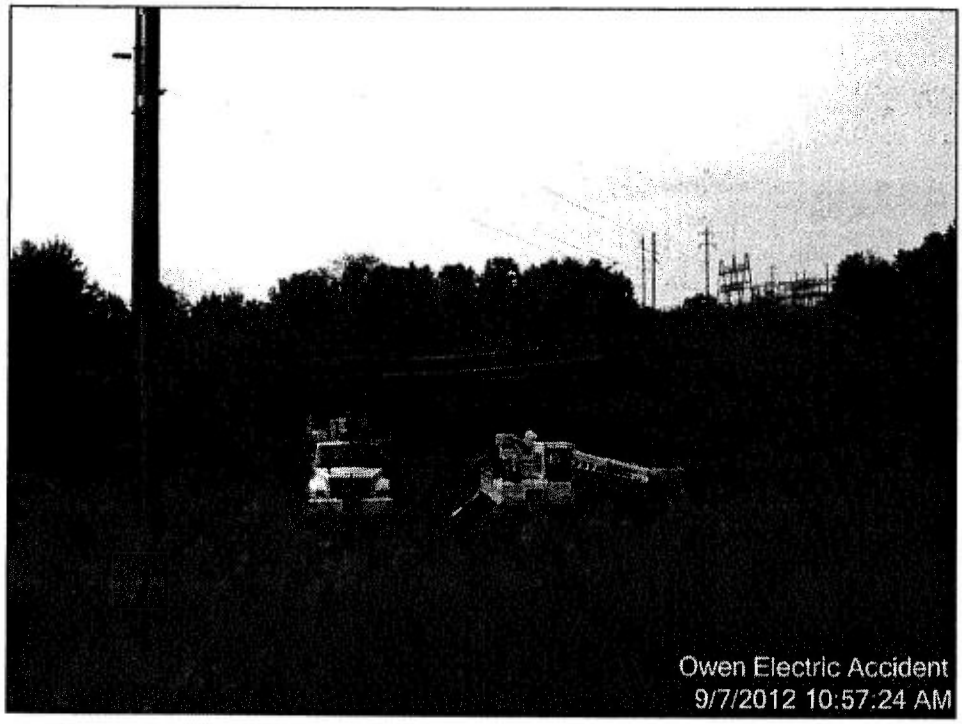
#	DATE	TIME	EVENT	LOCAT	CURR	FREQ	GRP	SHOT	TARGETS
1	09/06/12	11:42:42.951	AG	$$$$$$$	627	60.02	1	3	11000000 00100000
2	09/06/12	11:35:33.904	BG T	$$$$$$$	642	59.98	1	0	11001100 00101010
3	09/06/12	11:35:33.608	BG	$$$$$$$	617	59.98	1	0	11000000 10000000

Please let me know if you have any questions.

Jim Petreshock
Manager of System Operations
Owen Electric Cooperative, Inc.

Attachment D

KPSC Photographs of Accident Site


Owen Electric Accident
9/7/2012 10:57:24 AM

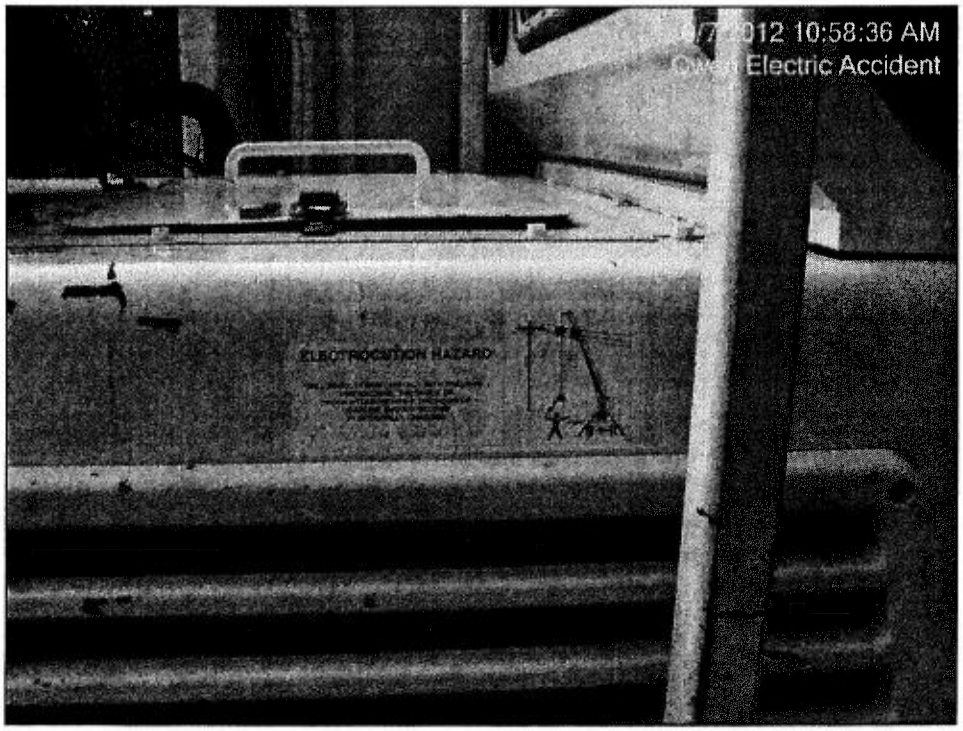
#1


Owen Electric Accident
9/7/2012 10:57:31 AM

#2


Owen Electric Accident
9/7/2012 10:58:21 AM

#3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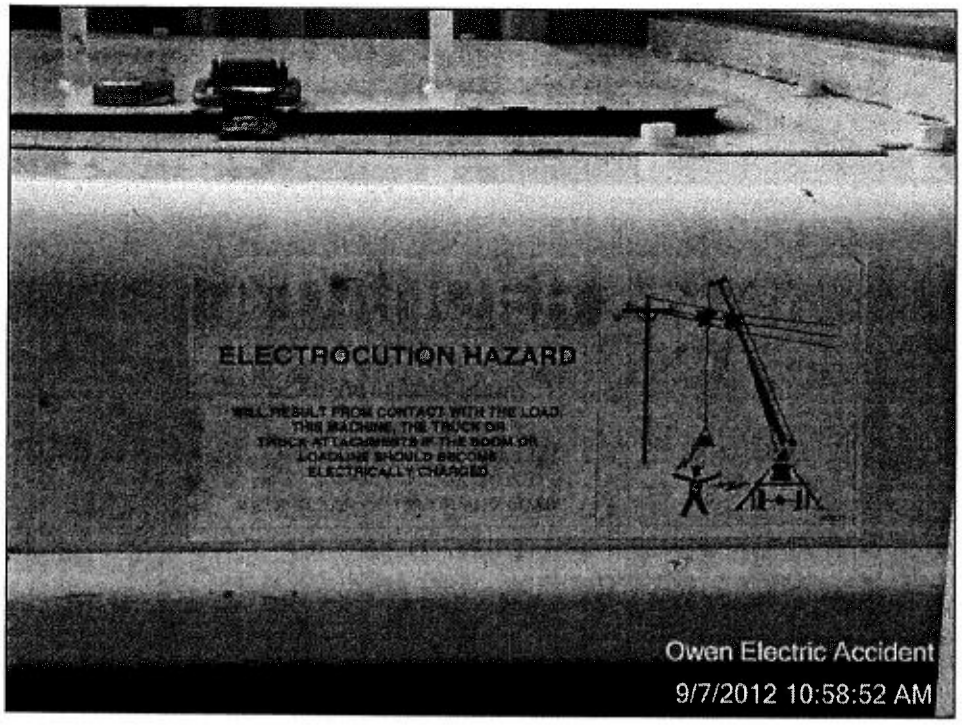
Electric Accident
ELECTROCUTION HAZARD

#4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#5


855
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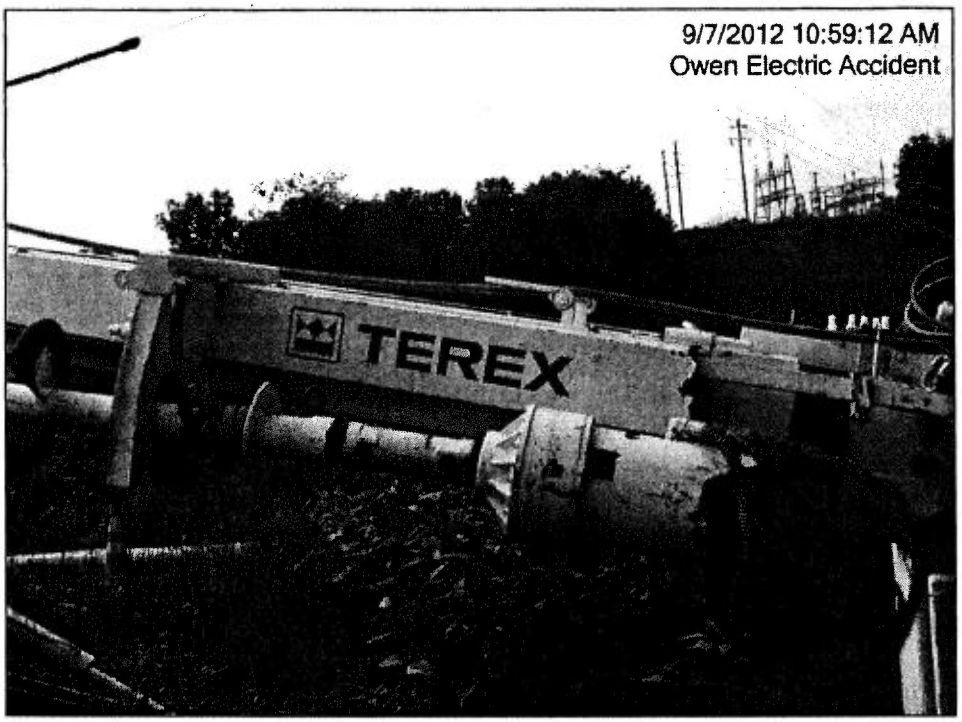
9/7/2012 10:59:01 AM

#6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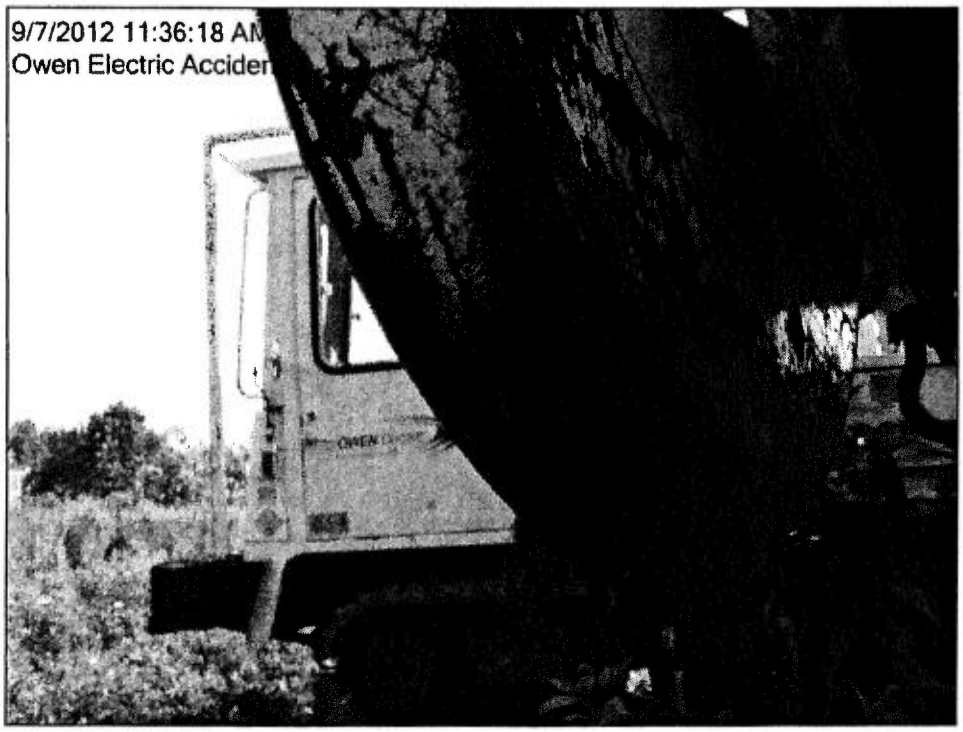
Owen Electric Accident
TEREX

#7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Owen Electric Accident

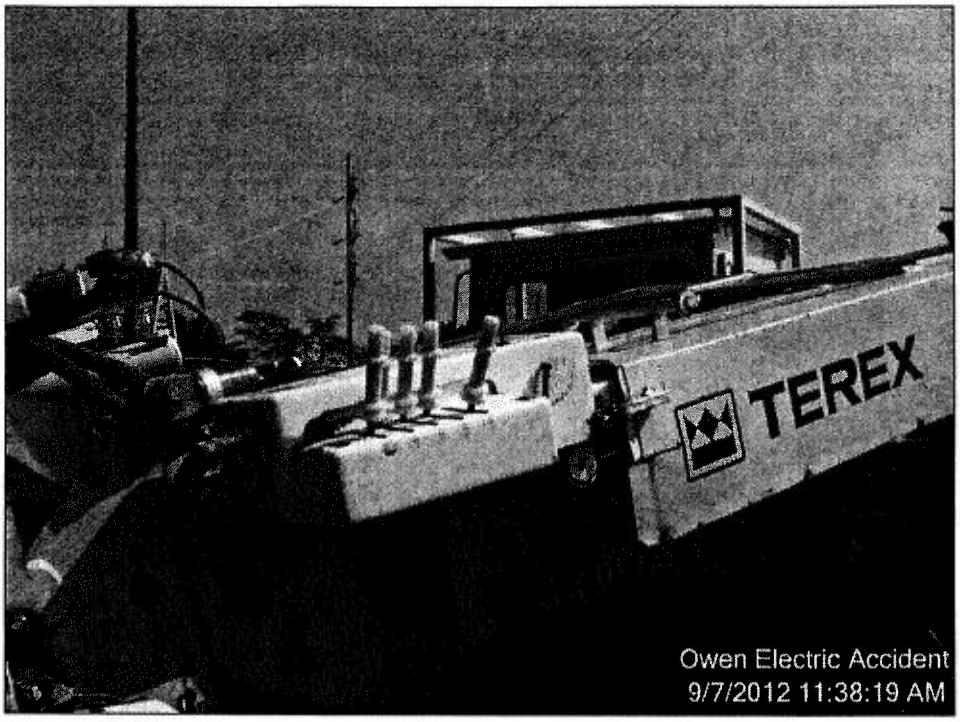
#8


Owen Electric Accident
9/7/2012 11:36:31 AM

#9


Owen Electric Accident
9/7/2012 11:36:47 AM

#10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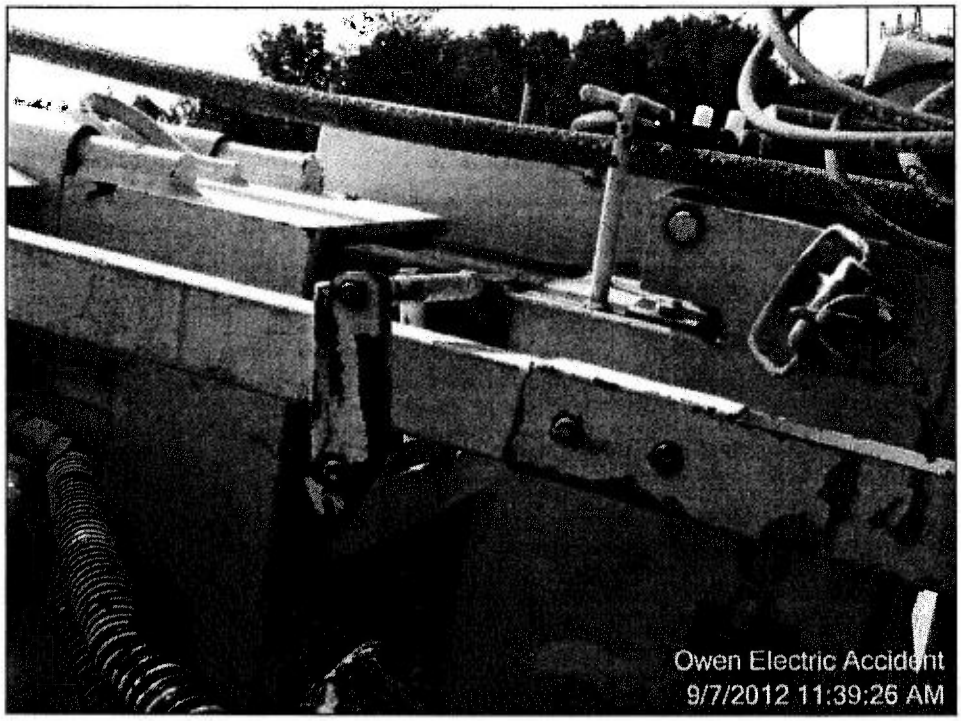
Owen Electric Accident
9/7/2012 11:38:19 AM

#11


9/7/2012 11:38:30 AM
Owen Electric Accident

#12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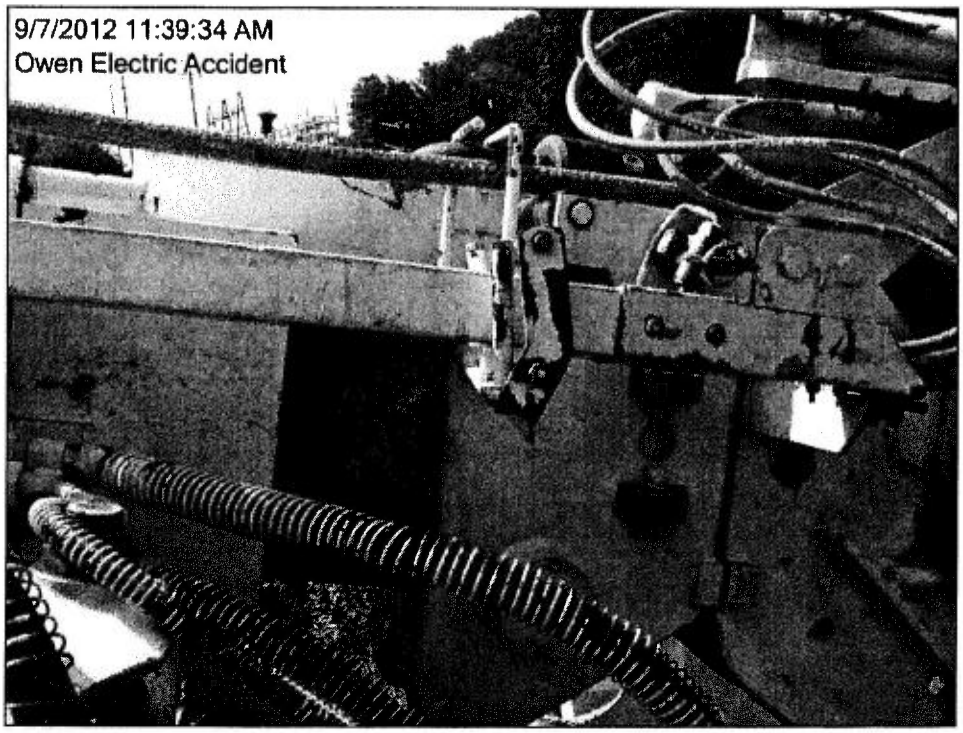
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Owen Electric Accident

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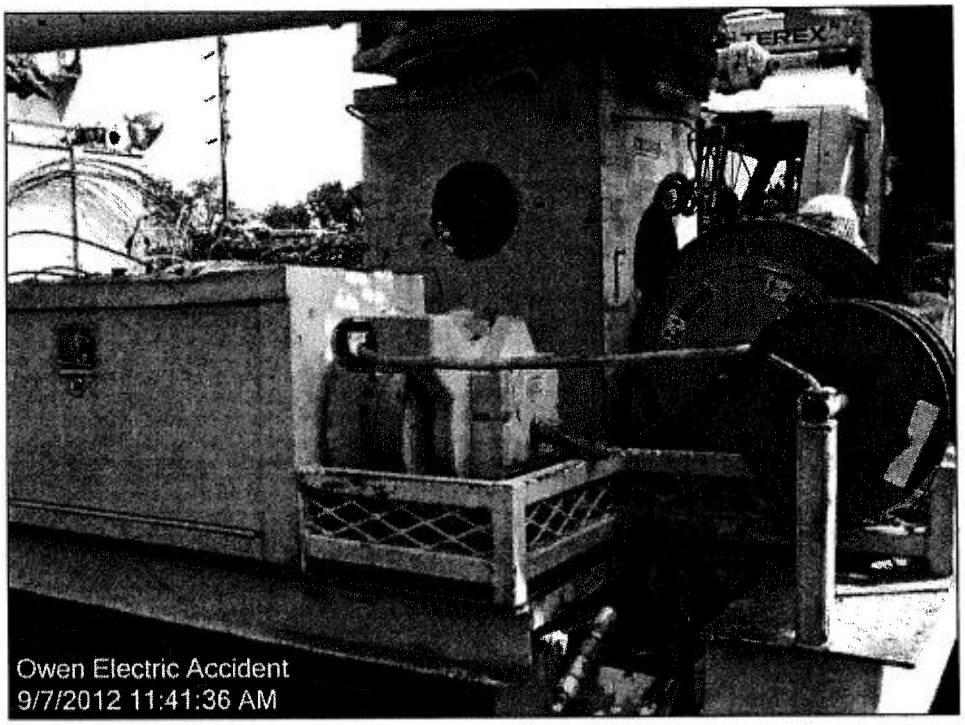
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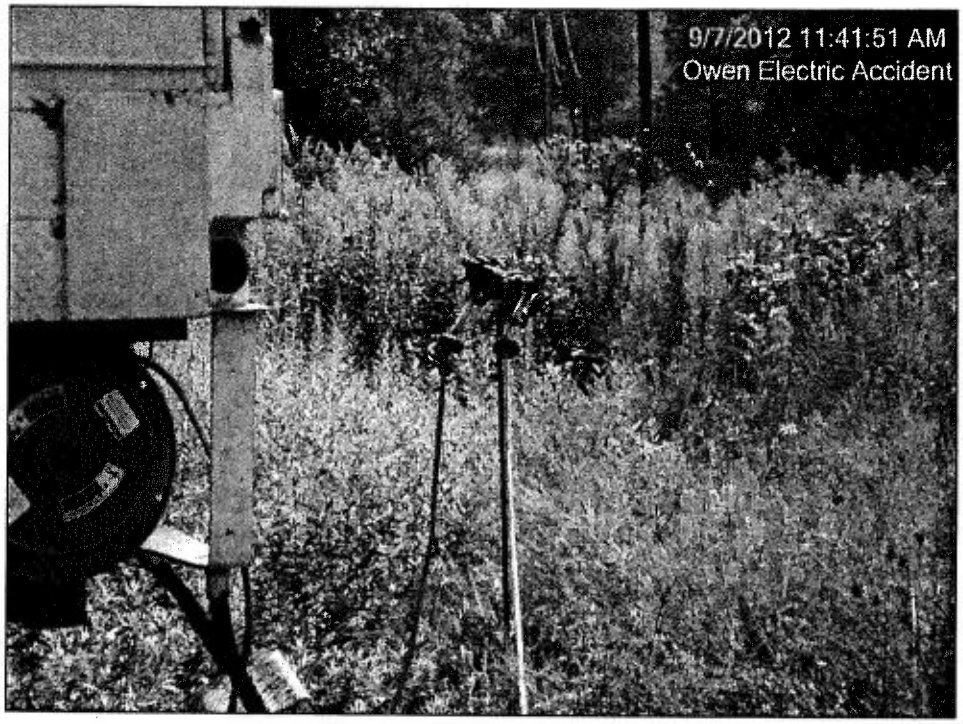
9/7/2012 11:41:36 AM

#15


Owen Electric Accident
9/7/2012 11:41:43 AM

#16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Owen Electric Accident

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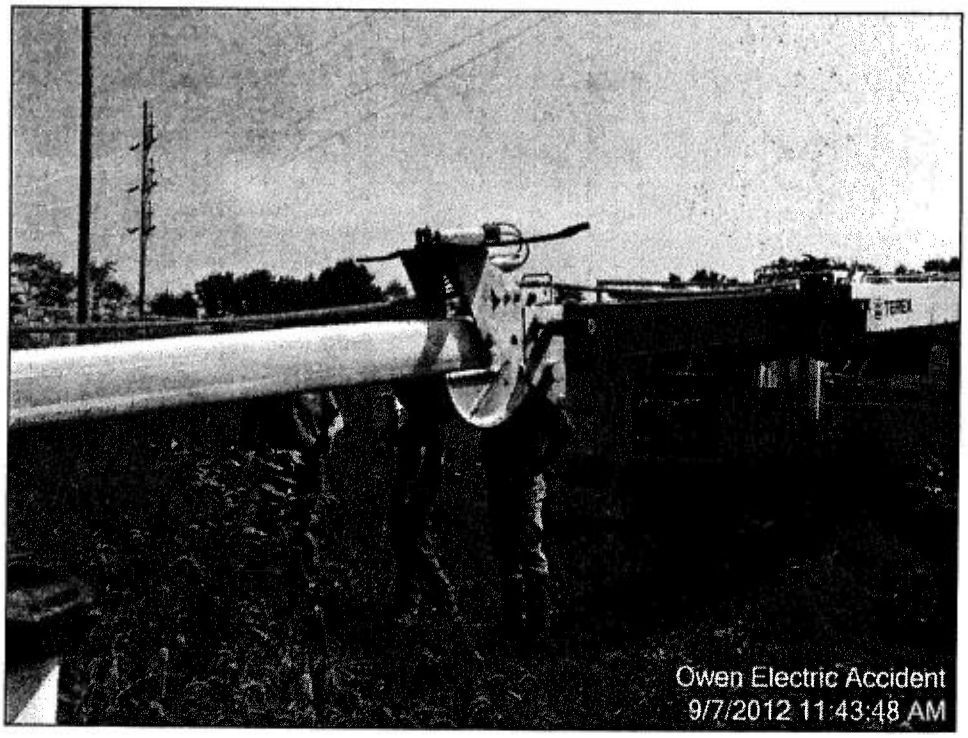
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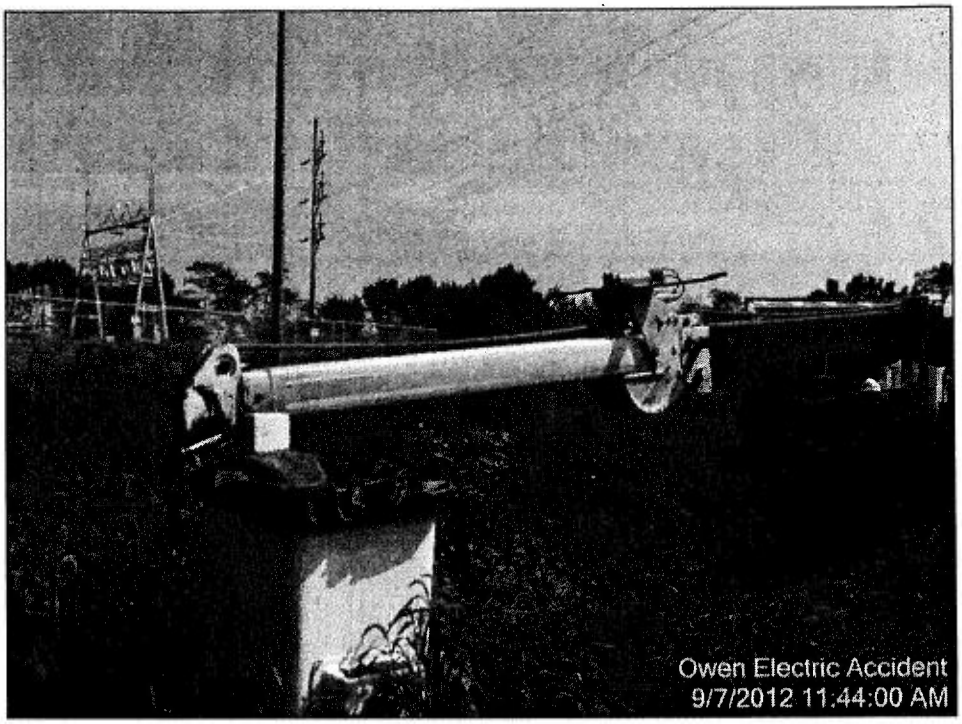
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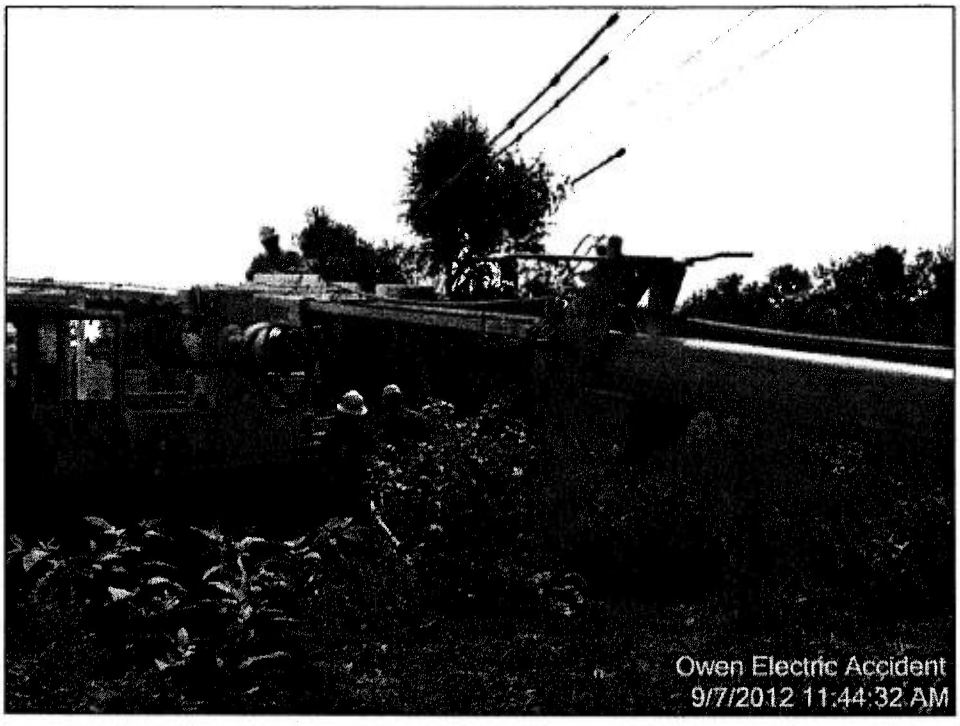
#19


Owen Electric Accident
9/7/2012 11:44:14 AM

#20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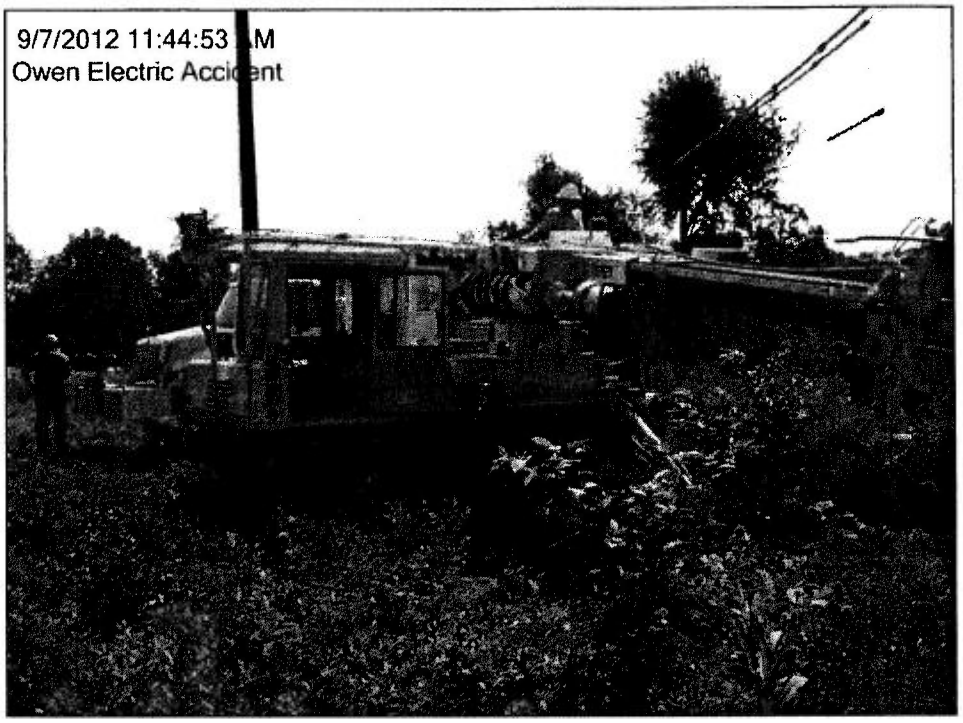
#21


9/7/2012 11:44:45 AM
Owen Electric Accident

#22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Owen Electric Accident

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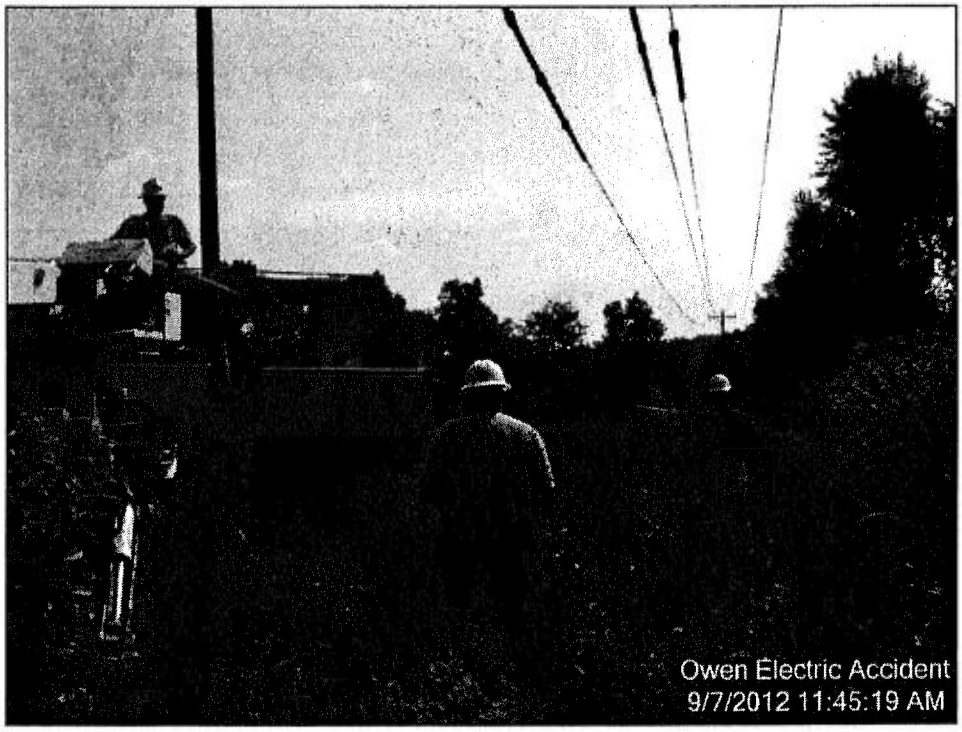

Owen Electric Accident
9/7/2012 11:45:19 AM

#24


Owen Electric Accident
9/7/2012 11:45:31 AM

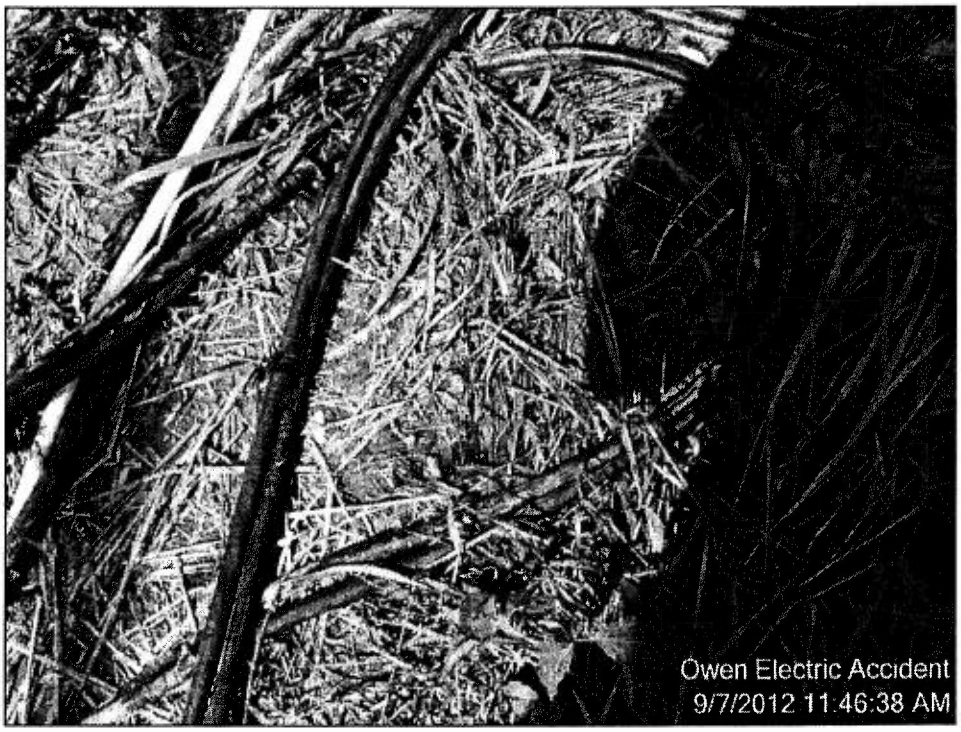
#25


9/7/2012 11:46:04 AM
Owen Electric Accident

#26


Owen Electric Accident
9/7/2012 11:46:33 AM

#27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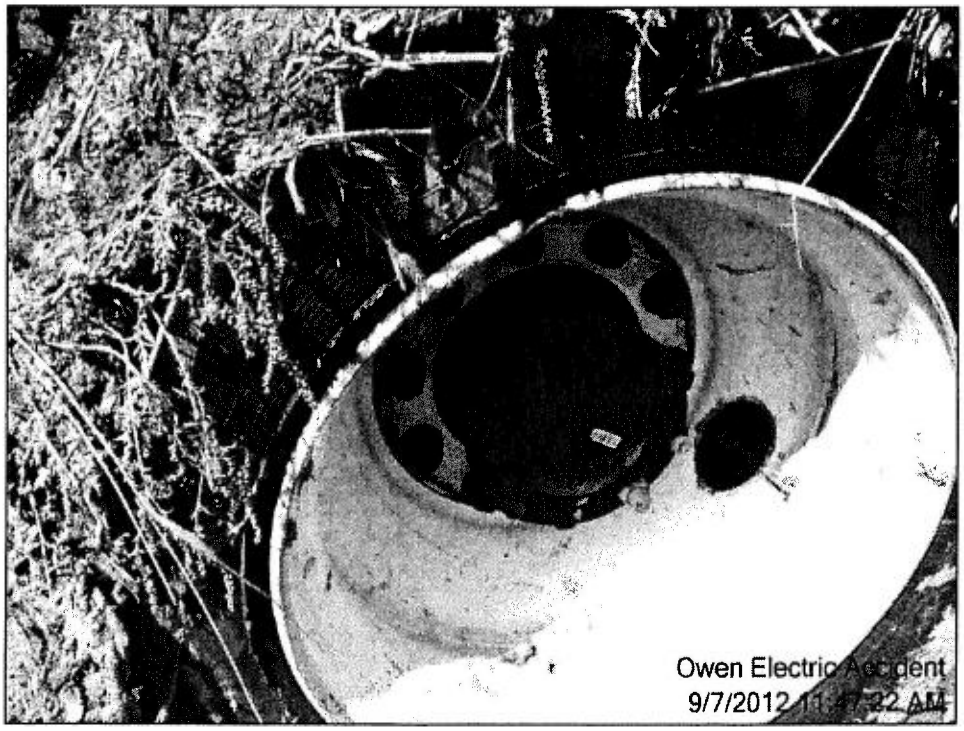
#28


9/7/2012 11:47:01 AM
Owen Electric Accident

#29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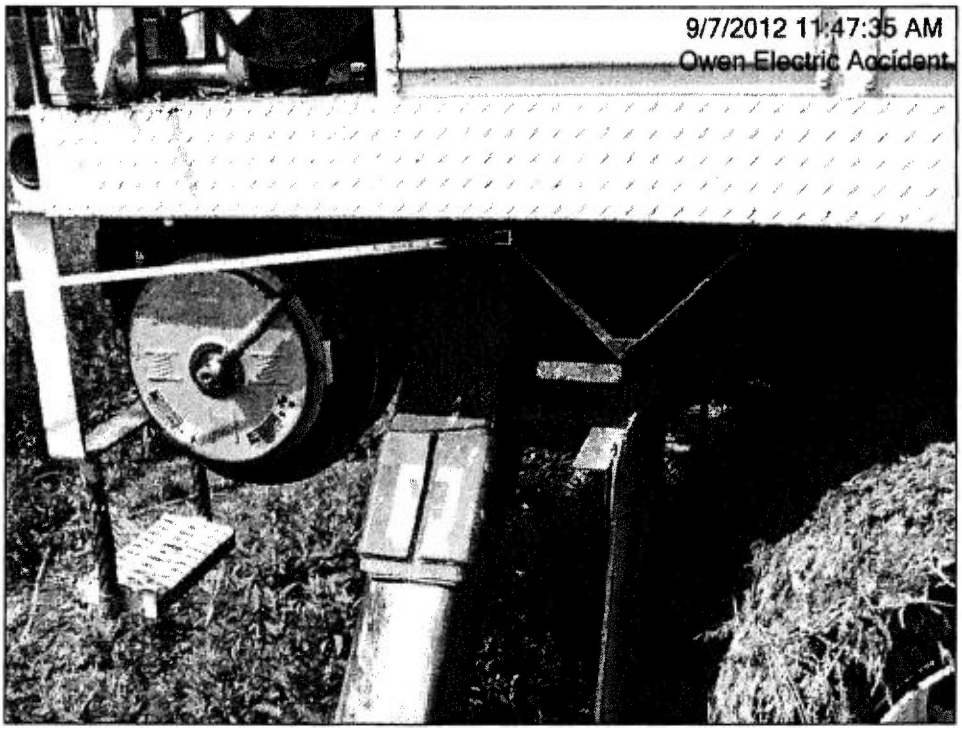
#30


9/7/2012 11:41:29 AM
Owen Electric Accident

#31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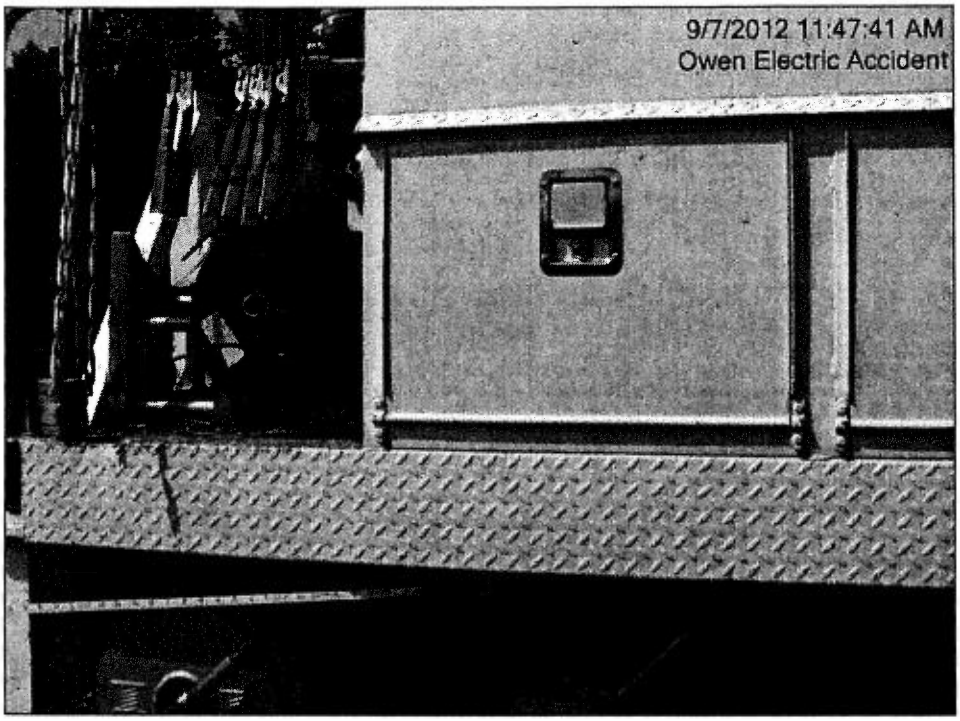
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Owen Electric Accident

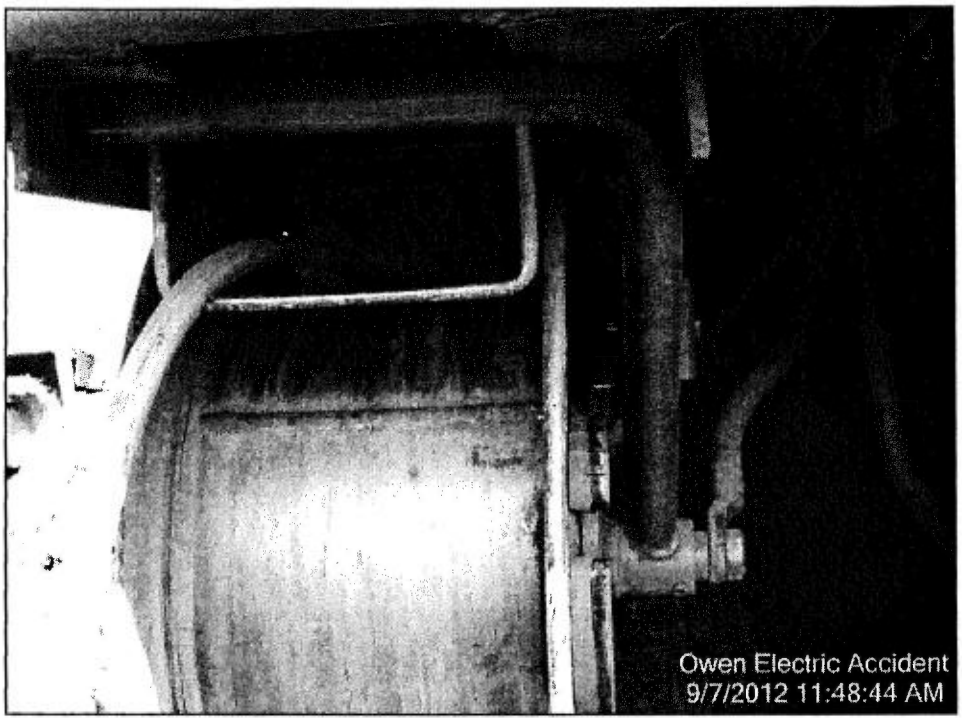
#33


9/7/2012 11:47:59 AM
Owen Electric Accident

#34

#35

#36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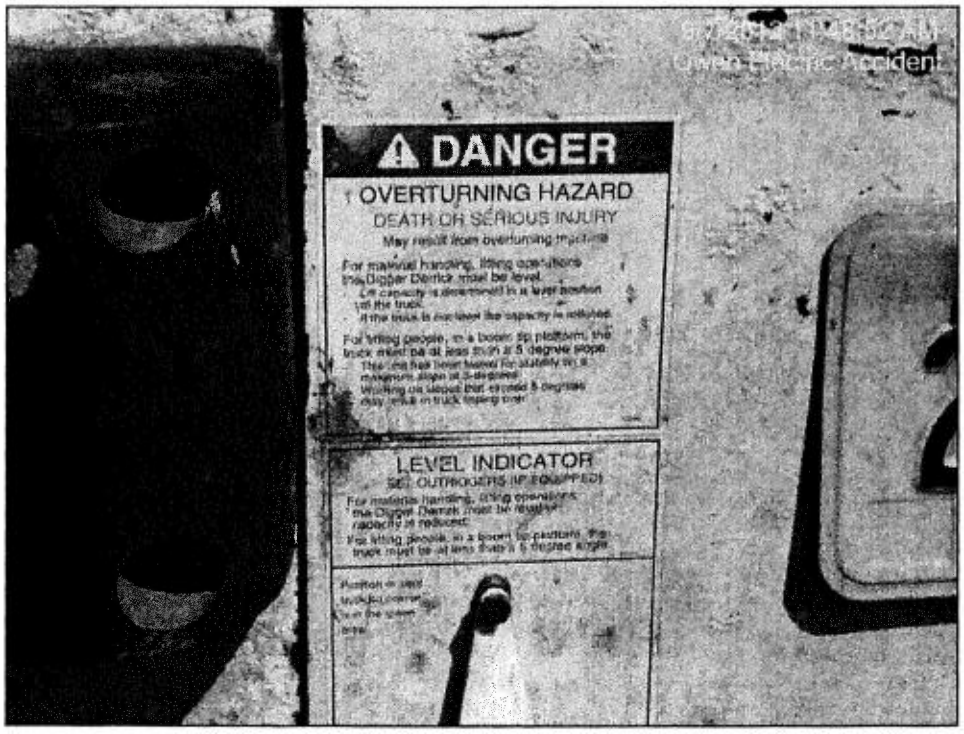
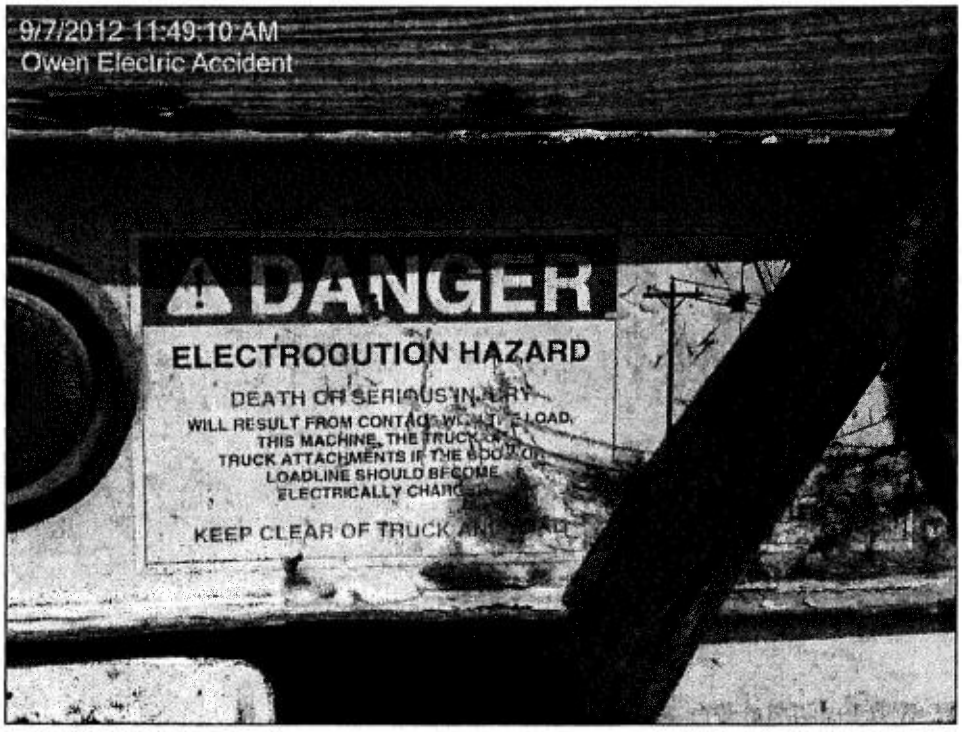

DANGER
OVERTURNING HAZARD
DEATH OR SERIOUS INJURY
LEVEL INDICATOR

#38


KENTUCKY
224209
44000

#39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DANGER
ELECTROCUTION HAZARD

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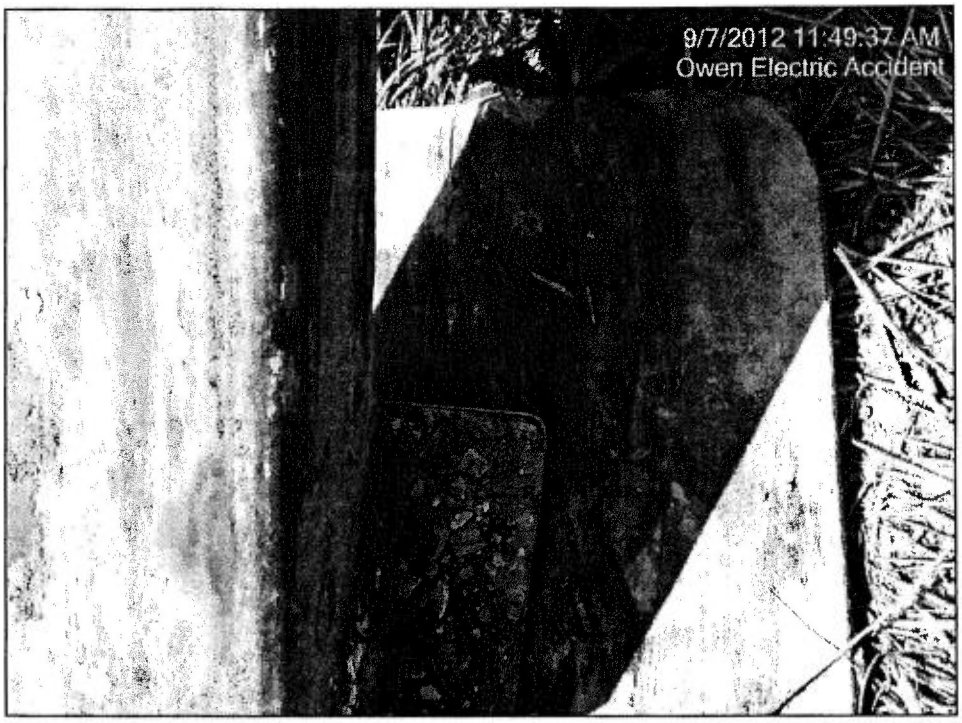
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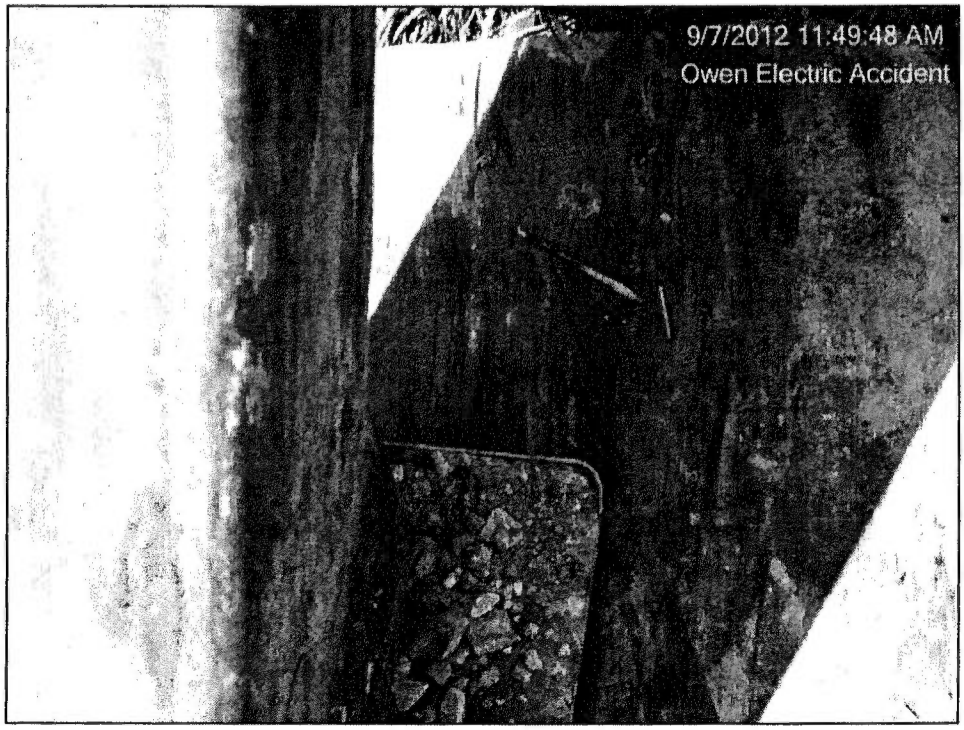
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Owen Electric Accident

#42


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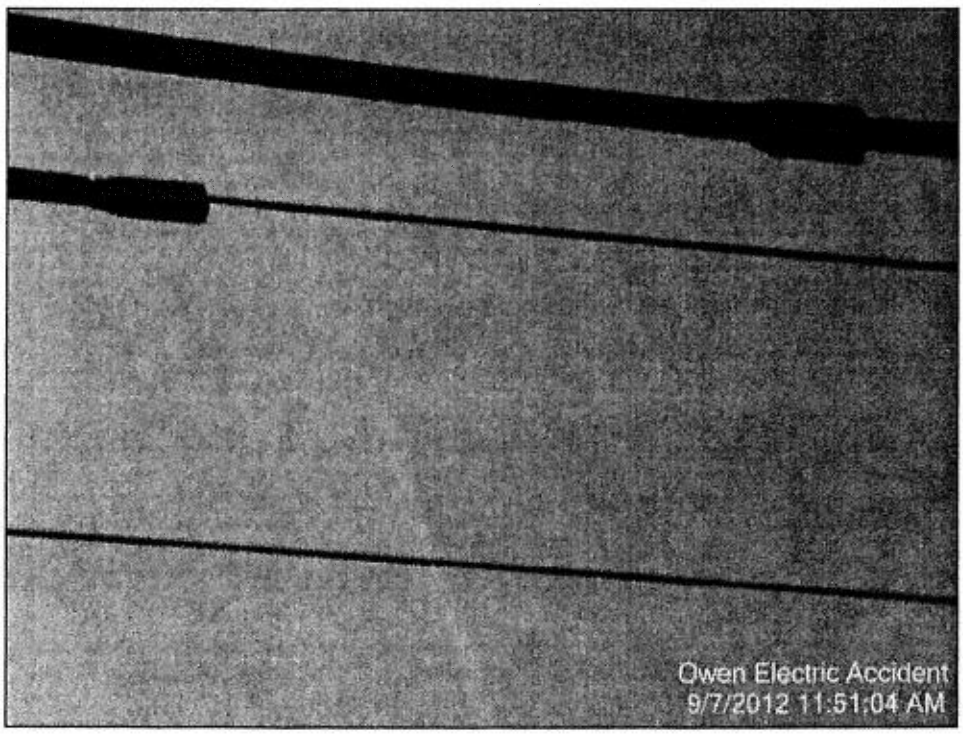
Owen Electric Accident

#43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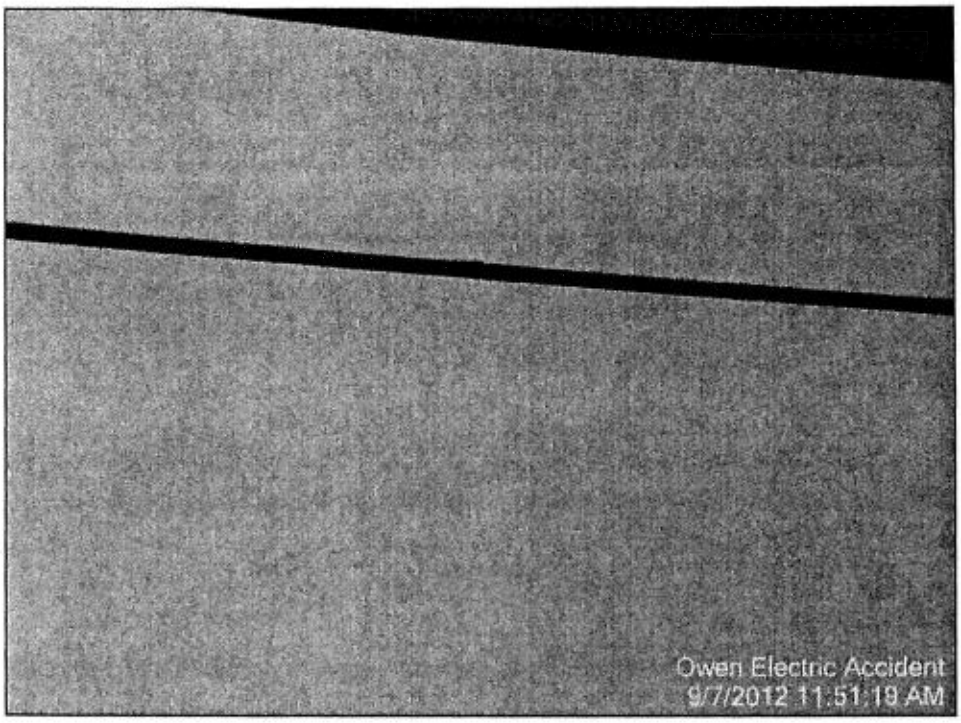
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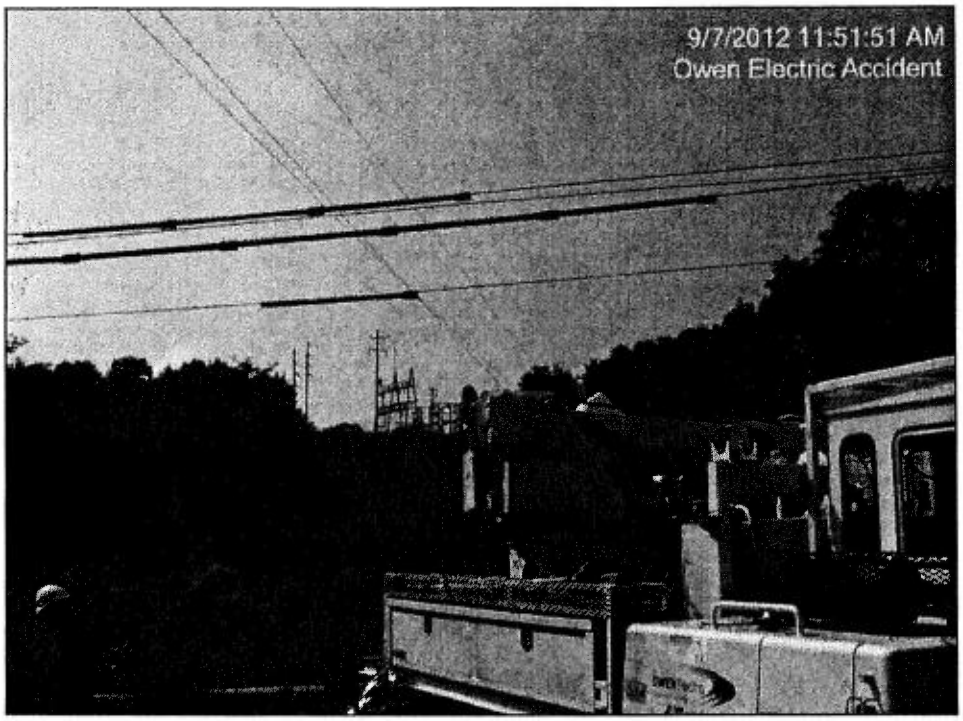
#45


9/7/2012 11:51:38 AM
Owen Electric Accident
TEREX

#46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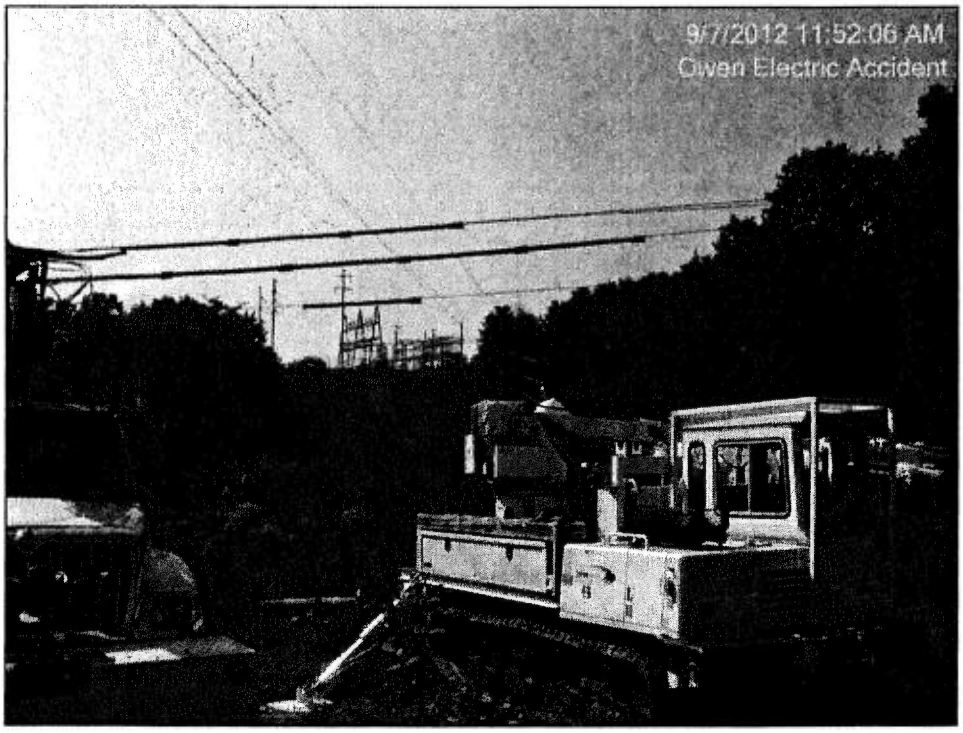
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Owen Electric Accident

#48


Owen Electric Accident
9/7/2012 11:52:14 AM

#49


Owen Electric Accident
9/7/2012 11:52:23 AM

#50


Owen Electric Accident
9/7/2012 11:52:37 AM

#51


Owen Electric Accident
9/7/2012 11:52:49 AM

#52


Owen Electric Accident
9/7/2012 11:52:56 AM

#53


9/7/2012 11:53:03 AM
Owen Electric Accident

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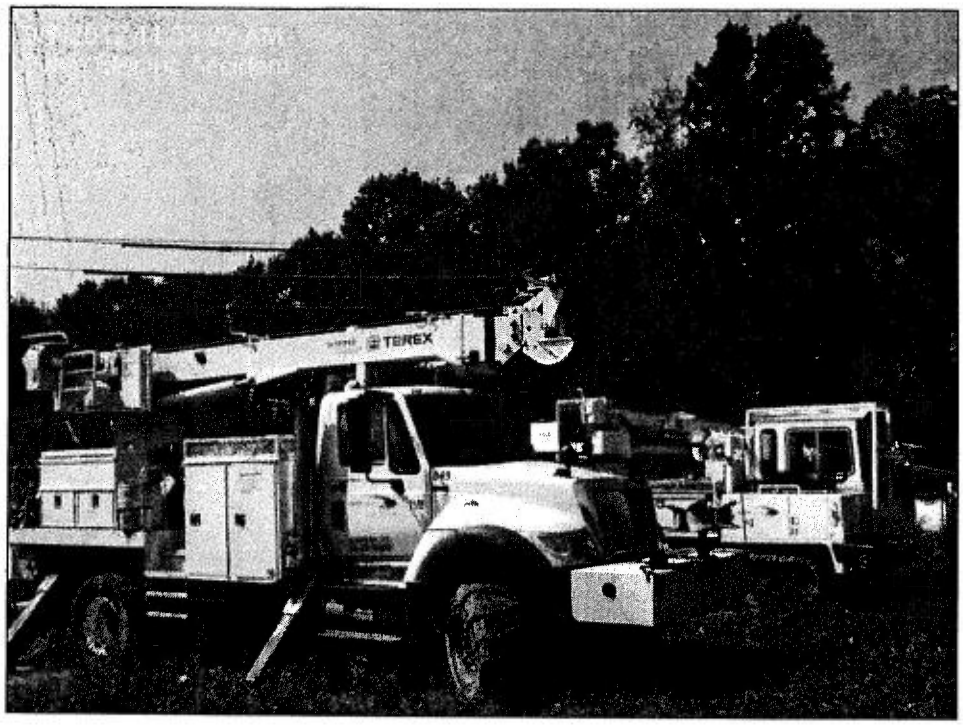

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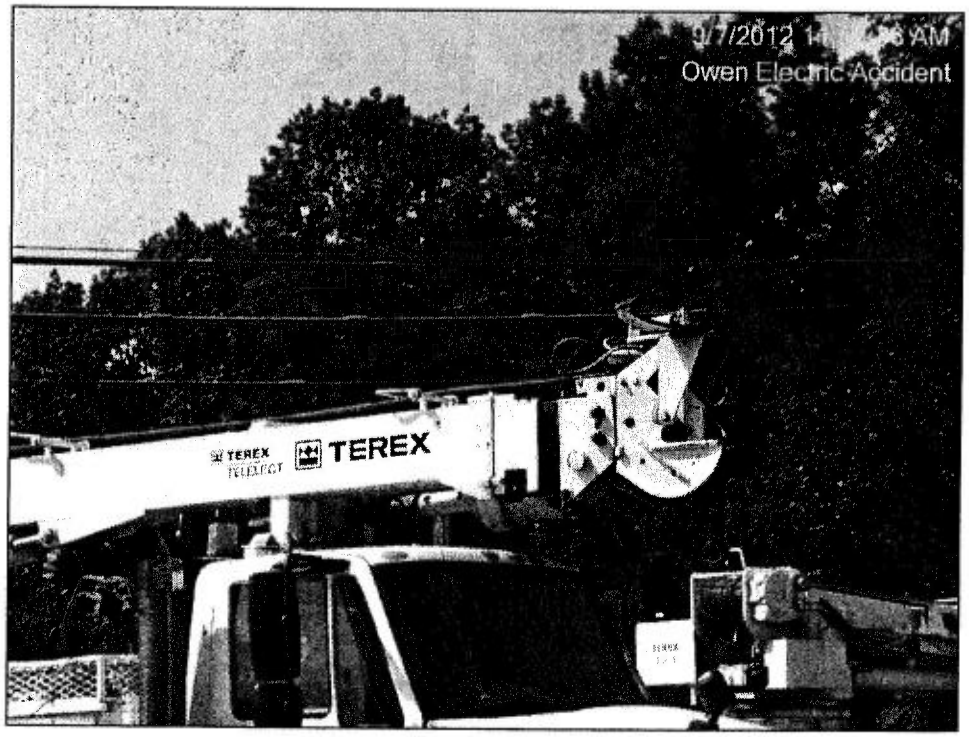

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TEREX
TEREX
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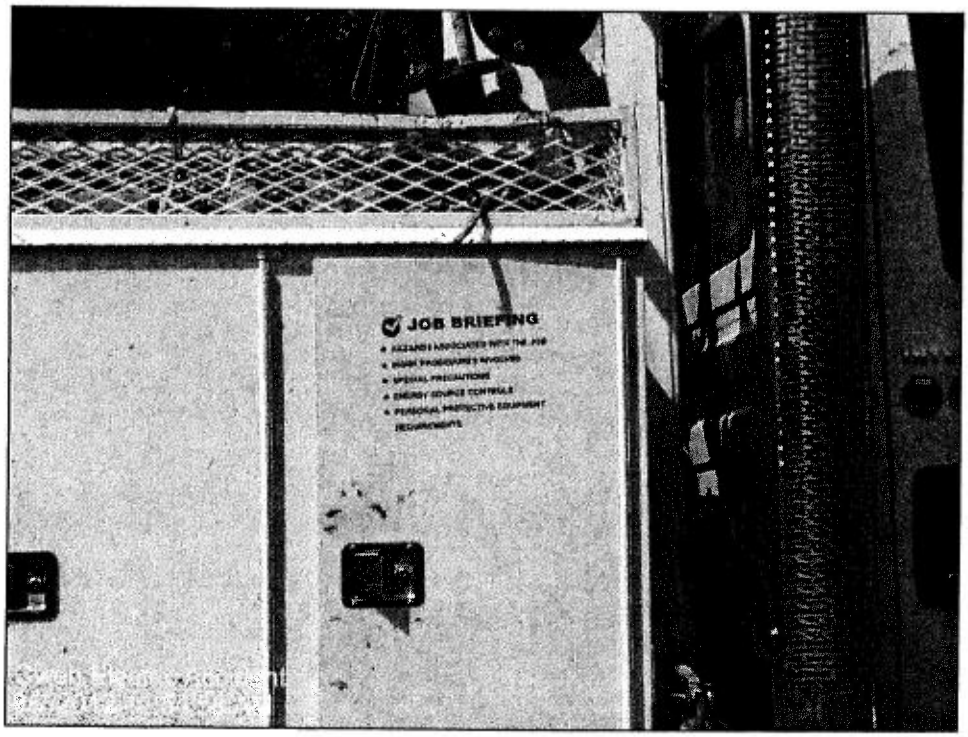
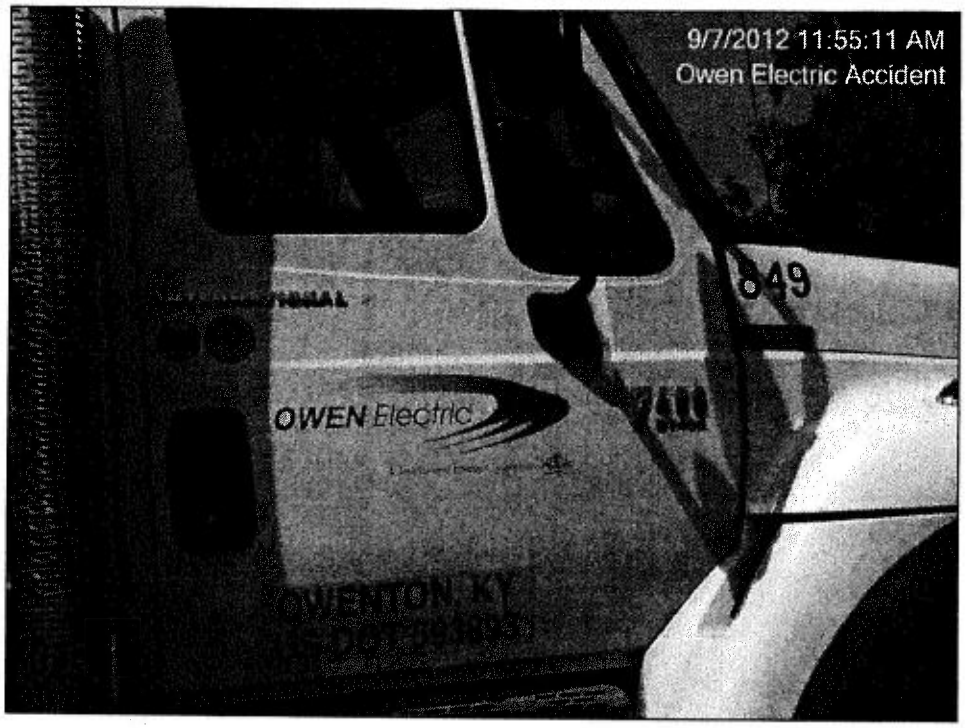

JOB BRIEFING

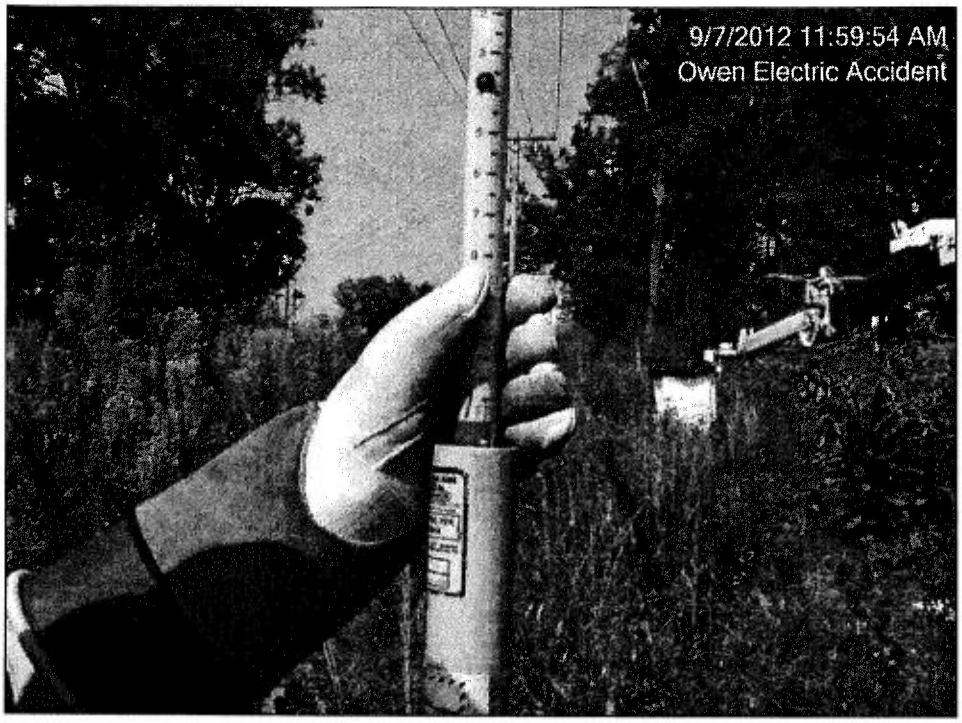
#58


9/7/2012 11:55:11 AM
Owen Electric Accident
OWEN Electric

#59


Owen Electric Accident
9/7/2012 11:58:31 AM

#60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Owen Electric Accident

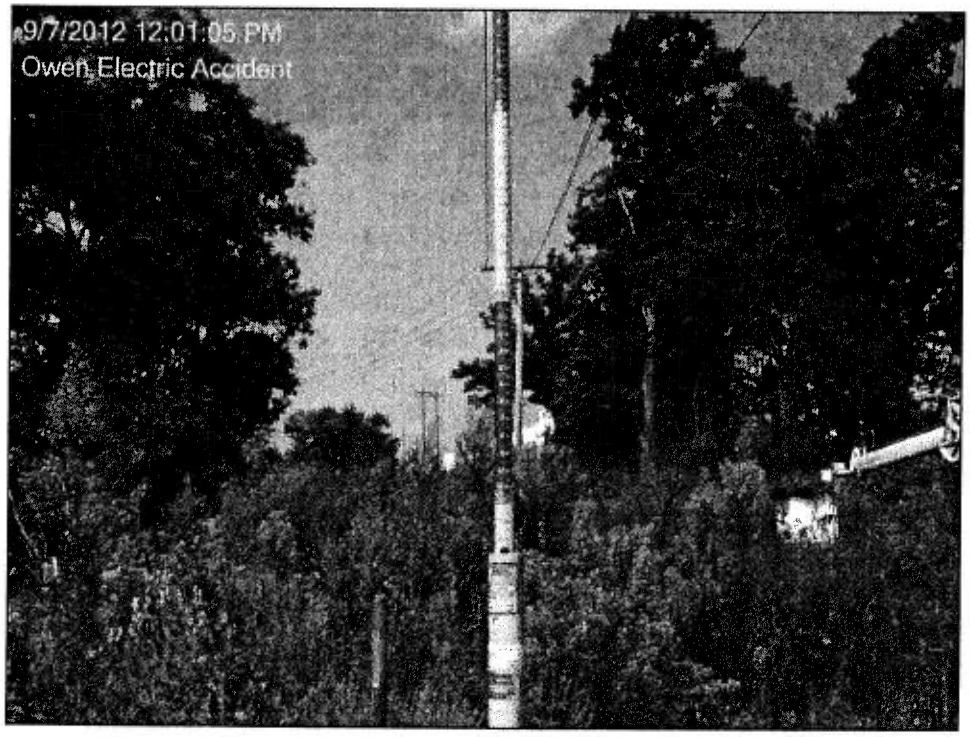
#61


9/7/2012 12:00:15 PM
Owen Electric Accident

#62


9/7/2012 12:00:44 PM
Owen Electric Accident

#63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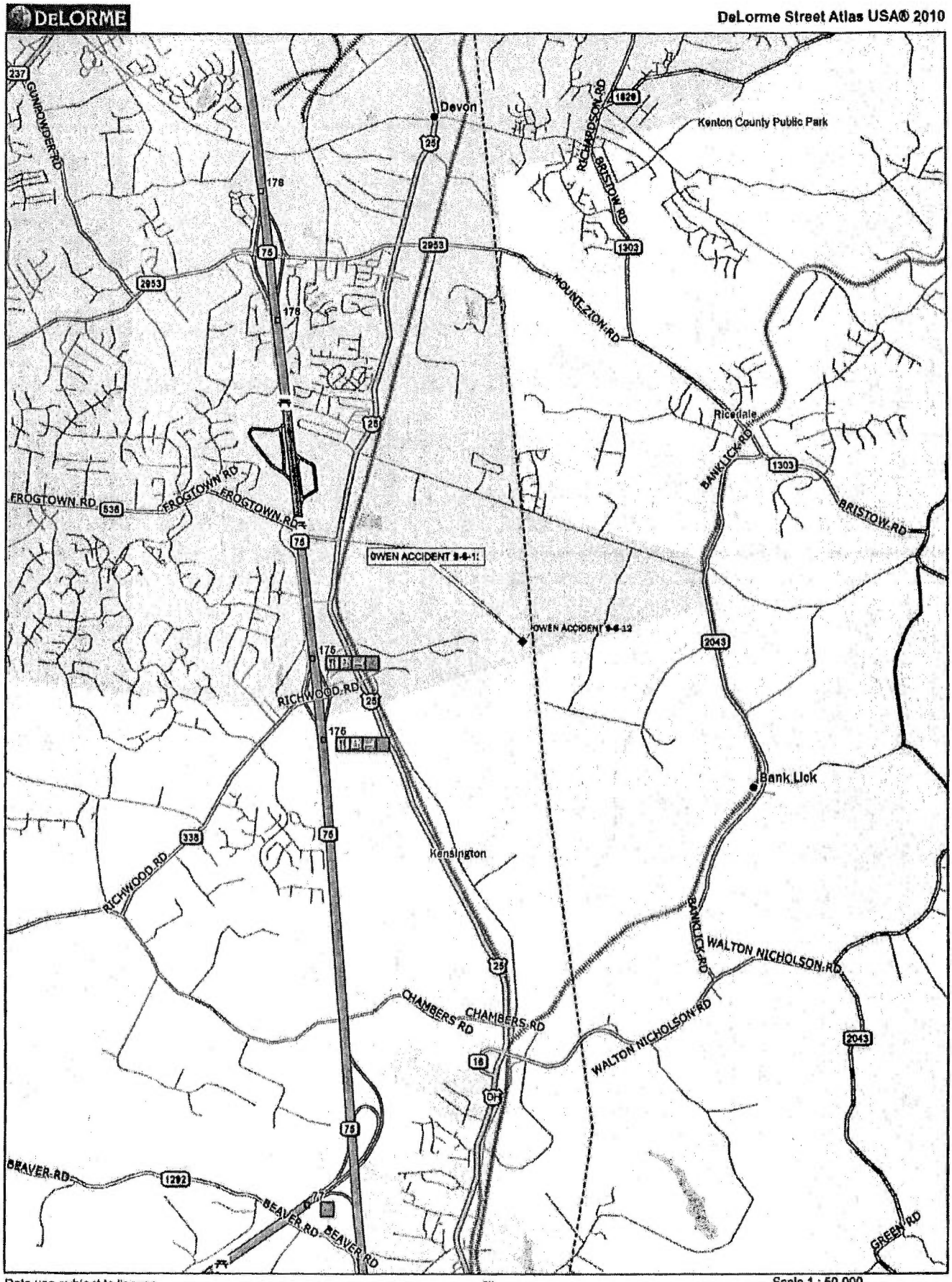
Owen Electric Accident

#64

Attachment E

KPSC Map of accident Site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FROGTOWN RD
RICHWOOD RD
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GREEN RD
OWEN ACCIDENT 9-6-11
OWEN ACCIDENT 9-6-12
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Scale 1 : 50,000
1" = 4,166.7 ft
Data Zoom 12-0

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