

RI - DNMS Licensee Event Report Disposition

Licensee: Geotechnical Consulting

Event Description: Damaged Gauge

License No: 45 25135-01 Docket No: 030 32078 MLER-RI: 2006-024

Event Date: 5-4-06 Report Date: 5-4-06 HQ Ops Event #: _____

1. REPORTING REQUIREMENT

<input type="checkbox"/>	10 CFR 20.1906 Package Contamination	<input checked="" type="checkbox"/>	10 CFR 30.50 Report
<input type="checkbox"/>	10 CFR 20.2201 Theft or Loss	<input type="checkbox"/>	10 CFR 35.3045 Medical Event
<input type="checkbox"/>	10 CFR 20.2203 30 Day Report	<input type="checkbox"/>	License Condition:
<input type="checkbox"/>	Other _____		

2. REGION I RESPONSE

<input type="checkbox"/>	Immediate Site Inspection	Inspector/Date	_____
<input type="checkbox"/>	Special Inspection	Inspector/Date	_____
<input type="checkbox"/>	Telephone Inquiry	Inspector/Date	_____
<input type="checkbox"/>	Preliminary Notification/Report	<input type="checkbox"/>	Daily Report
<input checked="" type="checkbox"/>	Information Entered in RI Log	<input type="checkbox"/>	Review at Next Inspection
<input type="checkbox"/>	Report Referred To: _____		

3. REPORT EVALUATION

<input checked="" type="checkbox"/>	Description of Event	<input type="checkbox"/>	Corrective Actions ?
<input checked="" type="checkbox"/>	Levels of RAM Involved	<input type="checkbox"/>	Calculations Adequate
<input checked="" type="checkbox"/>	Cause of Event	<input type="checkbox"/>	Additional Information Requested from Licensee

4. MANAGEMENT DIRECTIVE 8.3 EVALUATION

<input type="checkbox"/>	Release w/Exposure > Limits	<input type="checkbox"/>	Deliberate Misuse w/Exposure > Limits
<input type="checkbox"/>	Repeated Inadequate Control	<input type="checkbox"/>	Pkging Failure > 10 rads/hr or Contamination > 1000x Limits
<input type="checkbox"/>	Exposure 5x Limits	<input type="checkbox"/>	Large# Indivs w/Exp > Limits or Medical Deterministic Effects
<input type="checkbox"/>	Potential Fatality	<input type="checkbox"/>	Unique Circumstances or Safeguards Concerns
<input type="checkbox"/>	If any of the above are involved:		
<input type="checkbox"/>	Considered Need for IIT	<input type="checkbox"/>	Considered Need for AIT
<input type="checkbox"/>	Decision/Made By/Date: _____		

5. MANAGEMENT DIRECTIVE 8.10 EVALUATION (additional evaluation for medical events only)

<input type="checkbox"/>	Timeliness - Inspection Meets Requirements (5 days for overdose / 10 days for underdose)
<input type="checkbox"/>	Medical Consultant Used-Name of Consultant/Date of Report: _____
<input type="checkbox"/>	Medical Consultant Determined Event Directly Contributed to Fatality
<input type="checkbox"/>	Device Failure with Possible Adverse Generic Implications
<input type="checkbox"/>	HQ or Contractor Support Required to Evaluate Consequences

6. SPECIAL INSTRUCTIONS OR COMMENTS

Special inspection

John

Non-Public
 Public-SISP REVIEW COMPLETE

Inspector Signature: *[Signature]* Date: 5/24/06
 Branch Chief Initials: *[Signature]* Date: 5/24/06

May 8, 2006

• 4899 Prince William Parkway
Woodbridge, VA 22192
(703) 730-4160
FAX (703) 730-4170

• 21505 Greenoak Way
Dulles, VA 20166
(703) 421-4000
FAX (703) 421-8000

NRC

Attn: DNMS
Mr. Sattar Lodhi
475 Allendale Road
King of Prussia, PA 19406

Troxler Electronics Laboratories, Inc.

3008 Cornwallis Road
Research Triangle Park, NC 27709

Attn: Mr. Harry Pendleton

Re: **GC&T, Inc. License Number: 45-25135-01**

Investigation of accident involving Nuclear Density Gauge #36084, Model 3430
on 5-4-06, at George Washington Village, Fort Belvoir, VA.

Dear Sir/Madam:

The purpose of this letter is to serve as an accident report per the requirement of the NRC and Troxler. This report is based on the R.S.O. investigation and questioning of the involved parties and the events that took place.

Accident Report:

The incident was reported to GC&T's R.S.O. (Radiation Safety Officer) at approximately 4:05 pm on 5-4-06. The user technician Mr. Albert Attah, and senior technician on site (Mr. Edmond Mensah) were advised to cordon off the area and move all personnel to a safe distance of at least 300 feet from the accident site. The R.S.O., Mr. Houshang Hadioonzadeh, the GC&T company Vice President, Mr. Samir Alqutri and area field manager Mr. Michael Doering drove immediately to the site.

Upon arrival it was observed that the technicians on site had complied fully and that the site was secure. The operator of the loader which had struck the gauge had however left the work site for the day. Mr. Alqutri and the R.S.O. assessed the damage. A Troxler Radiation Survey Meter was used to perform testing to determine if any excessive radiation leakage existed. This was done by using the meter on an undamaged gauge (also on site) to determine an approximate base reading, and then comparing this reading to the damaged gauge. Most of the visually observed damage occurred on the opposite



end of the gauge from the source rod; the keypad and the internal circuitry were damaged, the external case was cracked, and the base plate appeared slightly twisted. Mr. Alqutri then telephoned the NRC in Maryland at 301-816-5100 and spoke with Mr. Bill Gott. Next morning he got a phone call from NRC King of Prussia, Pennsylvania office and spoke with Mr. Sattar Lodhi. The emergency telephone # for Troxler Electronic Laboratories in Raleigh, North Carolina was also contacted. The company R.S.O. ascertained that it would be safe to transport the gauge to the GC&T Corporate Office for storage. On 5-5-06 a statement was obtained from the loader operator.

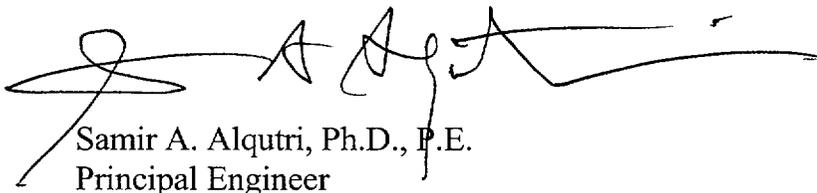
From interviewing the technician, Mr. Albert Attah, the following was concluded:

Mr. Attah had taken a compaction test on the last lift of soil over a sanitary sewer line. He then walked to the south side of the trench area to get a better view of compaction lift thickness being performed on the next length of pipe, farther along the line of fill. The loader operator, who was parked near where the actual compaction was being performed, backed up to get his next bucket load of soil for fill. Mr. Attah attempted to get the operators attention by waving to stop him. The operator did not see this until the damage occurred. All work immediately ceased and the area was secured. The actions previously described were then taken.

Thanks for your cooperation with us on this matter, should you have any questions or need further information please call me at 703-730-4160 X-2001.

Respectfully Submitted,

GEOTECHNICAL CONSULTING & TESTING, INC.



Samir A. Alqutri, Ph.D., P.E.
Principal Engineer

Attachments: Pictures of the damaged gauge at the site.
Metro Earthworks operator's statement.
Leak Test Report

Cc: File

H:\Data\Public\Samir Temp\Investigation of gauge incident.doc





Troxler Electronic Laboratories, Inc.

3008 Cornwallis Rd., P.O. Box 12057
Research Triangle Park, NC 27709
Tel: (877) 876-9537 Fax: (919) 485-2250

License: NC 032-0182-1

LEAK TEST CERTIFICATE

DEVICE:

Model: 3430 Serial No: 36084

SEALED SOURCES:

SERIAL NO.	MEASURE DATE	NUCLIDE	ACTIVITY	
			(GBq)	(mCi)
77-3213	08/16/2004	CS-137	0.296	8
47-12121	08/11/1988	AM-241:BE	1.48	40

LEAK TEST ANALYSIS:

Sample collected on: 05/05/2006

Sample analyzed on: 05/08/2006 at 12:27:00 PM

Analyzed by: HARRY P. PENDLETON, JR.

	ALPHA	BETA-GAMMA
Conversion factor (cpm/Bq)	1.28E+01	2.04E+01
Background measurement (cpm)	1	28
Sample measurement (cpm)	1	25
Activity (Bq)	< MDA	< MDA
Min. Detectable Activity (Bq)	6.1E-01	1.3E+00

This certifies that the above leak test results are:

Less than 185 Bq (0.005 uCi) Greater than 185 Bq (0.005 uCi)

If greater than 185 Bq (0.005 uCi):

Person Notified _____ Date _____

Phone _____ and/or Fax _____

GEOTECHNICAL CONSULTING & TESTING, INC.
Consulting Engineers, Certified Inspectors
8551 Sudley Road
MANASSAS, VIRGINIA 22110
(703) 335-5134 FAX (703) 335-1835

JOB Ft Belvoir - George Washington V
SHEET NO. _____ OF _____
CALCULATED BY _____ DATE _____
CHECKED BY _____ DATE _____
SCALE _____

MAY 5 2006

I JAMES HAILSTORCK WAS BACK FILLING
A DITCH. I DID NOT SEE THE MACHINE WHEN
I BACKING UP

JAMES HAILSTORCK

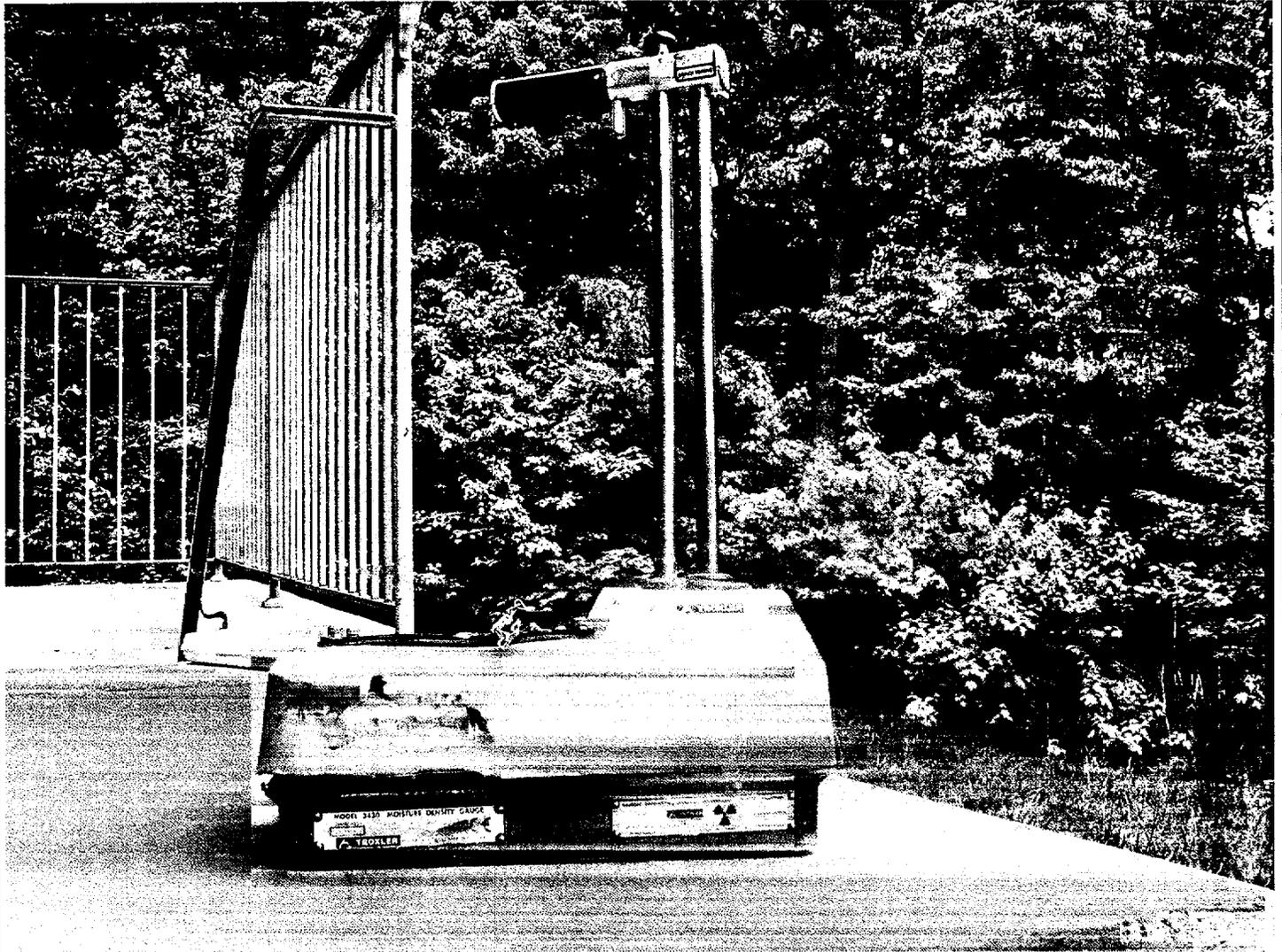


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4899 Prince William Parkway
Woodbridge, Virginia 22192
TEL: (703) 730-4160 FAX: (703) 730-4170

GAUGE 084

Picture taken on May 5, 2006

Picture 1 of 9

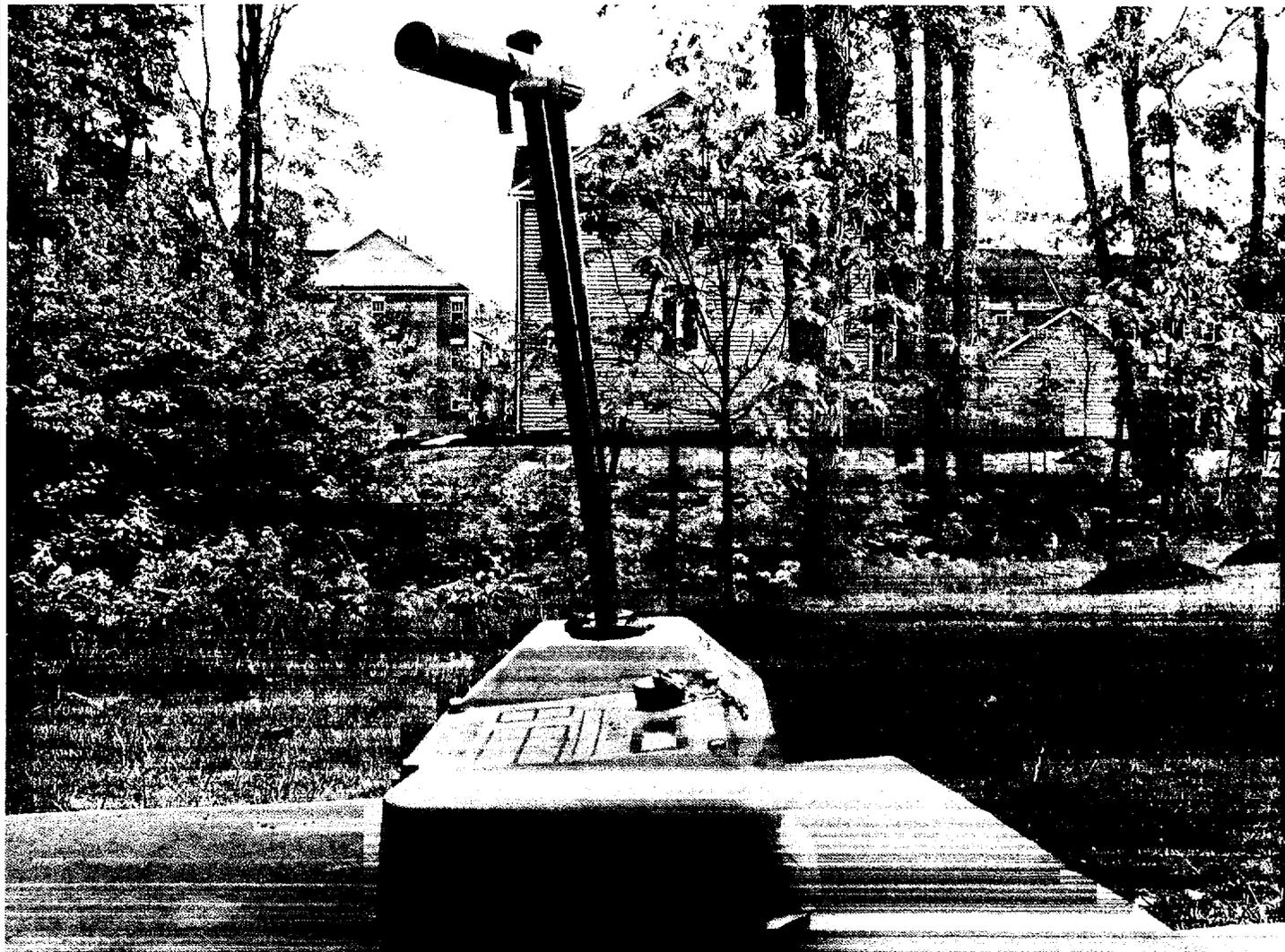


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Picture taken on May 5, 2006

Picture 3 of 9

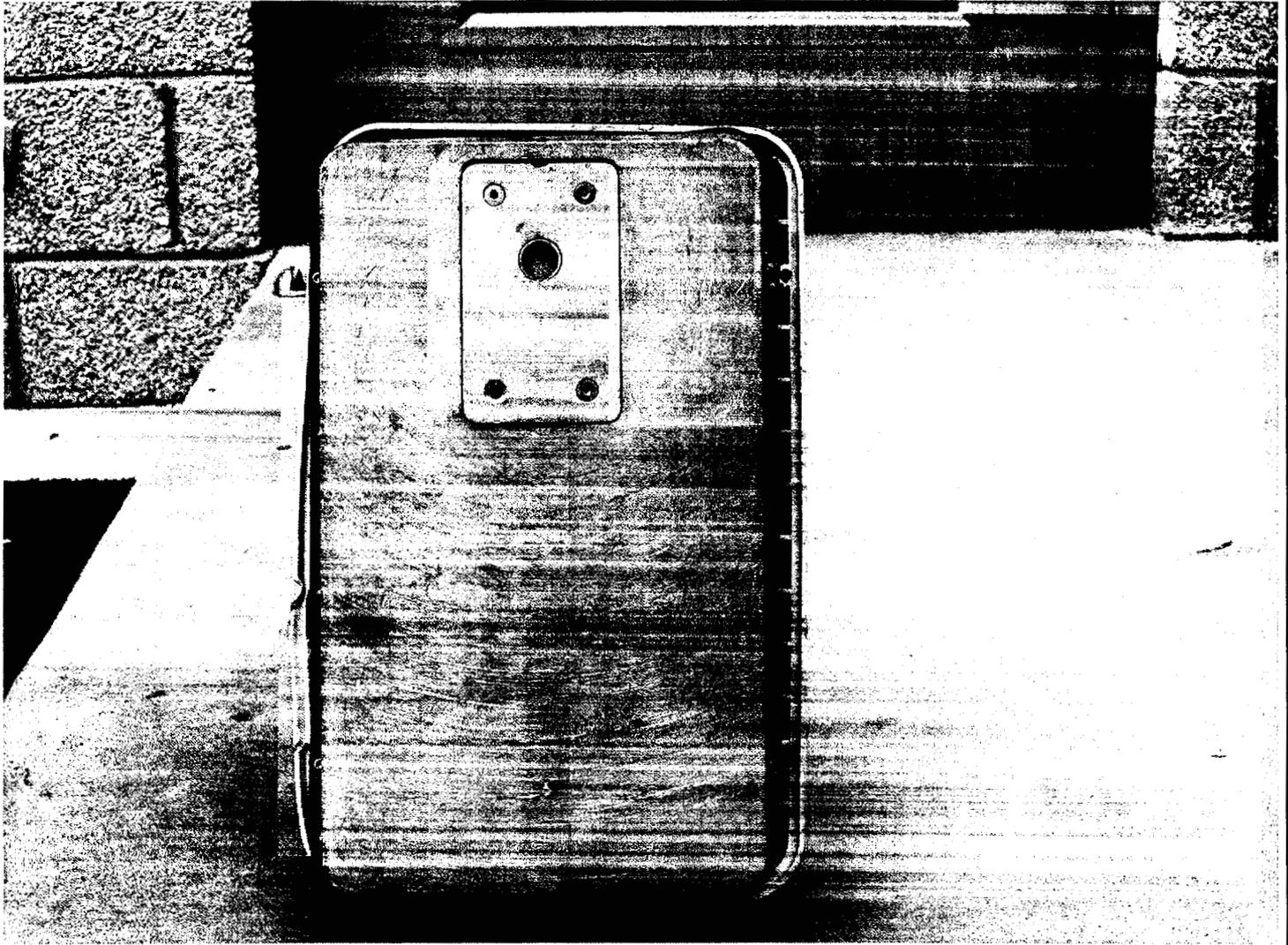


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Picture 4 of 9

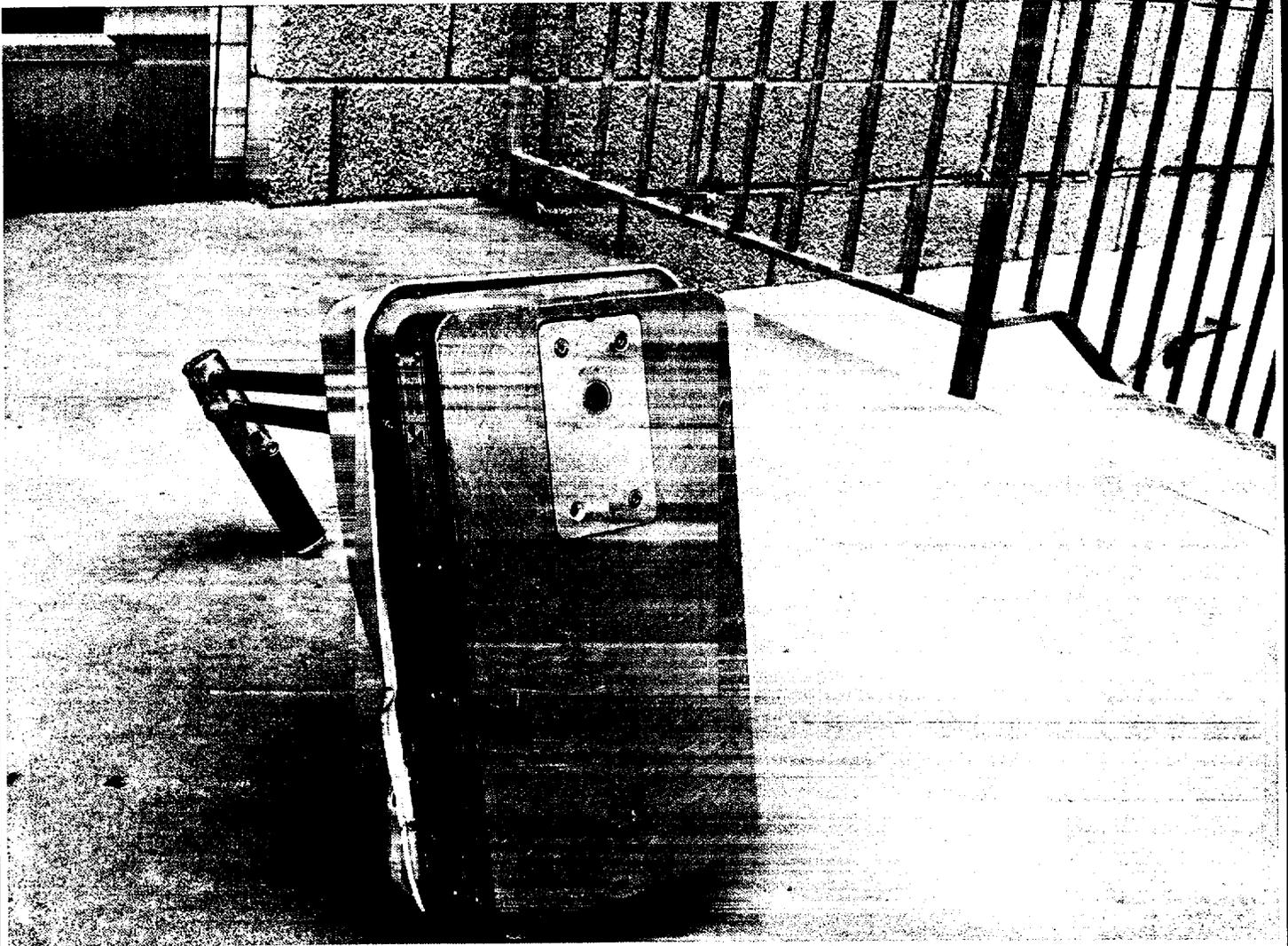


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Picture 5 of 9

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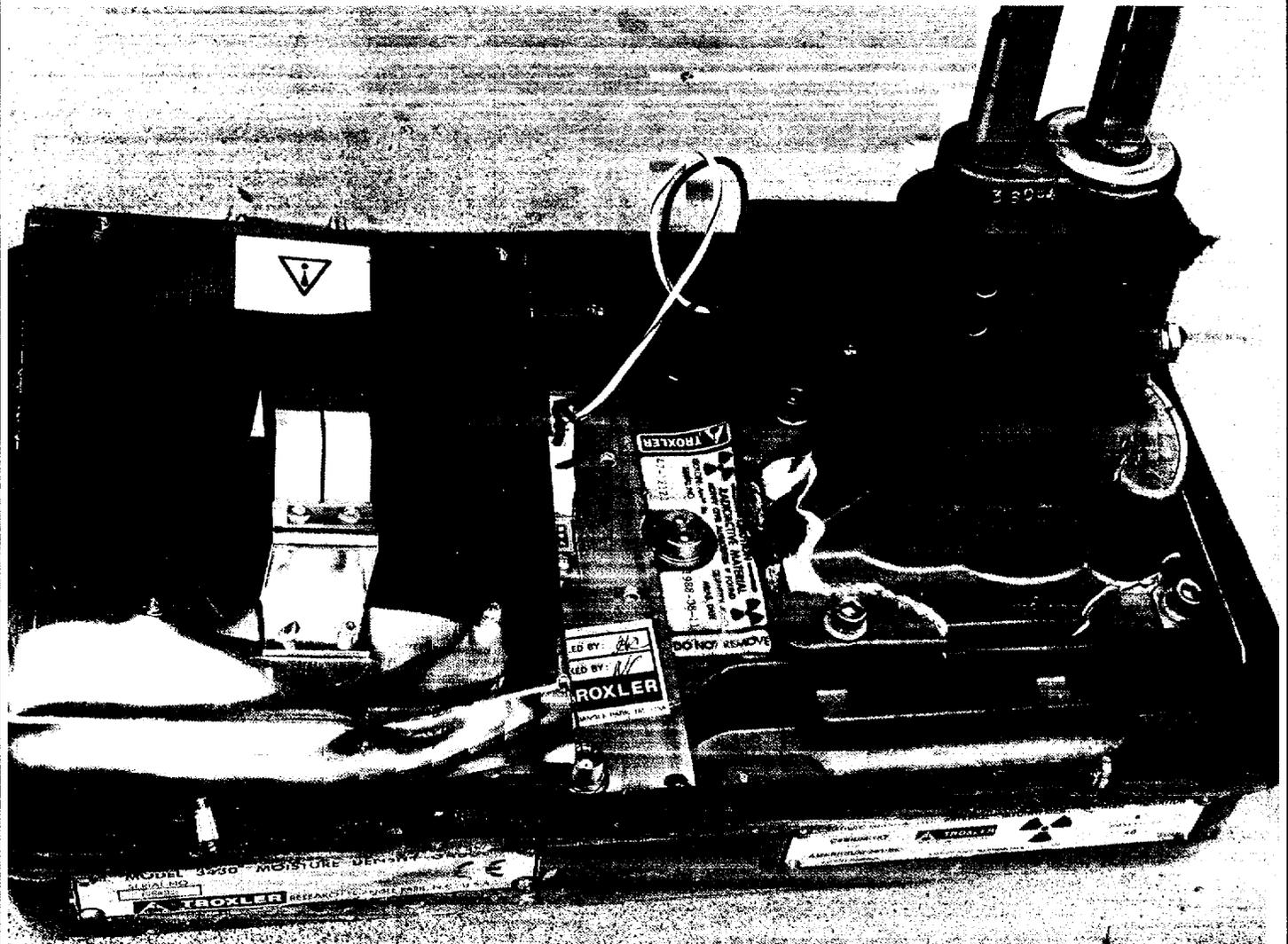


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Picture 6 of 9

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Picture 7 of 9

Picture taken on May 5, 2006

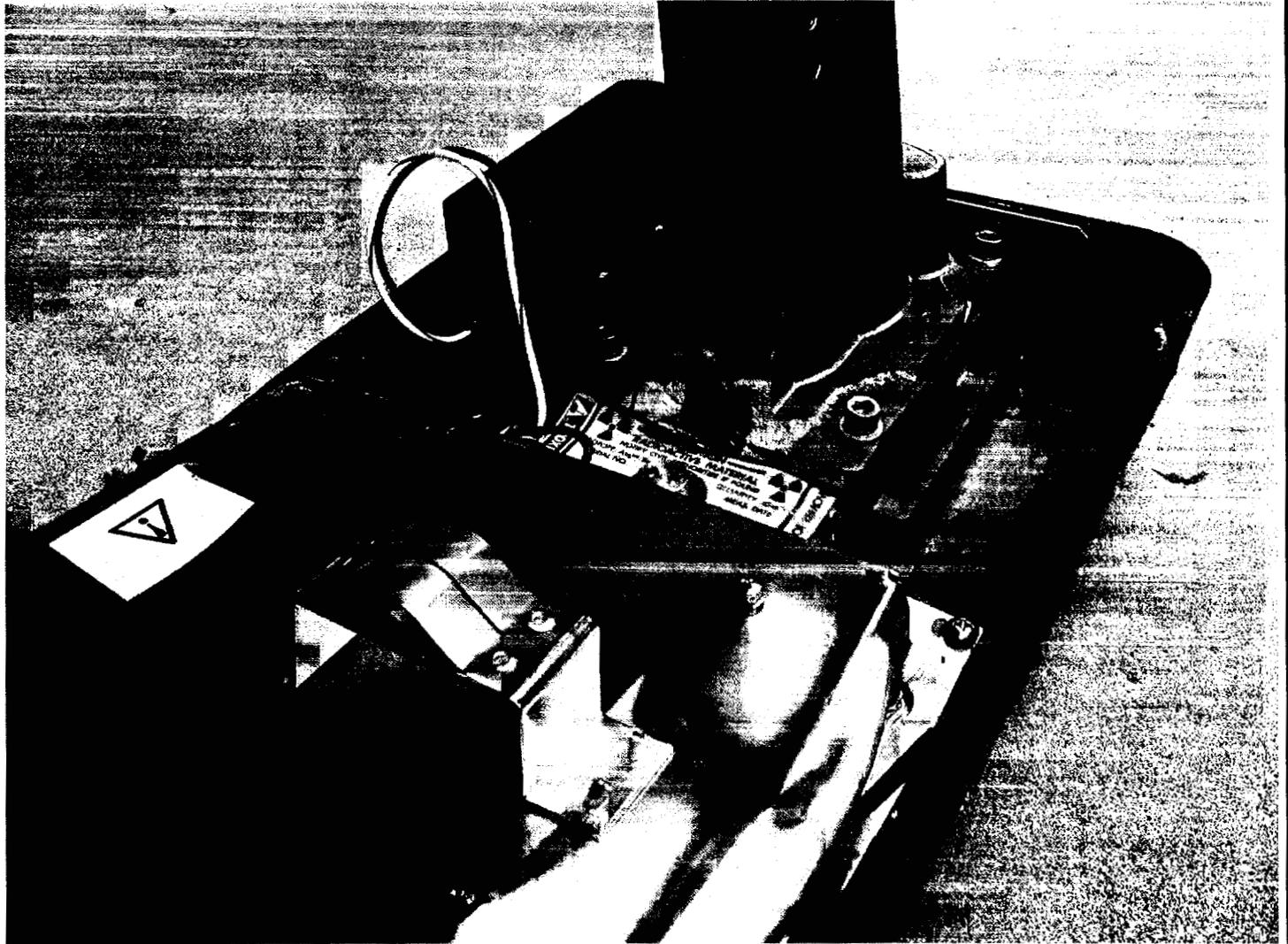


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Picture 8 of 9



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Picture 9 of 9

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