a PPL company

Mr. Jeff DeRouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602-0615

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April 1, 2011

RE: ***The Application of Louisville Gas and Electric Company for Approval of a Permanent Statistical Meter Sampling Plan***
Case No. 2000-00278
and
The Application of Louisville Gas and Electric Company to Implement a Gas Regulator Inspection and Replacement Program
Case No. 2002-00262

Dear Mr. DeRouen:

Enclosed please find five copies of Louisville Gas and Electric Company's 2010 Gas Meter Performance Control Plan and the 2010 Regulator Inspection and Replacement Report pursuant to the Commission's Order in the above mentioned proceedings.

Should you have any questions concerning the enclosed, please contact me at your convenience.

Sincerely,

Rick E. Lovekamp

Enclosure

Louisville Gas & Electric

Gas Meter Performance
Control Plan Year 2010

Year 2010 Gas Meter Sampling Plan Results

I. Introduction

The 2010 LG&E Gas Meter Performance Control Program required 8,057 gas meters within 145 control groups be tested and their accuracy performance documented.

One (1) residential meter classified as a Prior Meter (installed before 1985) remains installed however it is located within a vacant boarded up structure and no access could be gained to remove the meter. Multiple attempts have been made annually since 1995 to gain entry and remove the meter.

Any sampled meter which proof tested beyond +/- 2% (fast or slow) was considered to be a failed meter. The control groups sampled during 2010 performed extremely well and only one commercial class control group consisting of three (3) meters failed the sampling criteria. This report summarizes the results of the 2010 LG&E Gas Meter Sampling Program.

II. Meter Performance

The meter groups were separated into three capacity classifications. Meters with capacities up to and including 500 CFH, which primarily represent residential meters, represented the largest group with ninety-three (93) control groups and 7,215 meters. Meters with capacities which range from 501 CFH to 1500 CFH (Commercial), represented the second largest group with forty-four (44) control groups and 744 meters. Meters with capacities 1501 CFH (Industrial) and above comprised the balance of the sampling with eight (8) control groups and ninety-eight (98) meters.

A summary of each control group, along with statistical analysis data, is shown in appendix A. The definitions of selected statistical categories are included, and the sample groups are arranged from low to high capacity.

One hundred forty-four (144) out of the one hundred forty-five (145) control groups passed the sampling criteria in 2010. A total of eleven (11) control groups had their remaining population removed through the sampling program in 2010.

A. Residential Class - Up to and including 500 cfh

1. Strong Performing Groups - Reduced Sampling

The strongest performing meter groups in this capacity continue to be the American AL175, AL250, AC250, and the AL425 models. Of the 1,586 meters in the twenty-five (25) control groups of AL175 meters, only twenty-four (24) individual meters failed the sampling criteria, a 1.51 percent failure rate. The twenty-one (21) AC250 control groups had a total of eight (8) failures out of the 1,416 meters tested, a 0.56 percent failure rate. The twelve (12) AL425 control groups totaling 384 meters experienced three (3) failures, a 0.78 percent failure rate.

The American Meter Company AC250 residential model was the primary gas meter LG&E purchased as additional stock in 2010 for new business and as a replacement for various models of gas meters LG&E disposed of instead of having remanufactured, which continues to improve the overall accuracy of the installed meter population.

Test results from year 2010 were analyzed for the below groups to verify each model did not exceed the Limit Numbers For Reduced Inspection, Table VIII, under the American Standard – Sampling Procedures and Tables For Inspection By Attributes guidelines.

Model – American AL175 CFH
Earliest Years - Last 10 Control Groups Tested = 824 Meters Tested
Limit Number For Reduced Testing - 42
Actual Deviate Meters – 14

Model – American AC250 CFH
Earliest Years - Last 10 Control Groups Tested = 566 Meters Tested
Limit Number For Reduced Testing - 25
Actual Deviate Meters – 4

Model – American AL425 CFH
Earliest Years - Last 10 Control Groups Tested = 320 Meters Tested
Limit Number For Reduced Testing – 14
Actual Deviate Meters - 2

The below models will remain on Reduced Sampling in year 2011.

American Model AL175 CFH (Model Codes 033 and 33A)
American Model AL425 CFH (Model Code 015)
American Model AC250 CFH (Model Code 078)

2. Weak Performing Residential Groups

The older models of Rockwell residential class 250 CFH meters continue to be one of the poorest performing control groups. Of the two (2) Rockwell R250 Code 057 control groups consisting of eighty-two (82) meters sampled this year, eleven (11) of the individual meters failed the sampling criteria for a 13.41 percent failure rate.

Rockwell R250 gas meters removed from the system are being replaced by the better performing models of the American AL175 and AC250 gas meter. At the end of the 2010 only 320 Rockwell R250 gas meters remain installed.

The Rockwell 175 CFH meters continue to be one of the weaker performing control groups. Of the twenty (20) Rockwell R175 control groups consisting of 2,890 meters sampled this year, one hundred twenty-two (122) of the individual meters failed the sampling criteria for a 4.22 percent failure rate.

One control group within the Actaris 250 Metris model performed extremely weak. The five (5) control groups sampled this year experienced twenty (20) failures out of the 685 meters tested, a 2.91 percent failure rate. Actaris Metris 250 models when removed from service are disposed of and are not remanufactured for an additional service period.

The one (1) American AL250 control group totaling thirty-two (32) meters experienced two (2) failures, a 6.25 percent failure rate. This model is being phased out as the meters are removed due to the small number of this model installed. Only twenty-two meters of this model remain installed and they will be exhausted in the 2011 program.

B. Commercial Class - 501 cfh up to and including 1500 cfh

Forty-four (44) control groups in the Commercial Meter Class were tested in 2010 and there was one (1) control group failure. The one control group which failed, the 053 Rockwell R800 model, only had three (3) meters in the original 2010 population of which two (2) were changed for sample test, with one of them failing the sampling criteria. The remaining one meter will be removed in the 2011 program.

The strongest performing meters in this class was the American AL800 meter which experienced zero (0) individual meter failures within the eight (8) control groups tested, the AL1400 which experienced zero (0) individual meter failures within the seven (7) control groups tested, and the Rockwell #3 Emco which experienced zero (0) failures within the eight (8) control groups tested.

The AL1000 which experienced fifteen (15) individual meter failures within the eight (8) control groups tested and the Rockwell R750 which experienced seven (7) individual meter

failures within the eight (8) control groups tested both demonstrated acceptable performance.

Beginning in the 2003 test year, all Commercial Class Control Groups, regardless of whether they meet the Limit Numbers For Reduced Inspection, Table VIII, under the American Standard – Sampling Procedures and Tables For Inspection By Attributes guidelines, have been placed on the Single Sampling Plan For Normal Inspection due to the small volume of meters in the Commercial Class Control Groups.

C. Industrial Class - Over 1500 cfh

The eight (8) control groups in this capacity range performed well enough that no control groups failed the sampling criteria. Two of the control groups were exhausted by the 2010 Sampling Program. The six (6) control groups not exhausted in the 2010 sample program had no individual meters exceed the sampling accuracy criteria.

Beginning in 2003 test year, all Industrial Class control groups, regardless of whether they meet the Limit Numbers For Reduced Inspection, Table VIII, under the American Standard – Sampling Procedures and Tables For Inspection By Attributes guidelines, have been placed on the Single Sampling Plan For Normal Inspection due to the small volume of meters in the Industrial Class control groups.

III. Safety

As part of the LG&E Meter Sampling change-out activities, safety inspections were performed and "red-tags" were issued when deficiencies were found which resulted in a customers appliance being left off or the customers gas service partially or fully suspended until the deficiency was corrected by the customer. The results of these safety inspections directly associated with LG&E's Meter Sampling Program are summarized in Table 2 below.

Table 2: Year 2010 Safety Inspection Results

Type of Problem/Appliance	**# of "Red Tags"**
Water Heater Not Venting Correctly/Leaks/Other	6
Houseline Leak –left off at meter	14
Obsolete Appliance (flexible hook-up lines, etc;)	94
Furnace Problem (internal leak, various Problems)	4
Cook Stove Leak	2
Gas Grill Leak	3
Fireplace Leak	1
Corrosion On Service Head Adapter	2

Space Heater Leak	1
Pilot Controls Leaking	1
Houseline Running Through Heating Duct	1
Protective Sleeve Covering Cracked	1
Leak Detected On Gas Piping	4

Additionally, 2,608 Customer Surveillance Notices were issued to customers to correct outside deficiencies on their meter loop or exposed outside gas piping.

Table 3: Year 2010 Customer Surveillance Notices Issued

Type Of Customer Notice Issued	Number Issued
Corrosion / Rust On Outside Meter Loop & Associated Piping	2,395
Tree / Shrubbery Growing Inside / Against Meter Loop	36
Gas Piping Not Properly Supported	140
Meter Not Protected From Vehicular Damage	28
Customer Built Over Service Line / Around Meter	2

IV. Year 2010 Residential Meter Sampling Savings

Table 4, which highlights the estimated savings between a periodic change schedule and the LG&E Gas Meter Performance Control Program for the purchase of new/remanufactured residential class gas meters, is included on the next page.

Table 4: **2010 Residential Class Meter Sampling Program Estimated Savings**

Metering Savings: Residential Gas Meters	
Periodic Program Costs (10-year Program):	
Number of Meters under Periodic Program [1]	32,292
Unit Remanufacture Cost – Average Blended Cost	$ 26.37
Residential Meter Costs Under Periodic Program	$851,540
Sampling Program Costs:	
Number of Meters under Sampling Program	7,215
Number of meters scrapped-Not Remanufactured	688
Number of Meters for Remanufacture	6,527
Remanufactured Meters	6,527
Average Unit Remanufacture Cost – All Models	$26.37
Remanufactured Meter Costs	$172,117
Replacement Meters (including FST Replacements)	688
Average Replacement Meter Cost (per unit)	$ 39.50
Replacement Meter Costs	$27,176
Total Meter Costs Under 2010 Sampling Program	$199,293
Meter Cost Savings From 2010 Program	$652,247

Administrative and Development Costs:	
Programming Development Costs:	
Number of Hours in Programming	60
Pay Rate with Overheads	$ 65.00
Development Costs	$ 3,900
Additional Administrative Costs (Supervisory):	
Total Hours (based on 10 hrs/week)	520
Billing Rate with Overheads	$ 50.86
Additional Admin. Costs	$26,447
Total Administrative & Development Costs	$30,347

Net 2010 Residential Meter Cost Savings	$621,900

[1] Based on residential meters on line end of year

APPENDIX A

Control Group Data/Analysis

Control Group Test Data Range

Frequency Histograms (Examples)

Statistical Definitions

MEDIAN

The median is the number in the middle of a set of numbers; that is, half the numbers have values that are greater than the median and half have values that are less.

STANDARD DEVIATION

The standard deviation is a measure of how widely values are dispersed from the average value (the mean).

SKEWNESS

Skewness characterizes the degree of asymmetry of a distribution around its mean. Positive skewness indicates a distribution with an asymmetric tail extending towards more positive values. Negative skewness indicates a distribution with an asymmetric tail extending towards more negative values.

CONFIDENCE

The confidence interval is a range on either side of a sample mean. For example, if you order a product through the mail, you can determine, with a particular level of confidence, the earliest and latest the product should arrive.

American AL425

425 CFH

Code: 015

Test Year 2010

	Control Group-Installed Year											
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2004	2006	2008
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	1	32	32	32	32	32	32	32	32	32	32	32
Original Population	1	107	451	365	495	366	392	817	310	373	572	513
# of Slow Failures	0	0	0	0	1	0	0	0	0	0	0	0
# of Fast Failures	0	0	0	0	0	0	0	0	0	1	1	0
Total Failures:	0	0	0	0	1	0	0	0	0	1	1	0
Accept Level	0	5	5	5	5	5	5	5	5	5	5	5
Reject Level	1	8	8	8	8	8	8	8	8	8	8	8
Pass/ Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	Exhaust	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:												
Mean (Average Proof)	0.4	-0.18906	-0.25938	-0.325	-0.46406	-0.12813	0.021875	-0.04844	-0.14844	0.157813	-0.03125	0.003125
Median	0.4	-0.4	-0.4	-0.4	-0.325	0.1	0.175	-0.175	-0.125	-0.1	-0.05	0.025
Standard Deviation	NA	0.676058	0.624814	0.555616	1.126459	0.647817	0.594048	0.491457	0.617681	1.298952	0.713663	0.460879
Sample Variance	NA	0.457054	0.390393	0.30871	1.268909	0.419667	0.352893	0.24153	0.38153	1.687276	0.509315	0.212409
Skewness	NA	0.253328	0.275059	0.358682	-3.14906	-0.60689	-0.34719	0.527726	-0.02242	4.19816	1.319263	-0.33373
Minimum	0.4	-1.35	-1.25	-1.35	-5.65	-1.5	-1.3	-0.75	-1.3	-0.85	-1.6	-0.95
Maximum	0.4	1.15	1	0.75	1.35	1.15	1.35	0.95	1	6.6	2.6	0.8
Count	1	32	32	32	32	32	32	32	32	32	32	32
Confidence Level(95.0%)	NA	0.243745	0.22527	0.200321	0.406132	0.233563	0.214177	0.177189	0.222698	0.468322	0.257303	0.166165

Year 2010

Meter Code 015 American AL 425

Code & Year:	1994
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	1

Code & Year:	1995
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	13
-.4 to .4	11
.4 to 1.2	7
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	12
-.4 to .4	11
.4 to 1.2	6
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1997
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	13
-.4 to .4	11
.4 to 1.2	6
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1998
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	10
-.4 to .4	15
.4 to 1.2	2
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1999
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	6
-.4 to .4	18
.4 to 1.2	5
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	6
-.4 to .4	16
.4 to 1.2	7
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	8
-.4 to .4	18
.4 to 1.2	6
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	9
-.4 to .4	16
.4 to 1.2	6
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	8
-.4 to .4	19
.4 to 1.2	3
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	32

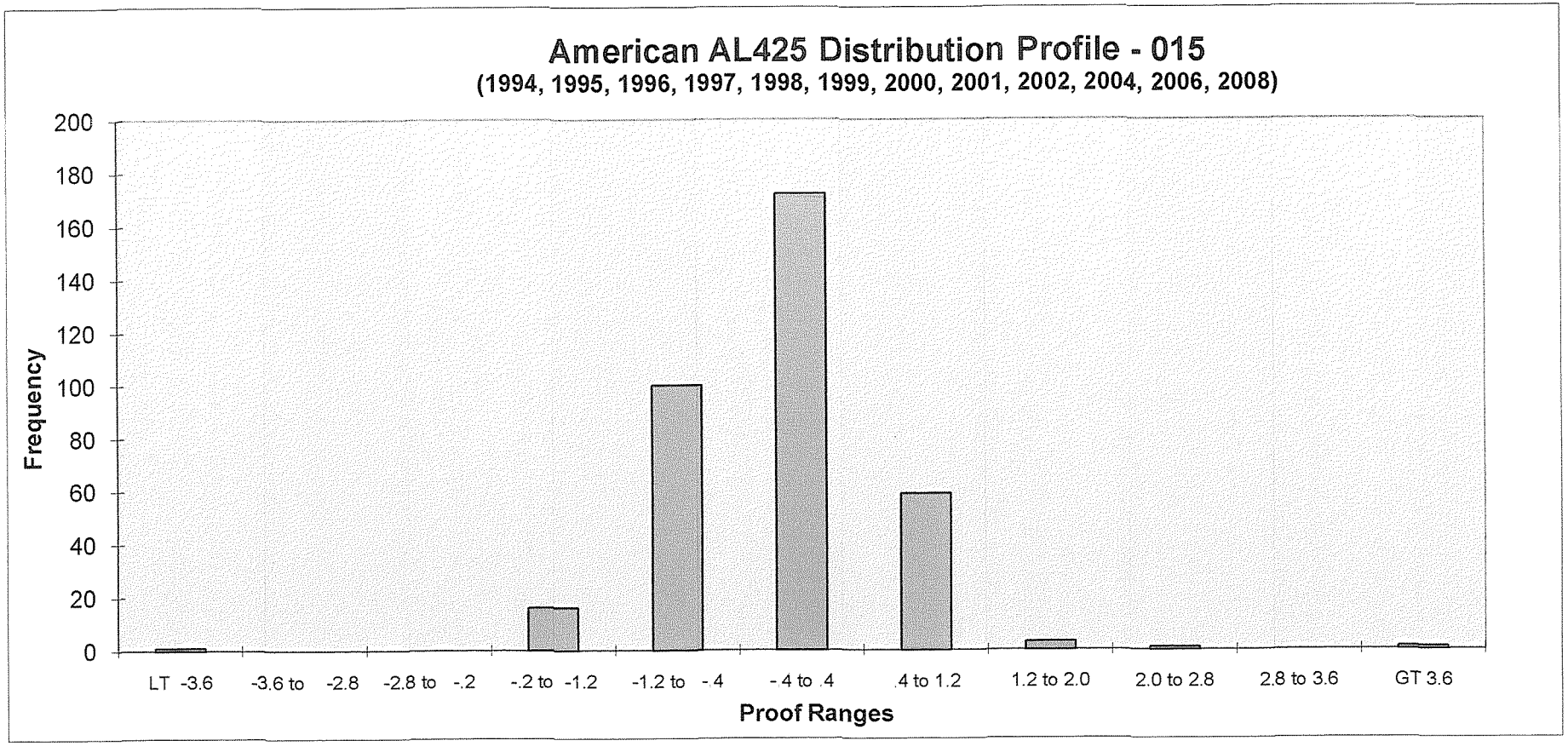
Year 2010

Meter Code 015 American AL 425

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	8
-.4 to .4	19
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	7
-.4 to .4	17
.4 to 1.2	8
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	Total
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	16
-1.2 to -.4	100
-.4 to .4	172
.4 to 1.2	59
1.2 to 2.0	3
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	1
Total	353


American AL425 Distribution Profile - 015
(1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2004, 2006, 2008)
Frequency
200
180
160
140
120
100
80
60
40
20
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Metris 250	Test Year 2010								
250 CFH	Control Group-Installed Year								
Code: 018	2000	2001	2002	2004					
Sample Plan	Single	Single	Single	Single					
Sample Size	125	80	200	200					
Original Population	1219	727	4065	4968					
# of Slow Failures	2	0	3	13					
# of Fast Failures	0	0	0	1					
Total Failures:	2	0	3	14					
Accept Level	14	10	14	14					
Reject Level	15	11	15	15					
Pass / Fail?	Pass	Pass	Pass	Pass					
If Failed - Remove By:									
Statistical Data:									
Mean (Average Proof)	0.1084	0.0925	-0.40775	-0.58					
Median	0.15	0.1	-0.425	-0.5					
Standard Deviation	1.064829	0.590918	0.789426	1.379389					
Sample Variance	1.13386	0.349184	0.623193	1.902714					
Skewness	-5.16818	0.497646	-0.01772	2.567569					
Minimum	-8.85	-1.1	-3.1	-6.6					
Maximum	2	1.85	1.6	11.45					
Count	125	80	200	200					
Confidence Level(95.0%)	0.188509	0.131502	0.110076	0.19234					

Year 2010 Meter Code 018 Metris 250

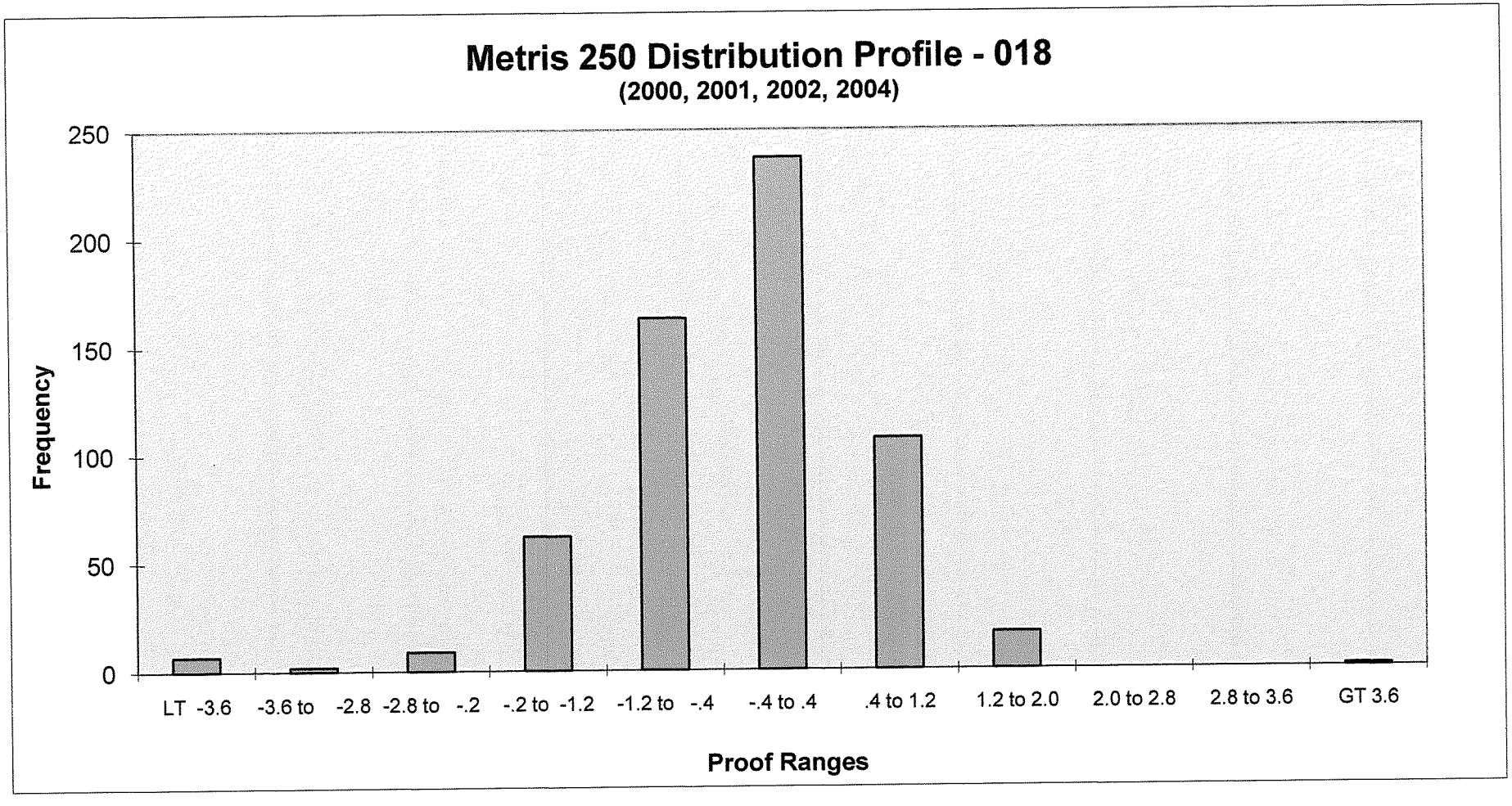
Code & Year:	2000
Data Range	Number
LT -3.6	2
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	14
-.4 to .4	63
.4 to 1.2	39
1.2 to 2.0	6
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	17
-.4 to .4	41
.4 to 1.2	19
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	2
-.2 to -1.2	23
-1.2 to -.4	74
-.4 to .4	72
.4 to 1.2	23
1.2 to 2.0	5
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	200

Code & Year:	2004
Data Range	Number
LT -3.6	5
-3.6 to -2.8	1
-2.8 to -.2	7
-.2 to -1.2	38
-1.2 to -.4	58
-.4 to .4	61
.4 to 1.2	26
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	200

Code & Year:	Total
Data Range	Number
LT -3.6	7
-3.6 to -2.8	2
-2.8 to -.2	9
-.2 to -1.2	62
-1.2 to -.4	163
-.4 to .4	237
.4 to 1.2	107
1.2 to 2.0	17
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	605

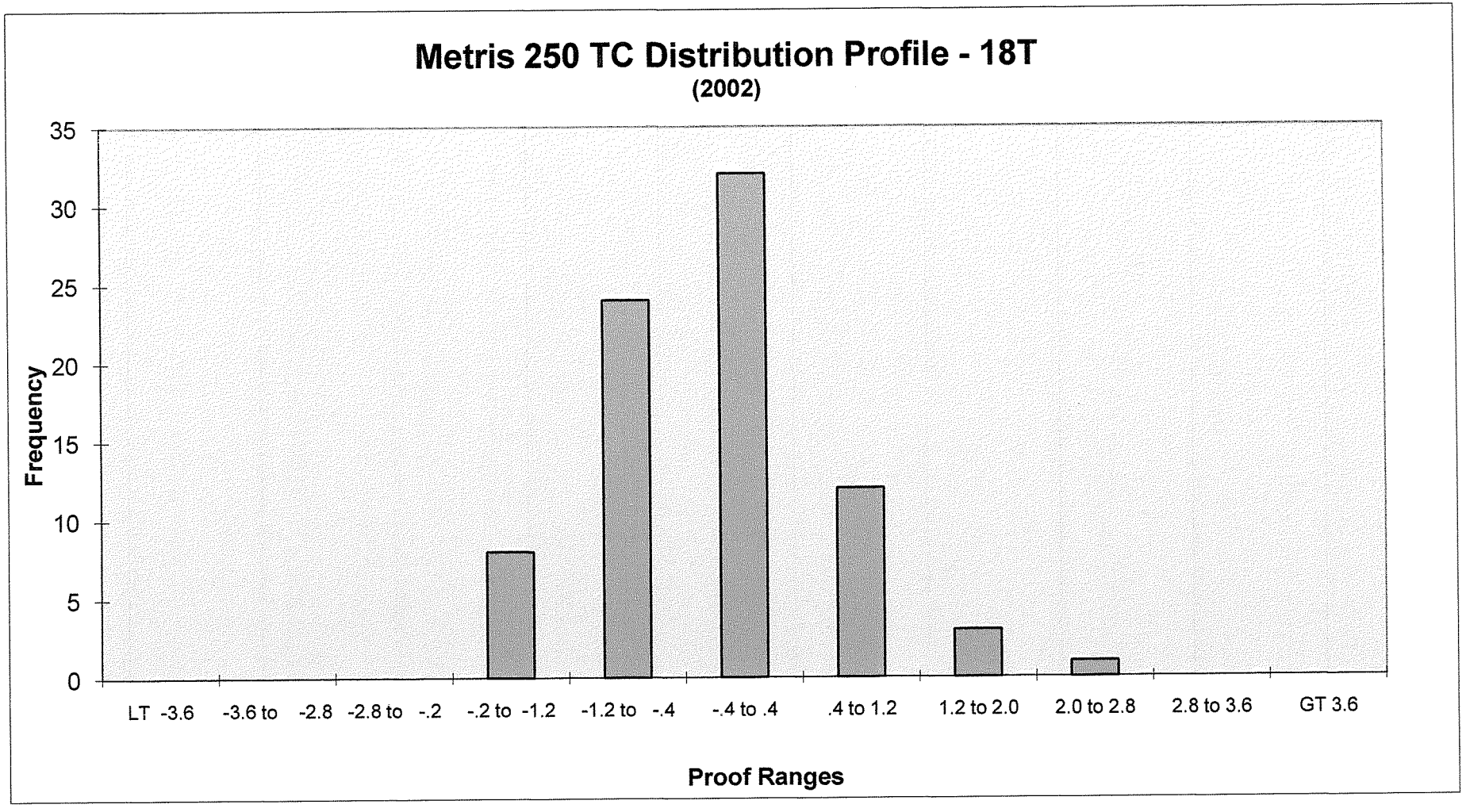

Metris 250 Distribution Profile - 018
(2000, 2001, 2002, 2004)
Frequency
250
200
150
100
50
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Metris 250 TC	Test Year 2010								
175 CFH	Control Group-Installed Year								
Code: 18T	2002								
Sample Plan	Single								
Sample Size	80								
Original Population	250								
# of Slow Failures	0								
# of Fast Failures	1								
Total Failures:	1								
Accept Level	10								
Reject Level	11								
Pass / Fail?	Pass								
If Failed - Remove By:	NA								
Statistical Data:									
Mean (Average Proof)	-0.20063								
Median	-0.275								
Standard Deviation	0.787461								
Sample Variance	0.620095								
Skewness	0.627782								
Minimum	-1.7								
Maximum	2.35								
Count	80								
Confidence Level(95.0%)	0.175241								

Year 2010 Meter Code 18T Mteris 250 TC

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	8
-1.2 to -.4	24
-.4 to .4	32
.4 to 1.2	12
1.2 to 2.0	3
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	Totals
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	8
-1.2 to -.4	24
-.4 to .4	32
.4 to 1.2	12
1.2 to 2.0	3
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	80


Metris 250 TC Distribution Profile - 18T
(2002)
Frequency
35
30
25
20
15
10
5
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Rockwell R175	Test Year 2010									
175 CFH	Control Group-Installed Year									
Code: 024	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single
Sample Size	200	200	125	200	125	200	200	200	125	125
Original Population	3910	3725	2632	3853	3180	3668	4208	4443	3154	2978
# of Slow Failures	4	4	3	2	1	4	6	8	2	4
# of Fast Failures	7	6	2	7	3	12	5	2	3	2
Total Failures:	11	10	5	9	4	16	11	10	5	6
Accept Level	21	21	14	21	14	21	21	21	14	14
Reject Level	22	22	15	22	15	22	22	22	15	15
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:										
Mean (Average Proof)	0.2585	0.22625	0.1372	0.28325	0.3568	0.39175	0.09825	-0.041	0.1356	0.1372
Median	0.25	0.275	0.05	0.3	0.45	0.475	0.05	0.1	0.15	0.1
Standard Deviation	1.064811	1.240217	0.861308	1.151744	0.845275	1.187802	2.04506	1.130735	1.048978	1.01586
Sample Variance	1.133822	1.538139	0.741851	1.326515	0.71449	1.410874	4.182271	1.278562	1.100355	1.031972
Skewness	-0.18103	-4.19664	-0.32131	1.482617	-0.60964	-1.22861	3.686562	-1.30885	-1.51787	-0.97111
Minimum	-2.7	-11.3	-2.9	-3.4	-2.45	-6.75	-11.35	-5.7	-6	-5.5
Maximum	3.1	3.2	3.05	7.9	2.65	4.5	18.95	2.5	2.9	3.95
Count	200	200	125	200	125	200	200	200	125	125
Confidence Level(95.0%)	0.148475	0.172934	0.152479	0.160597	0.149641	0.165625	0.28516	0.157668	0.185703	0.17984

Rockwell R175	Test Year 2010									
175 CFH	Control Group-Installed Year									
Code: 024	1996	1997	1998	1999	2000	2001	2002	2004	2006	2008
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	Single	Single
Sample Size	125	80	80	125	80	125	125	125	200	125
Original Population	1353	621	1045	1821	1107	1213	1677	2730	3778	2925
# of Slow Failures	4	2	2	2	0	5	3	0	5	1
# of Fast Failures	3	1	1	2	0	0	2	0	1	1
Total Failures:	7	3	3	4	0	5	5	0	6	2
Accept Level	14	10	10	14	10	14	14	14	21	14
Reject Level	15	11	11	15	11	15	15	15	22	15
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:										
Mean (Average Proof)	-0.2788	-0.0225	-0.26	0.0892	-0.10313	-0.2452	-0.0724	-0.004	0.09025	0.1248
Median	-0.25	-0.05	-0.275	0.2	-0.15	-0.1	0.05	0.05	0.25	0.2
Standard Deviation	1.019236	0.965116	0.947161	1.092101	0.704432	0.957703	1.345939	0.668279	1.156918	0.817614
Sample Variance	1.038841	0.931449	0.897114	1.192685	0.496224	0.917195	1.811551	0.446597	1.33846	0.668493
Skewness	-0.229	-0.07056	-0.18571	-2.79394	0.410374	-1.54616	-5.49587	-0.17561	-4.67552	-0.77417
Minimum	-4.25	-3	-3.1	-7.65	-1.45	-5	-11.9	-1.75	-9.55	-3.35
Maximum	3.1	2.7	2.6	2.8	2	1.4	3.1	1.7	2.05	2.2
Count	125	80	80	125	80	125	125	125	200	125
Confidence Level(95.0%)	0.180438	0.214776	0.21078	0.193337	0.156764	0.169544	0.238274	0.118307	0.161319	0.144744

Year 2010 Meter Code 024 Rockwell R175

Code & Year:	1986
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	4
-.2 to -1.2	11
-1.2 to -.4	27
-.4 to .4	71
.4 to 1.2	46
1.2 to 2.0	34
2.0 to 2.8	5
2.8 to 3.6	2
GT 3.6	0
Total	200

Code & Year:	1987
Data Range	Number
LT -3.6	2
-3.6 to -2.8	1
-2.8 to -.2	1
-.2 to -1.2	6
-1.2 to -.4	26
-.4 to .4	77
.4 to 1.2	65
1.2 to 2.0	16
2.0 to 2.8	5
2.8 to 3.6	1
GT 3.6	0
Total	200

Code & Year:	1988
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	2
-.2 to -1.2	3
-1.2 to -.4	18
-.4 to .4	54
.4 to 1.2	36
1.2 to 2.0	9
2.0 to 2.8	1
2.8 to 3.6	1
GT 3.6	0
Total	125

Code & Year:	1989
Data Range	Number
LT -3.6	0
-3.6 to -2.8	2
-2.8 to -.2	0
-.2 to -1.2	11
-1.2 to -.4	34
-.4 to .4	64
.4 to 1.2	62
1.2 to 2.0	20
2.0 to 2.8	2
2.8 to 3.6	2
GT 3.6	3
Total	200

Code & Year:	1990
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	6
-1.2 to -.4	12
-.4 to .4	39
.4 to 1.2	56
1.2 to 2.0	8
2.0 to 2.8	3
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	1991
Data Range	Number
LT -3.6	2
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	8
-1.2 to -.4	23
-.4 to .4	60
.4 to 1.2	67
1.2 to 2.0	26
2.0 to 2.8	10
2.8 to 3.6	1
GT 3.6	1
Total	200

Code & Year:	1992
Data Range	Number
LT -3.6	1
-3.6 to -2.8	1
-2.8 to -.2	4
-.2 to -1.2	21
-1.2 to -.4	44
-.4 to .4	57
.4 to 1.2	44
1.2 to 2.0	23
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	3
Total	200

Code & Year:	1993
Data Range	Number
LT -3.6	3
-3.6 to -2.8	0
-2.8 to -.2	5
-.2 to -1.2	16
-1.2 to -.4	42
-.4 to .4	64
.4 to 1.2	52
1.2 to 2.0	16
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	200

Code & Year:	1994
Data Range	Number
LT -3.6	1
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	25
-.4 to .4	49
.4 to 1.2	32
1.2 to 2.0	11
2.0 to 2.8	2
2.8 to 3.6	1
GT 3.6	0
Total	125

Code & Year:	1995
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	3
-.2 to -1.2	1
-1.2 to -.4	20
-.4 to .4	57
.4 to 1.2	33
1.2 to 2.0	8
2.0 to 2.8	0
2.8 to 3.6	1
GT 3.6	1
Total	125

Year 2010 Meter Code 024 Rockwell R175

Code & Year:	1996
Data Range	Number
LT -3.6	2
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	16
-1.2 to -.4	25
-.4 to .4	59
.4 to 1.2	15
1.2 to 2.0	3
2.0 to 2.8	1
2.8 to 3.6	2
GT 3.6	0
Total	125

Code & Year:	1997
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	1
-.2 to -1.2	6
-1.2 to -.4	16
-.4 to .4	35
.4 to 1.2	13
1.2 to 2.0	7
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1998
Data Range	Number
LT -3.6	0
-3.6 to -2.8	2
-2.8 to -.2	0
-.2 to -1.2	11
-1.2 to -.4	18
-.4 to .4	34
.4 to 1.2	11
1.2 to 2.0	3
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1999
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	5
-1.2 to -.4	25
-.4 to .4	41
.4 to 1.2	45
1.2 to 2.0	5
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	23
-.4 to .4	36
.4 to 1.2	16
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2001
Data Range	Number
LT -3.6	1
-3.6 to -2.8	1
-2.8 to -.2	3
-.2 to -1.2	13
-1.2 to -.4	20
-.4 to .4	62
.4 to 1.2	23
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	2002
Data Range	Number
LT -3.6	1
-3.6 to -2.8	1
-2.8 to -.2	1
-.2 to -1.2	4
-1.2 to -.4	26
-.4 to .4	55
.4 to 1.2	29
1.2 to 2.0	6
2.0 to 2.8	1
2.8 to 3.6	1
GT 3.6	0
Total	125

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	7
-1.2 to -.4	26
-.4 to .4	66
.4 to 1.2	22
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	125

Code & Year:	2006
Data Range	Number
LT -3.6	3
-3.6 to -2.8	1
-2.8 to -.2	1
-.2 to -1.2	3
-1.2 to -.4	20
-.4 to .4	101
.4 to 1.2	64
1.2 to 2.0	6
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	200

Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	6
-1.2 to -.4	20
-.4 to .4	55
.4 to 1.2	36
1.2 to 2.0	6
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	125

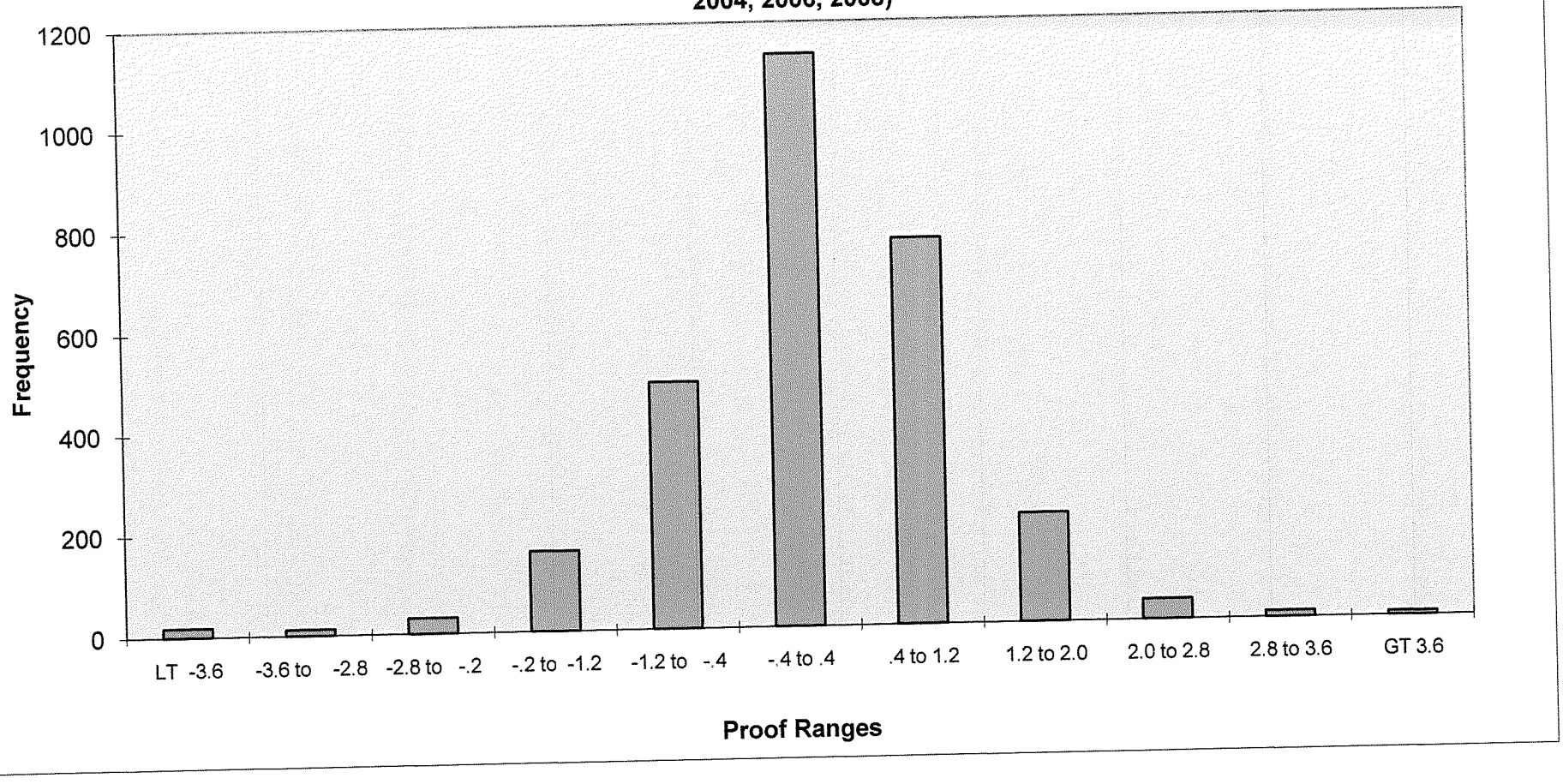
Year 2010

Meter Code 024 Rockwell R175

Code & Year:	Total
Data Range	Number
LT -3.6	18
-3.6 to -2.8	13
-2.8 to -.2	31
-.2 to -1.2	159
-1.2 to -.4	490
-.4 to .4	1136
.4 to 1.2	767
1.2 to 2.0	216
2.0 to 2.8	40
2.8 to 3.6	12
GT 3.6	8
Total	2890

Rockwell R175 Distribution Profile - 024

(1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2004, 2006, 2008)



American AL 250
250 CFH
Code: 030

Test Year 2010

	Control Group-Installed Year								
	1992								
Sampling Plan	Single								
Sample Size	32								
Original Population	59								
# of Slow Failures	2								
# of Fast Failures	0								
Total Failures:	2								
Accept Level	5								
Reject Level	6								
Pass/ Fail?	Pass								
If Failed - Remove By:	NA								
Statistical Data:									
Mean (Average Proof)	-0.30156								
Median	-0.175								
Standard Deviation	1.119439								
Sample Variance	1.253143								
Skewness	-2.08501								
Minimum	-4.35								
Maximum	1.05								
Count	32								
Confidence Level(95.0%)	0.403601								

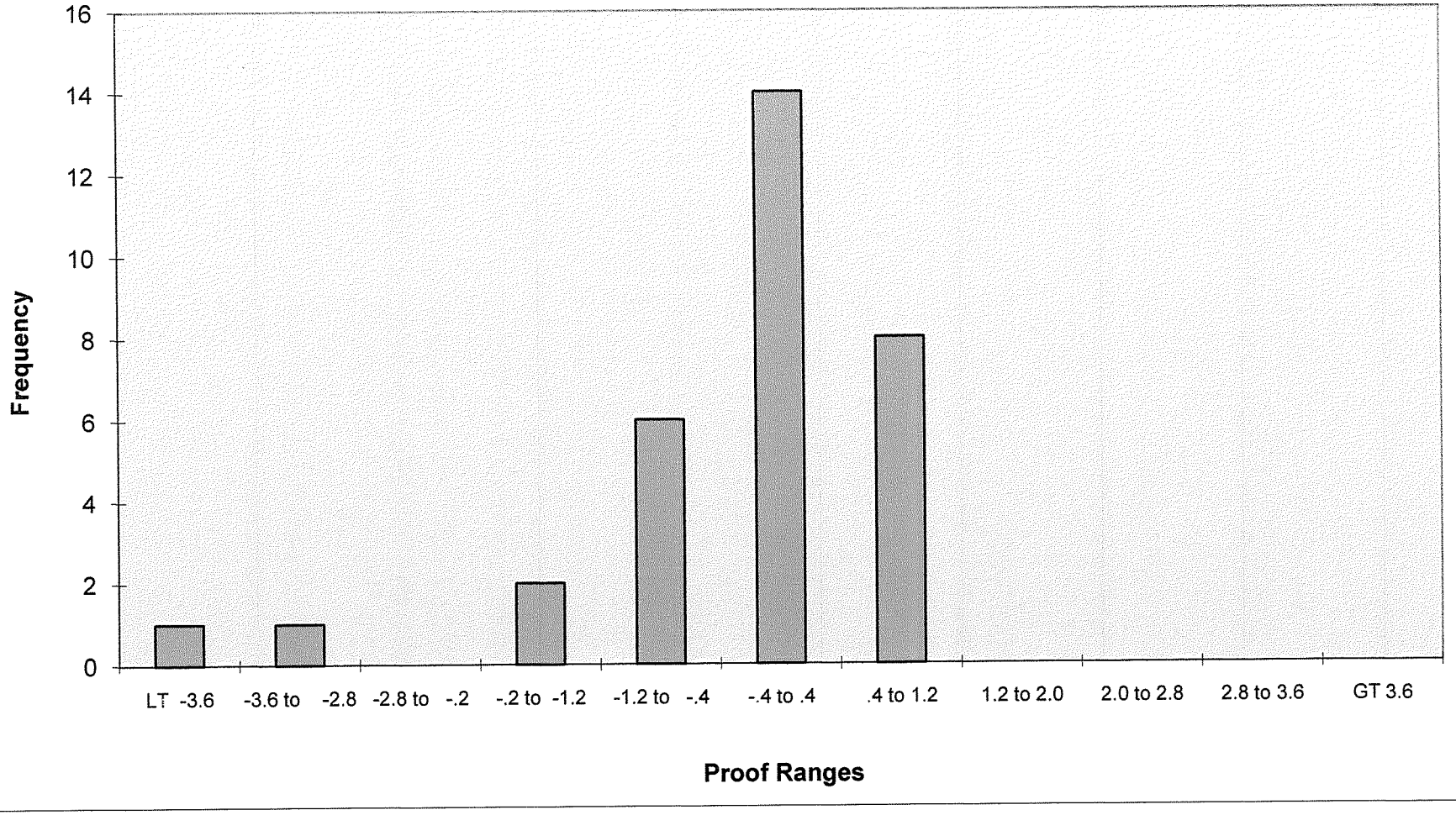
Year 2010 Meter Code 030 American AL250

Code & Year:	1992
Data Range	Number
LT -3.6	1
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	6
-.4 to .4	14
.4 to 1.2	8
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	Total
Data Range	Number
LT -3.6	1
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	6
-.4 to .4	14
.4 to 1.2	8
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

American AL250 Distribution Profile - 030

(1992)



American AL175	Test Year 2010										
175 CFH	Control Group-Installed Year										
Code: 033	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	32	50	32	80	50	80	80	80	80	80	80
Original Population	1158	1795	846	3594	2184	6427	7866	7626	7685	7976	7948
# of Slow Failures	0	0	0	1	1	0	0	2	1	1	0
# of Fast Failures	0	1	0	0	0	0	3	0	2	1	0
Total Failures:	0	1	0	1	1	0	3	2	3	2	0
Accept Level	5	7	5	10	7	10	10	10	10	10	10
Reject Level	8	10	8	13	10	13	13	13	13	13	13
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:											
Mean (Average Proof)	0.276563	0.065	0.254688	0.195	0.325	0.279375	0.62375	0.225625	0.396875	0.234375	0.08
Median	0.1	0.1	0.25	0.2	0.3	0.25	0.65	0.275	0.4	0.15	0.2
Standard Deviation	0.710745	0.844445	0.603533	0.592442	0.524915	0.608052	0.92082	0.864233	0.809608	1.224114	0.671603
Sample Variance	0.505159	0.713087	0.364252	0.350987	0.275536	0.369727	0.84791	0.746898	0.655465	1.498455	0.451051
Skewness	0.102723	1.66073	-0.40971	-0.33719	-0.757	-0.37655	1.547507	-1.40098	0.128155	5.786249	-0.29851
Minimum	-1.4	-2	-1.75	-2.05	-1.55	-1.65	-1.85	-3.3	-2.65	-2.05	-1.65
Maximum	1.85	4.05	2	1.65	1.3	1.7	5.45	1.75	3.65	9.65	1.85
Count	32	50	32	80	50	80	80	80	80	80	80
Confidence Level(95.0%)	0.256251	0.239989	0.217597	0.131841	0.149179	0.135315	0.204918	0.192326	0.180169	0.272413	0.149458

American AL175	Test Year 2010									
175 CFH	Control Group-Installed Year									
Code: 033	1996	1997	1998	1999	2000	2001	2002	2004	2006	2008
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	80	80	80	80	80	80	50	50	50	50
Original Population	5107	983	5631	8378	7676	4471	2740	2142	1456	2051
# of Slow Failures	0	1	1	0	1	0	0	1	0	1
# of Fast Failures	0	1	1	1	0	1	0	0	0	1
Total Failures:	0	2	2	1	1	1	0	1	0	2
Accept Level	10	10	10	10	10	10	7	7	7	7
Reject Level	13	13	13	13	13	13	10	10	10	10
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:										
Mean (Average Proof)	0.1275	-0.05125	-0.18375	-0.0275	0.12375	-0.09187	-0.142	-0.283	-0.074	0.101
Median	0.1	-0.05	-0.225	-0.15	0.15	-0.025	-0.175	-0.35	-0.075	0.1
Standard Deviation	0.578075	0.97643	0.804881	0.777162	0.73991	0.630774	0.52957	0.607068	0.578989	1.029736
Sample Variance	0.334171	0.953416	0.647834	0.603981	0.547467	0.397876	0.280445	0.368532	0.335229	1.060356
Skewness	0.310657	1.052969	-0.32582	3.659207	-1.80804	-0.00886	-0.14465	0.572234	0.52202	3.667418
Minimum	-1.1	-3	-4.35	-1.3	-3.9	-1.55	-1.45	-2.15	-1.15	-2.3
Maximum	1.8	4.65	3.65	5.1	2	2.15	0.85	1.65	2	6
Count	80	80	80	80	80	80	50	50	50	50
Confidence Level(95.0%)	0.128644	0.217294	0.179118	0.172949	0.164659	0.140372	0.150502	0.172527	0.164547	0.292648

Year 2010

Meter Code 033 American AL175

Code & Year:	1985
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	4
-.4 to .4	15
.4 to 1.2	8
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1986
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	7
-.4 to .4	27
.4 to 1.2	12
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	50

Code & Year:	1987
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	0
-.4 to .4	17
.4 to 1.2	13
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1988
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	1
-1.2 to -.4	5
-.4 to .4	51
.4 to 1.2	15
1.2 to 2.0	7
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1989
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	2
-.4 to .4	28
.4 to 1.2	18
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	1990
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	6
-.4 to .4	36
.4 to 1.2	32
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1991
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	5
-.4 to .4	21
.4 to 1.2	38
1.2 to 2.0	11
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	1
Total	80

Code & Year:	1992
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	1
-.2 to -1.2	2
-1.2 to -.4	8
-.4 to .4	34
.4 to 1.2	27
1.2 to 2.0	7
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1993
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	2
-1.2 to -.4	3
-.4 to .4	37
.4 to 1.2	27
1.2 to 2.0	8
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	1
Total	80

Code & Year:	1994
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	1
-1.2 to -.4	8
-.4 to .4	49
.4 to 1.2	17
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	80

Year 2010

Meter Code 033 American AL175

Code & Year:	1995
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	19
-.4 to .4	31
.4 to 1.2	27
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	14
-.4 to .4	46
.4 to 1.2	18
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1997
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	5
-1.2 to -.4	20
-.4 to .4	36
.4 to 1.2	12
1.2 to 2.0	5
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	80

Code & Year:	1998
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	23
-.4 to .4	46
.4 to 1.2	9
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	80

Code & Year:	1999
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	16
-.4 to .4	45
.4 to 1.2	15
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	80

Code & Year:	2000
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	7
-.4 to .4	48
.4 to 1.2	20
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	6
-1.2 to -.4	17
-.4 to .4	40
.4 to 1.2	16
1.2 to 2.0	0
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	16
-.4 to .4	26
.4 to 1.2	7
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	1
-1.2 to -.4	19
-.4 to .4	26
.4 to 1.2	1
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

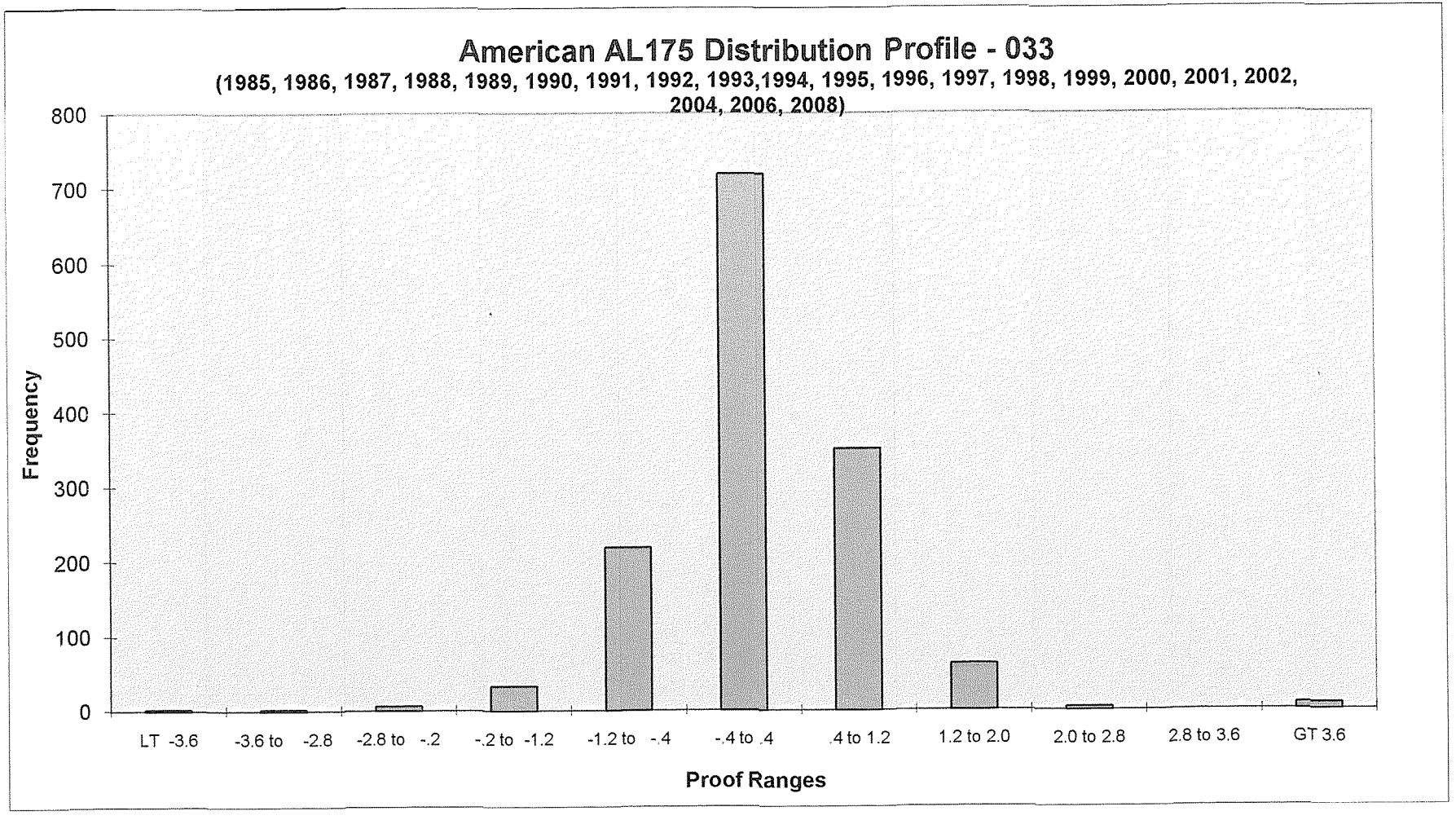
Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	10
-.4 to .4	31
.4 to 1.2	8
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Year 2010

Meter Code 033 American AL175

Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	0
-1.2 to -.4	9
-.4 to .4	29
.4 to 1.2	10
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	50

Code & Year:	Total
Data Range	Number
LT -3.6	2
-3.6 to -2.8	2
-2.8 to -.2	6
-.2 to -1.2	33
-1.2 to -.4	218
-.4 to .4	719
.4 to 1.2	350
1.2 to 2.0	62
2.0 to 2.8	4
2.8 to 3.6	0
GT 3.6	8
Total	1404


American AL175 Distribution Profile - 033
(1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993,1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2004, 2006, 2008)
Frequency
800
700
600
500
400
300
200
100
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

American AL175
175 CFH
Code: 33A

Test Year 2010

	Control Group-Installed Year								
	1992	**1993**	**1994**	**1997**					
Sample Plan	Reduced	Reduced	Reduced	Reduced					
Sample Size	80	50	50	2					
Original Population	5038	1995	2592	3*					
# of Slow Failures	0	1	0	0					
# of Fast Failures	0	0	0	0					
Total Failures:	0	1	0	0					
Accept Level	10	7	7	0					
Reject Level	13	10	10	1					
Pass / Fail?	Pass	Pass	Pass	Pass					
If Failed - Remove By:	NA	NA	NA	Exhaust					
Statistical Data:									
Mean (Average Proof)	0.16125	0.256	0.059	-0.2					
Median	0.2	0.25	0.025	-0.2					
Standard Deviation	0.663324	0.71832	0.647813	0.848528					
Sample Variance	0.439998	0.515984	0.419662	0.72					
Skewness	-0.62662	-1.23256	0.076368	NA					
Minimum	-1.95	-2.7	-1.65	-0.8					
Maximum	1.75	1.55	1.6	0.4					
Count	80	50	50	2					
Confidence Level(95.0%)	0.147615	0.204144	0.184107	7.623723					

* Population less than required 32 minimum sample size - all meters to be changed - Single Sampling Plan for Normal Inspection used to obtain sample size to determine if control group passed or failed.

Year 2010

Meter Code 33A American AL175

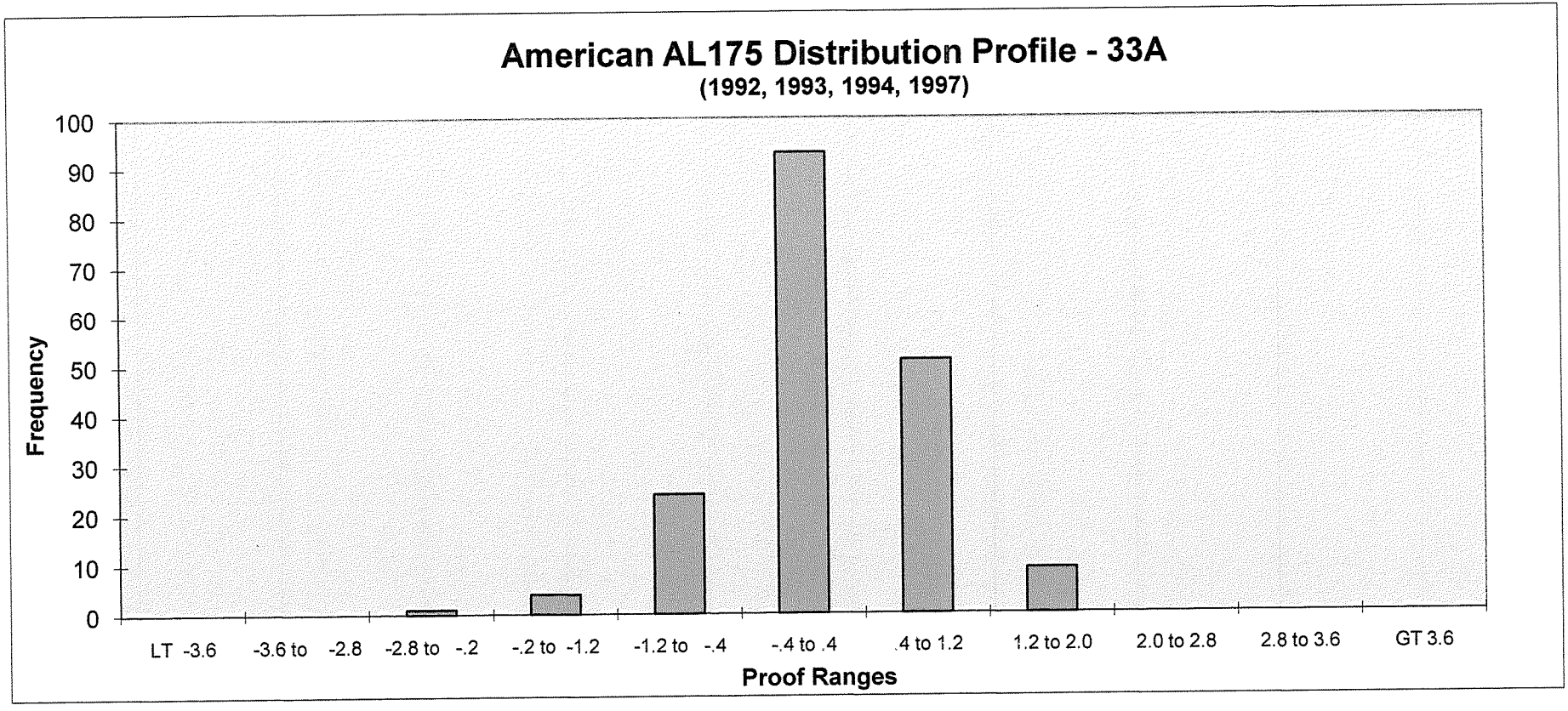
Code & Year:	1992
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	10
-.4 to .4	40
.4 to 1.2	24
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1993
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	0
-1.2 to -.4	4
-.4 to .4	24
.4 to 1.2	18
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	1994
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	9
-.4 to .4	28
.4 to 1.2	9
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	1997
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	4
-1.2 to -.4	24
-.4 to .4	93
.4 to 1.2	51
1.2 to 2.0	9
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	182


American AL175 Distribution Profile - 33A
(1992, 1993, 1994, 1997)
Frequency
100
90
80
70
60
50
40
30
20
10
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

American 5B225	Test Year 2010							
225 CFH	Control Group-Installed Year							
Code: 041	1986	1988	1989	1990	1995	1996		
Sample Plan	Single	Single	Single	Single	Single	Single		
Sample Size	32	1	8	2	32	32		
Original Population	40	1*	25*	12*	122	203		
# of Slow Failures	1	0	0	0	0	1		
# of Fast Failures	0	0	1	0	0	0		
Total Failures:	1	0	1	0	0	1		
Accept Level	5	0	1	0	5	5		
Reject Level	6	1	2	1	6	6		
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass		
If Failed - Remove By:	NA	Exhaust	NA	NA	NA	NA		
Statistical Data:								
Mean (Average Proof)	-0.03125	-0.15	0.35	-0.175	-0.0125	-0.46719		
Median	0.025	-0.15	0.125	-0.175	0.025	-0.45		
Standard Deviation	0.8554144	NA	1.172908	1.166726	0.494812	0.623803		
Sample Variance	0.7317339	NA	1.375714	1.36125	0.244839	0.389131		
Skewness	-0.568937	NA	2.075943	NA	0.102939	-0.43889		
Minimum	-2.25	-0.15	-0.8	-1	-0.85	-2.25		
Maximum	1.8	-0.15	3.05	0.65	1.15	0.75		
Count	32	1	8	2	32	32		
Confidence Level(95.0%)	0.3084098	NA	0.980576	10.48262	0.178399	0.224905		

* Population less than required 32 minimum sample size - all meters to be changed - Single Sampling Plan for Normal Inspection used to obtain sample size to determine if control group passed or failed.

Year 2010

Meter Code 041 American 5B-225

Code & Year:	1986
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	2
-1.2 to -.4	5
-.4 to .4	14
.4 to 1.2	9
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1988
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	1

Code & Year:	1989
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	5
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	1
GT 3.6	0
Total	8

Code & Year:	1990
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

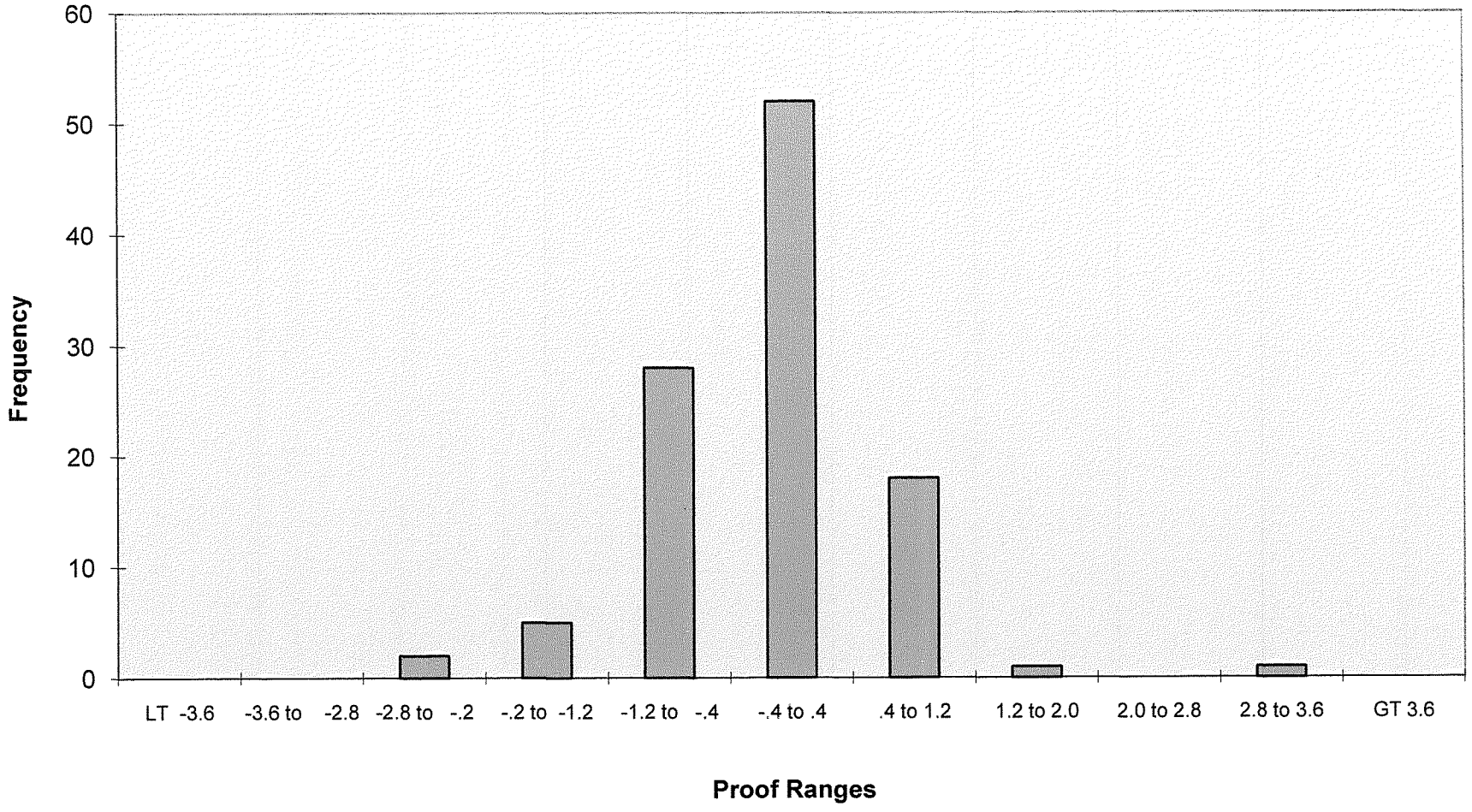
Code & Year:	1995
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	7
-.4 to .4	19
.4 to 1.2	6
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	3
-1.2 to -.4	13
-.4 to .4	13
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	5
-1.2 to -.4	28
-.4 to .4	52
.4 to 1.2	18
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	1
GT 3.6	0
Total	107

American 5B225 Distribution Profile - 041

(1986, 1988, 1989, 1990, 1995, 1996)



Rockwell R250	Test Year 2010								
250 CFH	Control Group-Installed Year								
Code: 057	1990	1995							
Sample Plan	Single	Single							
Sample Size	50	32							
Original Population	305	150							
# of Slow Failures	4	5							
# of Fast Failures	2	0							
Total Failures:	6	5							
Accept Level	7	5							
Reject Level	8	6							
Pass / Fail?	Pass	Pass							
If Failed - Remove By:	NA	NA							
Statistical Data:									
Mean (Average Proof)	0.001	-0.01875							
Median	0.525	0.45							
Standard Deviation	1.653182	1.341325							
Sample Variance	2.733009	1.799153							
Skewness	-1.74066	-1.10479							
Minimum	-5.15	-3.3							
Maximum	2.35	1.95							
Count	50	32							
Confidence Level(95.0%)	0.469829	0.483599							

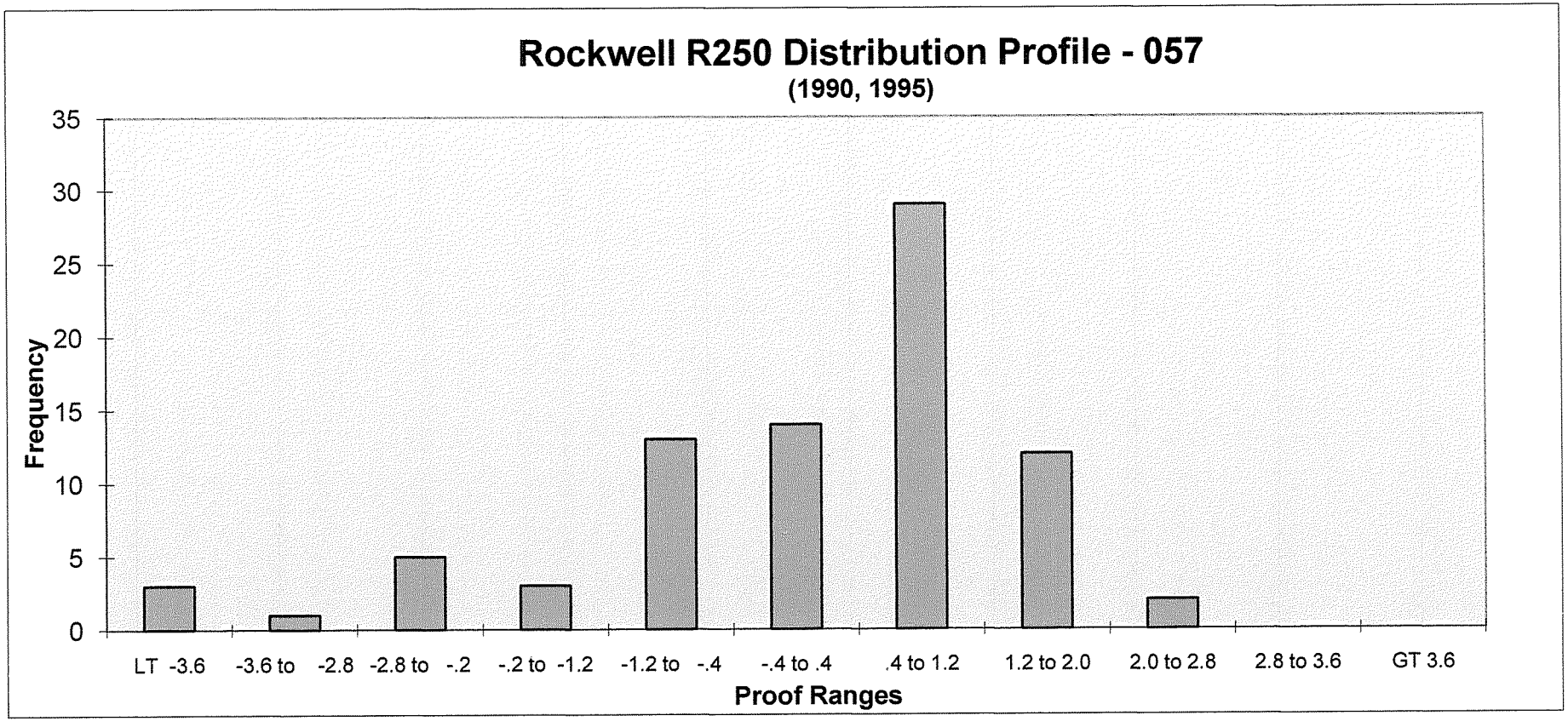
Year 2010

Meter Code 057 Rockwell R250

Code & Year:	1990
Data Range	Number
LT -3.6	3
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	2
-1.2 to -.4	10
-.4 to .4	9
.4 to 1.2	15
1.2 to 2.0	8
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	1995
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	4
-.2 to -1.2	1
-1.2 to -.4	3
-.4 to .4	5
.4 to 1.2	14
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	Total
Data Range	Number
LT -3.6	3
-3.6 to -2.8	1
-2.8 to -.2	5
-.2 to -1.2	3
-1.2 to -.4	13
-.4 to .4	14
.4 to 1.2	29
1.2 to 2.0	12
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	82


Rockwell R250 Distribution Profile - 057
(1990, 1995)
Frequency
35
30
25
20
15
10
5
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

American AC250	Test Year 2010										
250 CFH	Control Group-Installed Year										
Code: 078	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	32	80	80	80	50	80	50	32	32	50	80
Original Population	897	4046	3494	4057	3084	4379	2656	42	610	2300	4369
# of Slow Failures	0	0	0	0	1	0	0	0	0	0	0
# of Fast Failures	0	0	0	0	0	2	0	1	0	0	2
Total Failures:	0	0	0	0	1	2	0	1	0	0	2
Accept Level	5	10	10	10	7	10	7	5	5	7	10
Reject Level	8	13	13	13	10	13	10	8	8	10	13
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:											
Mean (Average Proof)	0.190625	0.176875	-0.2025	-0.04313	-0.458	0.095	-0.612	0.154688	0.44375	0.087	0.296875
Median	0.225	0.15	-0.2	-0.025	-0.35	0.075	-0.675	0.25	0.525	0.15	0.25
Standard Deviation	0.57648	0.581571	0.563044	0.502572	0.546824	0.696583	0.540744	0.66942	0.641162	0.496293	0.842327
Sample Variance	0.332329	0.338224	0.317019	0.252579	0.299016	0.485228	0.292404	0.448122	0.411089	0.246307	0.709515
Skewness	-0.49471	0.059834	0.25605	-0.20703	-1.56323	0.978642	-0.08321	0.316838	-0.11809	-0.05549	3.260054
Minimum	-1.35	-1.05	-1.45	-1.3	-2.6	-1.35	-2	-1.4	-1.2	-1.5	-1.2
Maximum	1.25	1.65	1.25	1.15	0.45	2.95	0.55	2.15	1.75	1.8	4.9
Count	32	80	80	80	50	80	50	32	32	50	80
Confidence Level(95.0%)	0.207843	0.129422	0.125299	0.111842	0.155406	0.155017	0.153678	0.241351	0.231164	0.141045	0.187451

American AC250	Test Year 2010									
250 CFH	Control Group-Installed Year									
Code: 078	1996	1997	1998	1999	2000	2001	2002	2004	2006	2008
Sample Plan	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced	Reduced
Sample Size	80	80	80	80	80	80	50	80	80	80
Original Population	9310	8581	6489	4701	5595	5392	2410	3905	6357	6998
# of Slow Failures	0	0	0	0	0	1	0	0	0	0
# of Fast Failures	0	0	0	0	0	0	0	1	0	0
Total Failures:	0	0	0	0	0	1	0	1	0	0
Accept Level	10	10	10	10	10	10	7	10	10	10
Reject Level	13	13	13	13	13	13	10	13	13	13
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Statistical Data:										
Mean (Average Proof)	0.2025	0.15125	0.210625	0.084375	0.206875	0.211875	0.124	0.59	0.440625	0.305
Median	0.2	0.1	0.2	0.1	0.175	0.25	0.1	0.575	0.4	0.325
Standard Deviation	0.428413	0.5125	0.421847	0.46488	0.483902	0.504865	0.366901	0.646138	0.506733	0.401469
Sample Variance	0.183538	0.262657	0.177955	0.216114	0.234161	0.254889	0.134616	0.417494	0.256778	0.161177
Skewness	0.243417	0.446275	0.070849	-0.42244	0.241478	-2.11741	0.504179	0.31182	0.187703	-0.31636
Minimum	-0.85	-1.05	-0.7	-1.2	-1.2	-2.55	-0.55	-0.8	-1	-0.9
Maximum	1.25	1.65	1.3	1.1	1.55	1	1.05	2.15	1.95	1.3
Count	80	80	80	80	80	80	50	80	80	80
Confidence Level(95.0%)	0.095339	0.114051	0.093878	0.103454	0.107687	0.112352	0.104272	0.143791	0.112768	0.089343

Year 2010

Meter Code 078 American AC250

Code & Year:	1985
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	3
-.4 to .4	15
.4 to 1.2	12
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1986
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	10
-.4 to .4	47
.4 to 1.2	20
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1987
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	26
-.4 to .4	43
.4 to 1.2	7
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1988
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	15
-.4 to .4	50
.4 to 1.2	13
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1989
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	2
-1.2 to -.4	19
-.4 to .4	27
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	1990
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	15
-.4 to .4	42
.4 to 1.2	17
1.2 to 2.0	2
2.0 to 2.8	1
2.8 to 3.6	1
GT 3.6	0
Total	80

Code & Year:	1991
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	7
-1.2 to -.4	24
-.4 to .4	18
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	1992
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	7
-.4 to .4	13
.4 to 1.2	10
1.2 to 2.0	0
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1993
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	14
-.4 to .4	13
.4 to 1.2	0
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	1994
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	5
-.4 to .4	37
.4 to 1.2	6
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Year 2010

Meter Code 078 American AC250

Code & Year:	1995
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	8
-.4 to .4	43
.4 to 1.2	25
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	2
Total	80

Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	5
-.4 to .4	53
.4 to 1.2	21
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1997
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	8
-.4 to .4	50
.4 to 1.2	20
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1998
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	5
-.4 to .4	50
.4 to 1.2	23
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	1999
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	9
-.4 to .4	51
.4 to 1.2	20
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	5
-.4 to .4	55
.4 to 1.2	17
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	0
-1.2 to -.4	3
-.4 to .4	49
.4 to 1.2	27
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	39
.4 to 1.2	9
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	4
-.4 to .4	25
.4 to 1.2	40
1.2 to 2.0	10
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	80

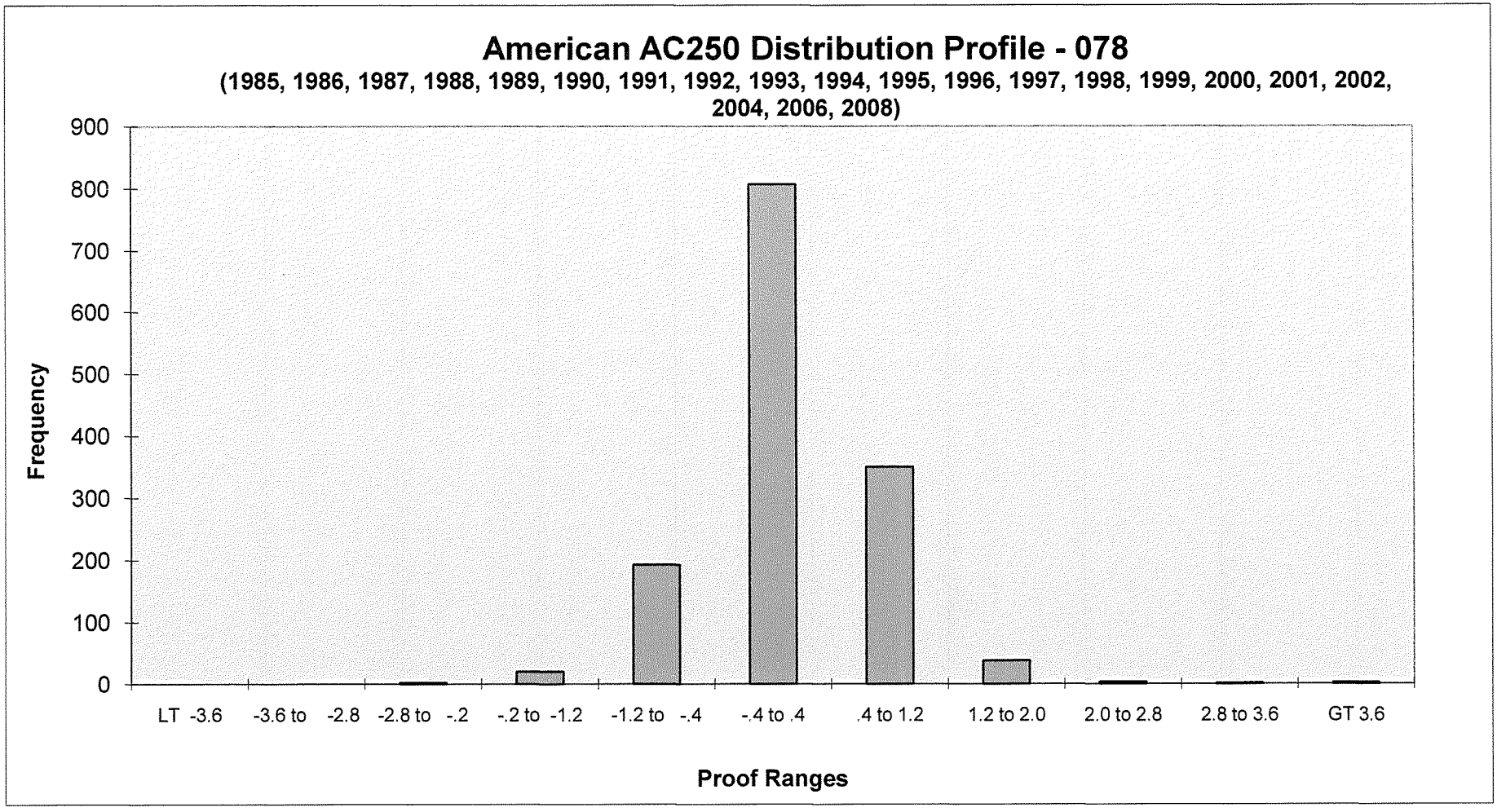
Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	3
-.4 to .4	40
.4 to 1.2	32
1.2 to 2.0	5
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Year 2010

Meter Code 078 American AC250

Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	3
-.4 to .4	47
.4 to 1.2	29
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	80

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	20
-1.2 to -.4	193
-.4 to .4	807
.4 to 1.2	350
1.2 to 2.0	38
2.0 to 2.8	3
2.8 to 3.6	1
GT 3.6	2
Total	1416


American AC250 Distribution Profile - 078
(1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2004, 2006, 2008)
Frequency
900
800
700
600
500
400
300
200
100
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

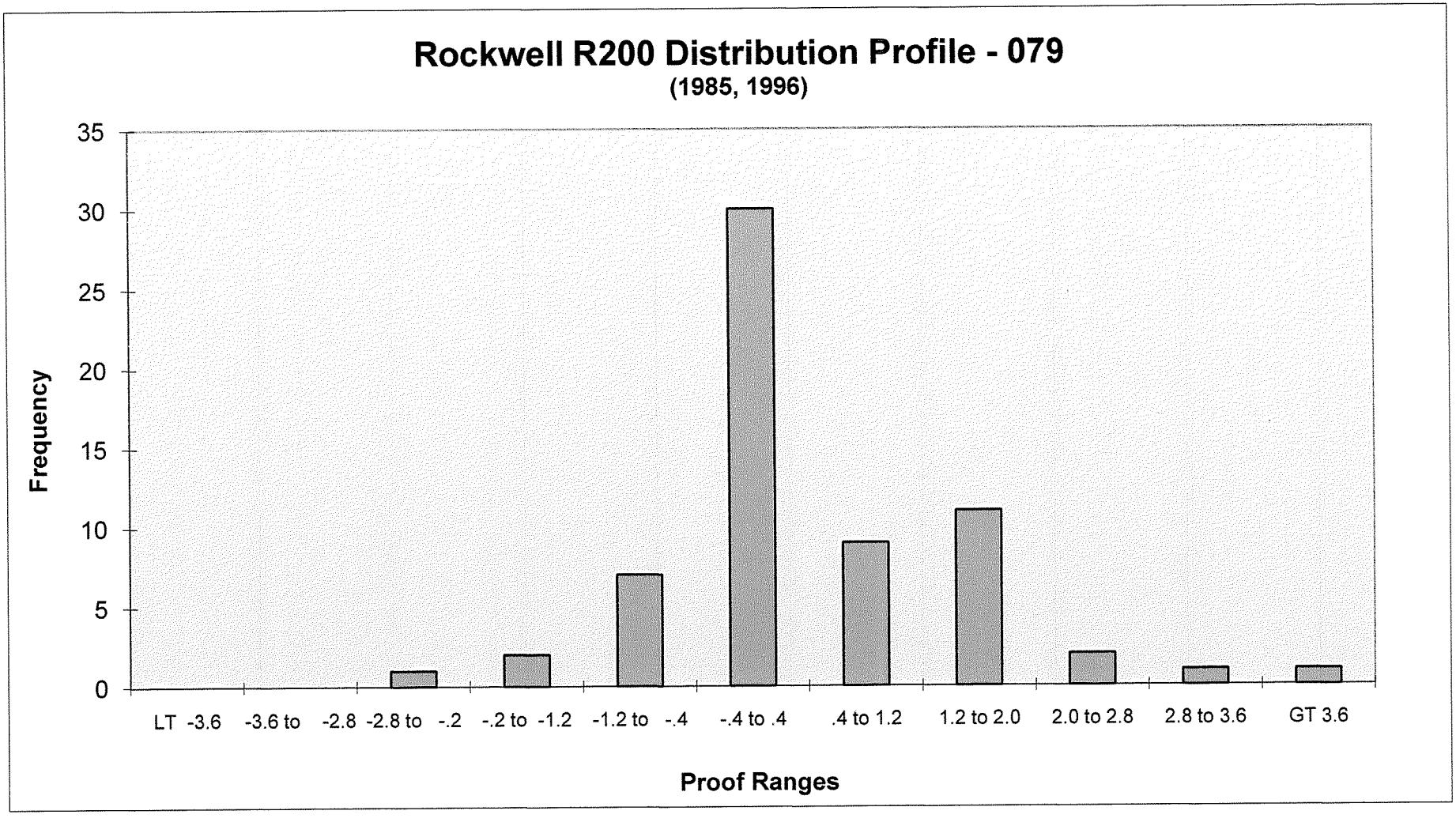
Rockwell R200	Test Year 2010								
200 CFH	Control Group-Installed Year								
Code: 079	1985	1996							
Sample Plan	Single	Single							
Sample Size	32	32							
Original Population	171	146							
# of Slow Failures	1	0							
# of Fast Failures	4	0							
Total Failures:	5	0							
Accept Level	5	5							
Reject Level	6	6							
Pass/ Fail?	Pass	Pass							
If Failed - Remove By:	NA	NA							
Statistical Data:									
Mean (Average Proof)	0.864063	-0.05781							
Median	0.825	-0.125							
Standard Deviation	1.241113	0.805136							
Sample Variance	1.54036	0.648243							
Skewness	0.260869	0.701878							
Minimum	-2.35	-1.7							
Maximum	4.25	2							
Count	32	32							
Confidence Level(95.0%)	0.447469	0.290282							

Year 2010 Meter Code 079 Rockwell R200

Code & Year:	1985
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	12
.4 to 1.2	6
1.2 to 2.0	8
2.0 to 2.8	2
2.8 to 3.6	1
GT 3.6	1
Total	32

Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	6
-.4 to .4	18
.4 to 1.2	3
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	2
-1.2 to -.4	7
-.4 to .4	30
.4 to 1.2	9
1.2 to 2.0	11
2.0 to 2.8	2
2.8 to 3.6	1
GT 3.6	1
Total	64


Rockwell R200 Distribution Profile - 079
(1985, 1996)
Frequency
35
30
25
20
15
10
5
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

American AL1000	Test Year 2010								
1000 CFH	Control Group-Installed Year								
Code: 014	2000	2001	2002	2003	2004	2005	2006	2008	
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	
Sample Size	20*	20	8	32	32	50	50	50	
Original Population	96	145	28	154	280	361	337	456	
# of Slow Failures	1	0	0	3	2	5	1	2	
# of Fast Failures	0	1	0	0	0	0	0	0	
Total Failures:	1	1	0	3	2	5	1	2	
Accept Level	3	3	1	5	5	7	7	7	
Reject Level	4	4	2	6	6	8	8	8	
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	
If Failed - Remove By:	Exhaust	NA	NA	NA	NA	NA	NA	NA	
Statistical Data:									
Mean (Average Proof)	-0.39	0.6125	-0.86875	-0.73594	-0.34844	-0.512	-0.286	-0.252	
Median	-0.5	0.65	-0.5	-0.725	-0.35	-0.35	-0.1	-0.275	
Standard Deviation	0.975165	0.869191	0.703023	0.984741	0.843713	1.04073	0.910093	0.992932	
Sample Variance	0.950947	0.755493	0.494241	0.969715	0.711852	1.083118	0.828269	0.985914	
Skewness	-0.00942	-0.15662	-1.09445	-0.16841	-0.5862	-0.47562	-0.68208	-0.00138	
Minimum	-2.55	-1.1	-2	-2.9	-2.65	-3.05	-3.15	-2.45	
Maximum	1.4	2.2	-0.25	1.2	1.2	1.1	1.55	1.8	
Count	20	20	8	32	32	50	50	50	
Confidence Level(95.0%)	0.456391	0.406794	0.587742	0.355037	0.304191	0.295772	0.258646	0.282188	

* Control group in 10th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to determine if group passed/failed in it's last year of service.

Year 2010

Meter Code 014 American AL1000

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	3
-1.2 to -.4	7
-.4 to .4	6
.4 to 1.2	1
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	3
-.4 to .4	6
.4 to 1.2	6
1.2 to 2.0	4
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	4
-.4 to .4	2
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	2
-2.8 to -.2	1
-.2 to -1.2	6
-1.2 to -.4	13
-.4 to .4	6
.4 to 1.2	4
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

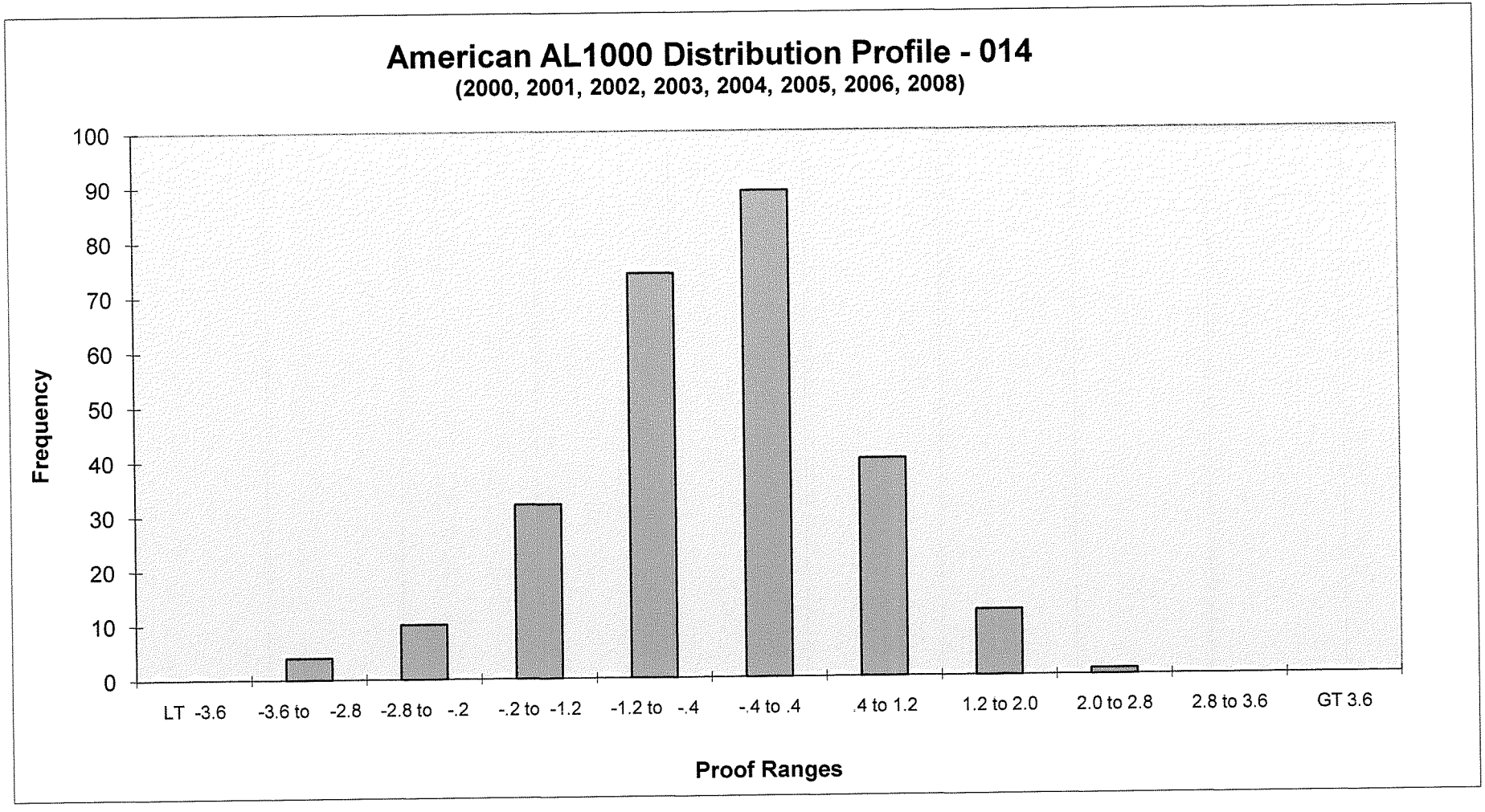
Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	2
-1.2 to -.4	10
-.4 to .4	15
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	4
-.2 to -1.2	6
-1.2 to -.4	13
-.4 to .4	15
.4 to 1.2	11
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	6
-1.2 to -.4	12
-.4 to .4	21
.4 to 1.2	8
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	7
-1.2 to -.4	12
-.4 to .4	18
.4 to 1.2	7
1.2 to 2.0	4
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	4
-2.8 to -.2	10
-.2 to -1.2	32
-1.2 to -.4	74
-.4 to .4	89
.4 to 1.2	40
1.2 to 2.0	12
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	262


American AL1000 Distribution Profile - 014
(2000, 2001, 2002, 2003, 2004, 2005, 2006, 2008)
Frequency
100
90
80
70
60
50
40
30
20
10
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Actaris 800A	Test Year 2010								
800 CFH	Control Group-Installed Year								
Code 016	2002								
Sample Plan	Single								
Sample Size	8								
Original Population	49								
# of Slow Failures	0								
# of Fast Failures	0								
Total Failures:	0								
Acept Level	1								
Reject Level	2								
Pass / Fail ?	Pass								
If Failed - Remove By:	NA								
Statistical Data:									
Mean (Average Proof)	0.34375								
Median	0.275								
Standard Deviation	0.691498								
Sample Variance	0.47817								
Skewness	-0.68198								
Minimum	-0.95								
Maximum	1.15								
Count	8								
Confidence Level(95.0%)	0.578107								

Year 2010

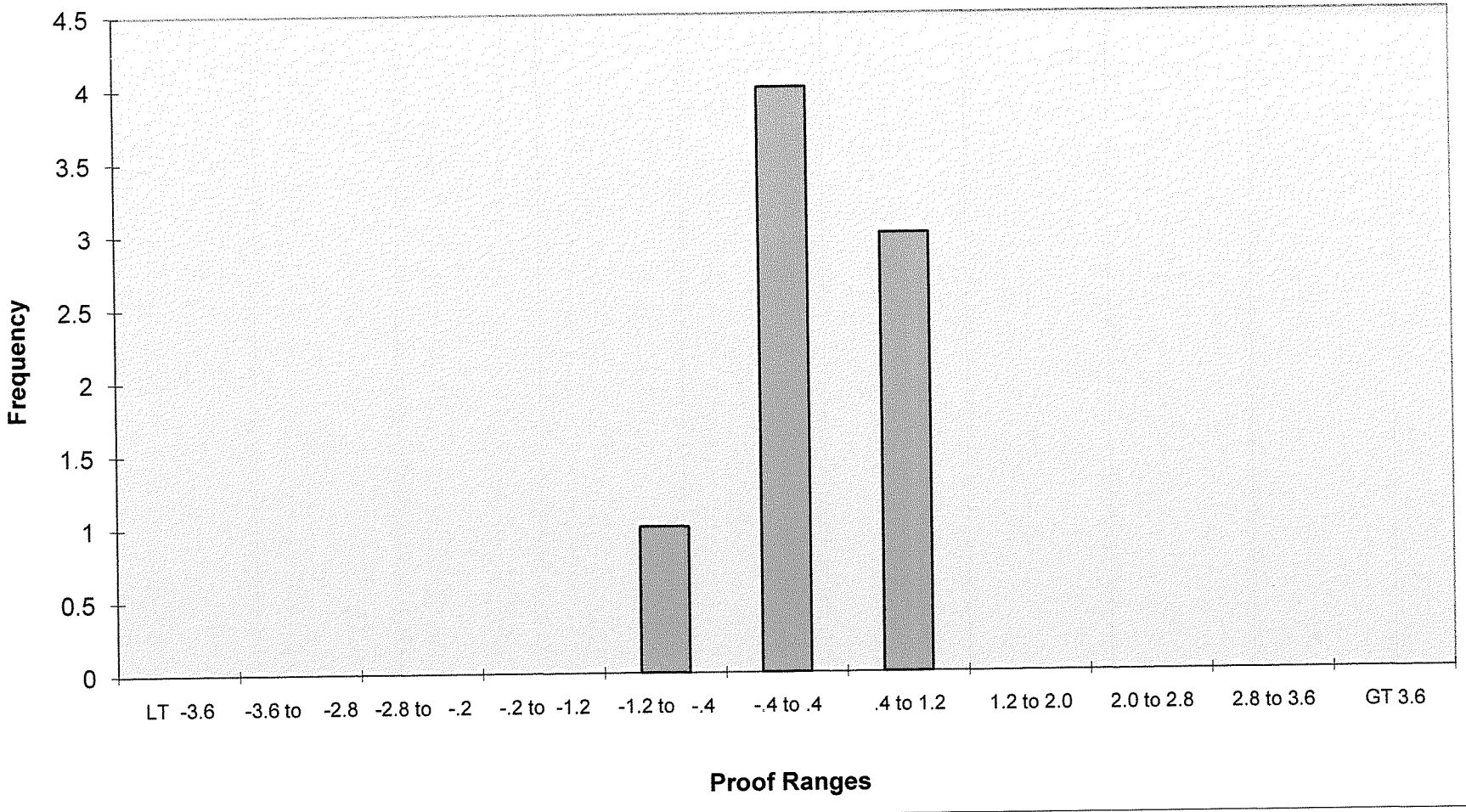
Meter Code 016 Actaris 800A

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	4
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	4
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Actaris 800A Distribution Profile - 016

(2002)



Actaris 1000A	Test Year 2010								
1000 CFH	Control Group-Installed Year								
Code 017	2002	2003							
Sample Plan	Single	Single							
Sample Size	13	2							
Original Population	56	6							
# of Slow Failures	1	0							
# of Fast Failures	0	0							
Total Failures:	1	0							
Accept Level	2	0							
Reject Level	3	1							
Pass / Fail ?	Pass	Pass							
If Failed - Remove By:	NA	NA							
Statistical Data:									
Mean (Average Proof)	-0.45	-0.15							
Median	-0.2	-0.15							
Standard Deviation	0.969536	1.06066							
Sample Variance	0.94	1.125							
Skewness	-1.4313	NA							
Minimum	-2.95	-0.9							
Maximum	0.7	0.6							
Count	13	2							
Confidence Level(95.0%)	0.585885	9.529654							

Year 2010

Meter Code 017 Actaris 1000A

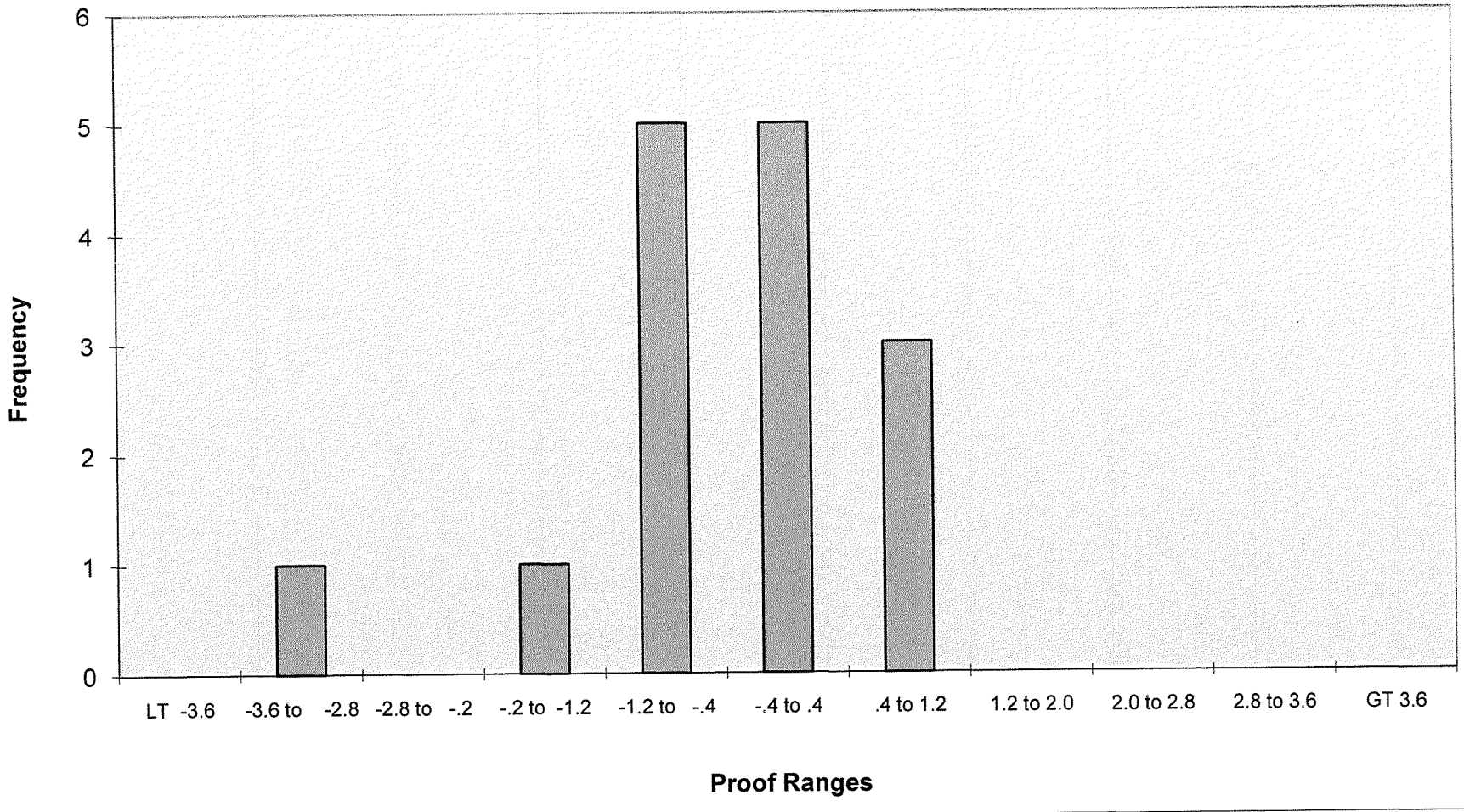
Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	4
-.4 to .4	5
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	0
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	1
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	5
-.4 to .4	5
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	15

Acataris 1000A Distribution Profile - 017

(2002, 2003)



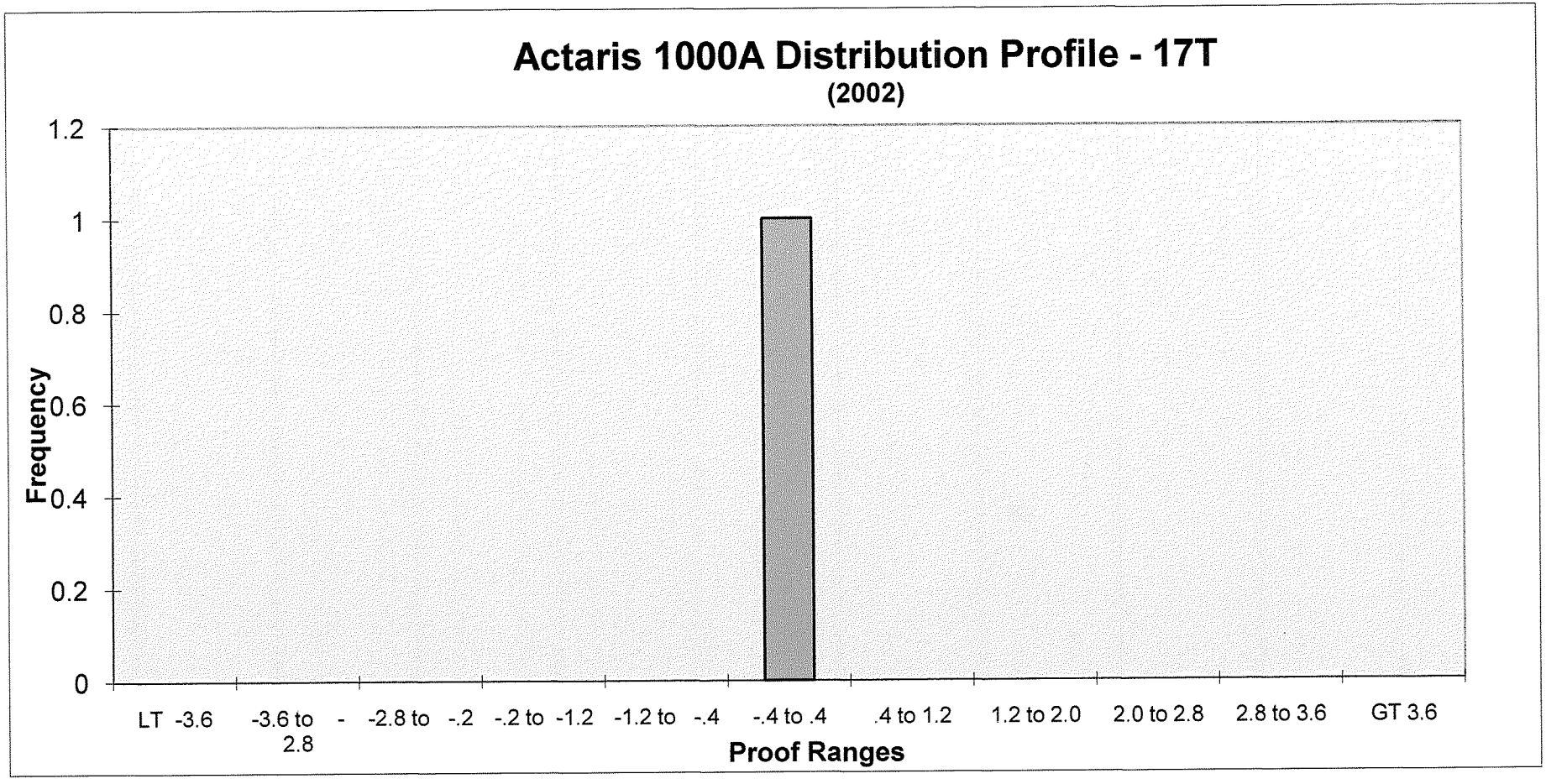
Actaris 1000A	Test Year 2010								
1000 CFH	Control Group-Installed Year								
Code 17T	2002								
Sample Plan	Single								
Sample Size	1								
Original Population	1								
# of Slow Failures	0								
# of Fast Failures	0								
Total Failures:	0								
Accept Level	0								
Reject Level	1								
Pass / Fail ?	Pass								
If Failed - Remove By:	Exhaust								
Statistical Data:									
Mean (Average Proof)	0.4								
Median	0.4								
Standard Deviation	NA								
Sample Variance	NA								
Skewness	NA								
Minimum	0.4								
Maximum	0.4								
Count	1								
Confidence Level(95.0%)	NA								

Year 2010

Meter Code 17T Actaris 1000A

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	1

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	1


Actaris 1000A Distribution Profile - 17T
(2002)
1.2
1
0.8
0.6
0.4
0.2
0
Frequency
LT -3.6
-3.6 to 2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

American AL 1400
1400 CFH
Code: 019

Test Year 2010

	Control Group-Installed Year								
	2000	2001	2002	2003	2004	2005	2006		
Sample Plan	Single	Single	Single	Single	Single	Single	Single		
Sample Size	1	2	2	2	8	8	8		
Original Population	1*	7	6	11	20	22	25		
# of Slow Failures	0	0	0	0	0	0	0		
# of Fast Failures	0	0	0	0	0	0	0		
Total Failures:	0	0	0	0	0	0	0		
Accept Level	0	0	0	0	1	1	1		
Reject Level	1	1	1	1	2	2	2		
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass		
If Failed - Remove By:	Exhaust	NA	NA	NA	NA	NA	NA		
Statistical Data:									
Mean (Average Proof)	-0.2	0.125	-0.25	-0.075	-0.71875	-0.175	-0.375		
Median	-0.2	0.125	-0.25	-0.075	-0.825	-0.2	-0.1		
Standard Deviation	NA	0.388909	0.565685	2.510229	0.644724	0.855653	0.966954		
Sample Variance	NA	0.15125	0.32	6.30125	0.41567	0.732143	0.935		
Skewness	NA	NA	NA	NA	0.648098	0.782628	-0.68671		
Minimum	-0.2	-0.15	-0.65	-1.85	-1.45	-1.4	-1.9		
Maximum	-0.2	0.4	0.15	1.7	0.4	1.5	0.75		
Count	1	2	2	2	8	8	8		
Confidence Level(95.0%)	NA	3.494206	5.082482	22.55351	0.539003	0.715344	0.808394		

* Control group in 10th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to determine if group passed/failed in it's last year of service.

Year 2010 Meter Code 019 American AL 1400

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	1

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	2
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	0
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	4
-.4 to .4	2
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

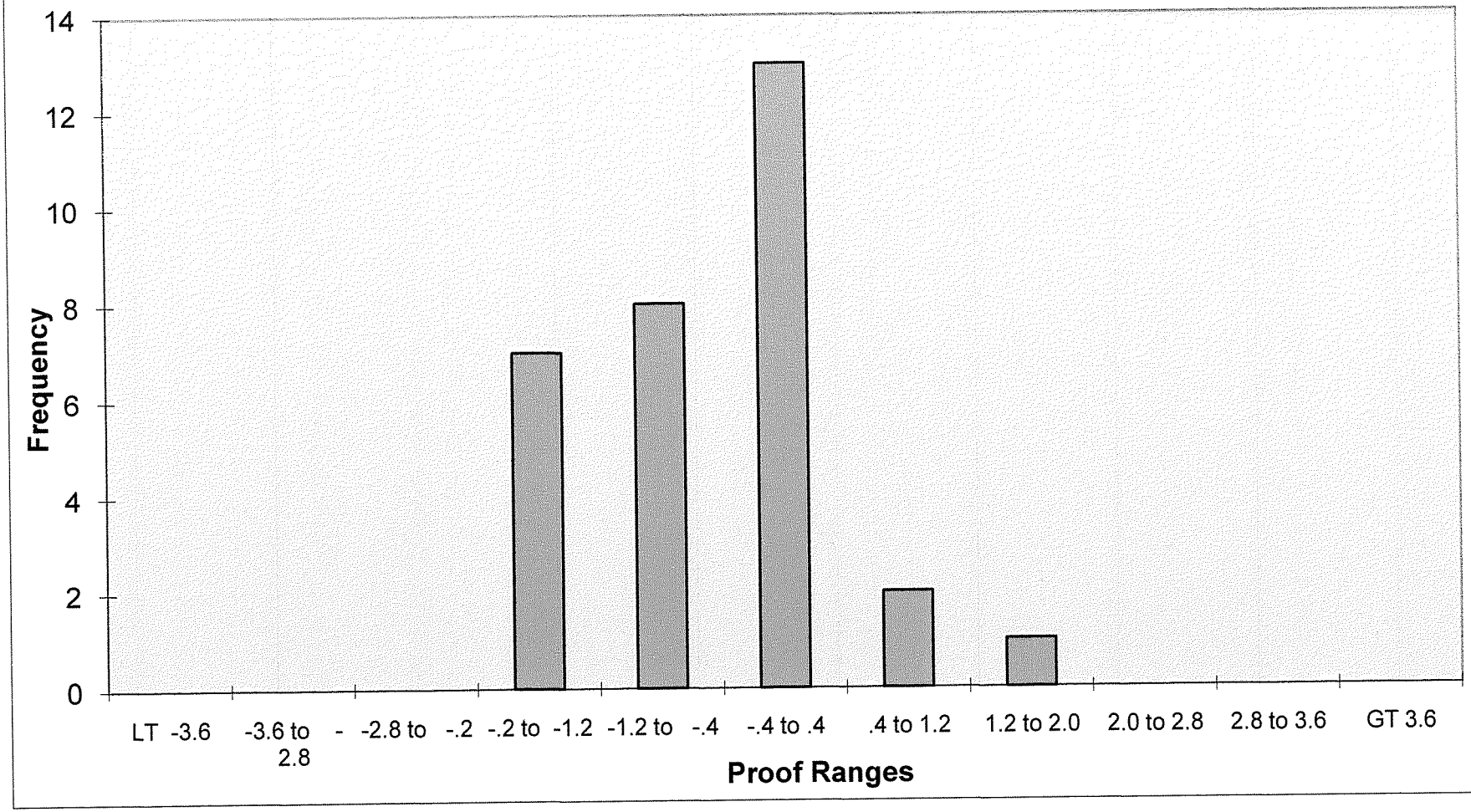
Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	2
-.4 to .4	4
.4 to 1.2	0
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	1
-.4 to .4	3
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	7
-1.2 to -.4	8
-.4 to .4	13
.4 to 1.2	2
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	31

American AL1400 Distribution Profile - 019

(2000, 2001, 2002, 2003, 2004, 2005, 2006)

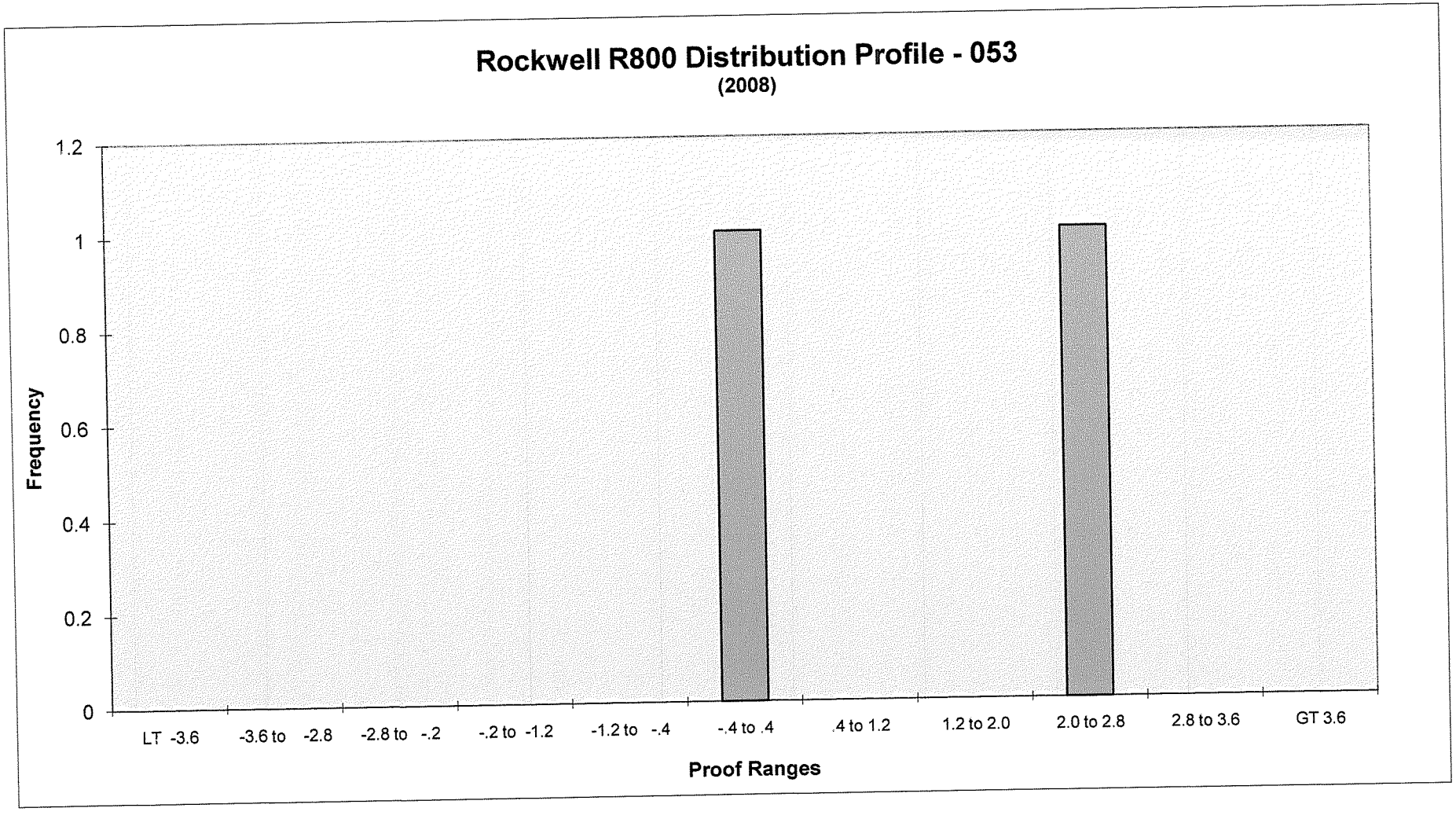


Rockwell R800	Test Year 2010								
800 CFH	Control Group-Installed Year								
Code: 053	2008								
Sample Plan	Single								
Sample Size	2								
Original Population	3								
# of Slow Failures	0								
# of Fast Failures	1								
Total Failures:	1								
Accept Level	0								
Reject Level	1								
Pass / Fail?	Fail								
If Failed - Remove By:	6/1/2012 NA								
Statistical Data:									
Mean (Average Proof)	1.1								
Median	1.1								
Standard Deviation	1.343503								
Sample Variance	1.805								
Skewness	NA								
Minimum	0.15								
Maximum	2.05								
Count	2								
Confidence Level(95.0%)	12.07089								

Year 2010 Meter Code 053 Rockwell R800

Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	2


Rockwell R800 Distribution Profile - 053
(2008)
Frequency
1.2
1
0.8
0.6
0.4
0.2
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Rockwell #3 Emco
1200 CFH
Code: 056

Test Year 2010

	Control Group-Installed Year								
	2000	2001	2002	2003	2004	2005	2006	2008	
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	
Sample Size	8*	8	8	8	13	13	8	13	
Original Population	26	21	30	34	85	59	47	71	
# of Slow Failures	0	0	0	0	0	0	0	0	
# of Fast Failures	0	0	0	0	0	0	0	0	
Total Failures:	0	0	0	0	0	0	0	0	
Accept Level	1	1	1	1	1	2	1	2	
Reject Level	2	2	2	2	2	3	2	3	
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	
If Failed - Remove By:	Exhaust	NA	NA	NA	NA	NA	NA	NA	
Statistical Data:									
Mean (Average Proof)	-0.50625	-0.4375	-0.4	-0.65625	0.019231	-0.21923	-0.6625	-0.48462	
Median	-0.7	-0.45	-0.425	-0.75	-0.1	-0.05	-0.525	-0.4	
Standard Deviation	1.103384	0.866747	0.771825	0.687354	1.0509	0.875961	0.995257	0.897539	
Sample Variance	1.217455	0.75125	0.595714	0.472455	1.104391	0.767308	0.990536	0.805577	
Skewness	1.33506	-0.73269	0.337423	0.621815	0.219329	-0.4038	0.316102	-0.09054	
Minimum	-2	-2	-1.7	-1.6	-2	-2	-1.95	-2	
Maximum	1.85	0.5	1.05	0.6	1.95	1.05	1.05	1	
Count	8	8	8	8	13	13	8	13	
Confidence Level(95.0%)	0.922452	0.724618	0.645262	0.574642	0.635053	0.529338	0.832055	0.542378	

* Control group in 10th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to determine if group passed/failed in it's last year of service.

Year 2010 Meter Code 056 Rockwell #3 Emco

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	4
-.4 to .4	2
.4 to 1.2	0
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	2
-.4 to .4	2
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	3
-.4 to .4	3
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	4
-.4 to .4	2
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	2
-.4 to .4	6
.4 to 1.2	2
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	5
-.4 to .4	4
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

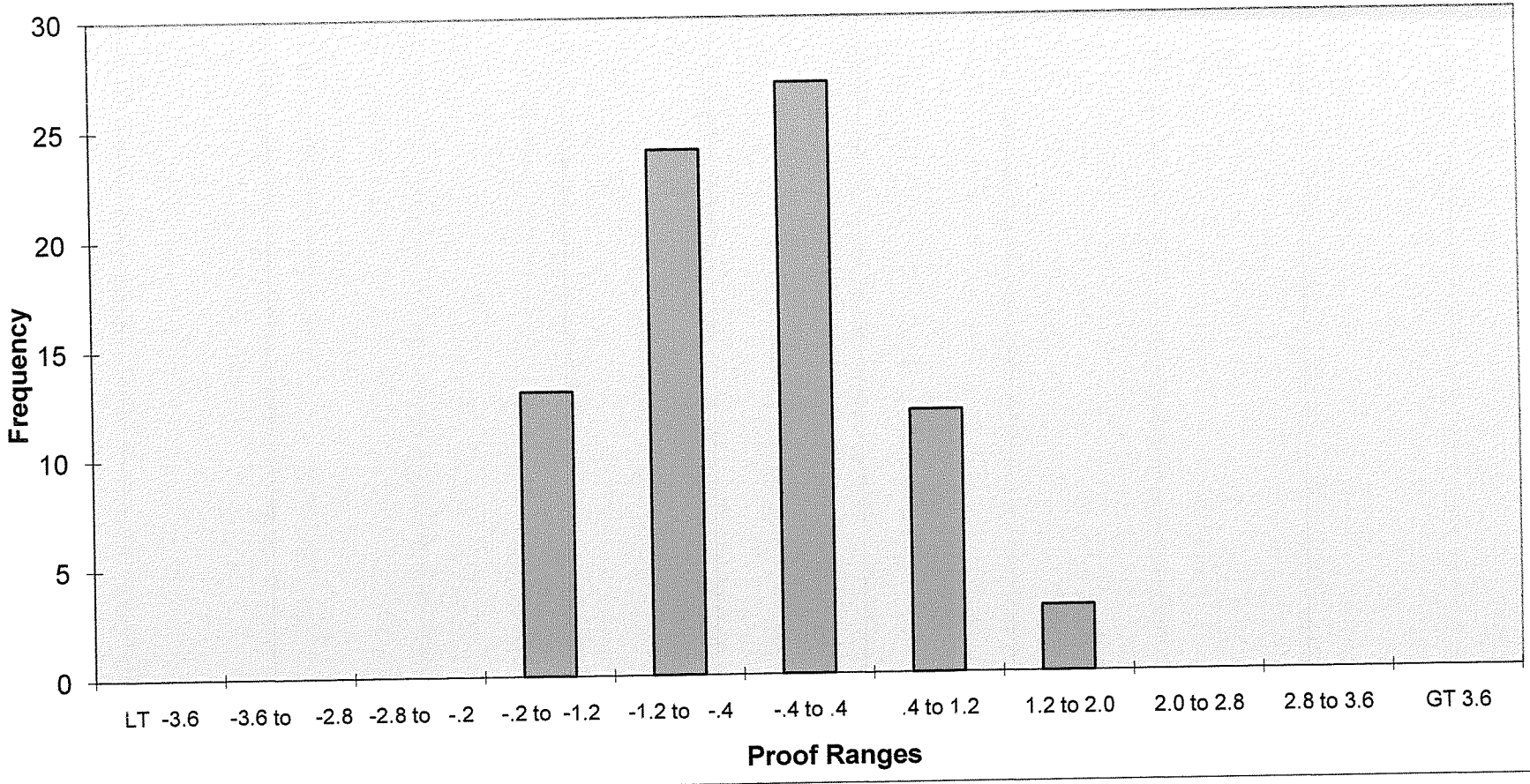
Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	1
-.4 to .4	3
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	3
-.4 to .4	5
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	13
-1.2 to -.4	24
-.4 to .4	27
.4 to 1.2	12
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	79

Rockwell #3 Emco Distribution Profile - 056

(2000, 2001, 2002, 2003, 2004, 2005, 2006, 2008)



Rockwell R750	Test Year 2010								
750 CFH	Control Group-Installed Year								
Code: 058	2000	2001	2002	2003	2004	2005	2006	2008	
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single	
Sample Size	13*	32	13	20	32	50	50	50	
Original Population	90	166	69	150	21	373	386	435	
# of Slow Failures	0	0	0	1	0	0	1	0	
# of Fast Failures	0	1	0	2	0	1	1	0	
Total Failures:	0	1	0	3	0	1	2	0	
Accept Level	2	5	2	3	5	7	7	7	
Reject Level	3	6	3	4	6	8	8	8	
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	
If Failed - Remove By:	Exhaust	NA	NA	NA	NA	NA	NA	NA	
Statistical Data:									
Mean (Average Proof)	-0.50385	0.40625	0.069231	0.6175	0.115625	0.279	0.064	0.451	
Median	-0.25	0.15	-0.05	0.725	-0.1	0.15	0.175	0.5	
Standard Deviation	0.766611	0.878484	0.966423	1.1163	0.996562	1.25808	0.980319	0.713177	
Sample Variance	0.587692	0.771734	0.933974	1.246125	0.993135	1.582764	0.961024	0.508621	
Skewness	-0.43342	0.735135	0.460931	-0.51647	0.316787	3.464993	-1.79461	-0.47961	
Minimum	-1.8	-1.5	-1.25	-2.15	-1.8	-1.75	-4.45	-1.55	
Maximum	0.6	2.75	1.75	2.4	1.9	7.25	2.3	1.95	
Count	13	32	13	20	32	50	50	50	
Confidence Level(95.0%)	0.463258	0.316727	0.584004	0.522444	0.359299	0.357542	0.278603	0.202683	

* Control group in 10th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to determine if group passed/failed in it's last year of service.

Year 2010

Meter Code 058 Rockwell R750

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	3
-1.2 to -.4	2
-.4 to .4	7
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	2
-.4 to .4	18
.4 to 1.2	5
1.2 to 2.0	5
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	4
-.4 to .4	4
.4 to 1.2	2
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	5
.4 to 1.2	7
1.2 to 2.0	3
2.0 to 2.8	2
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	8
-.4 to .4	13
.4 to 1.2	4
1.2 to 2.0	6
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32

Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	13
-.4 to .4	18
.4 to 1.2	14
1.2 to 2.0	3
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	1
Total	50

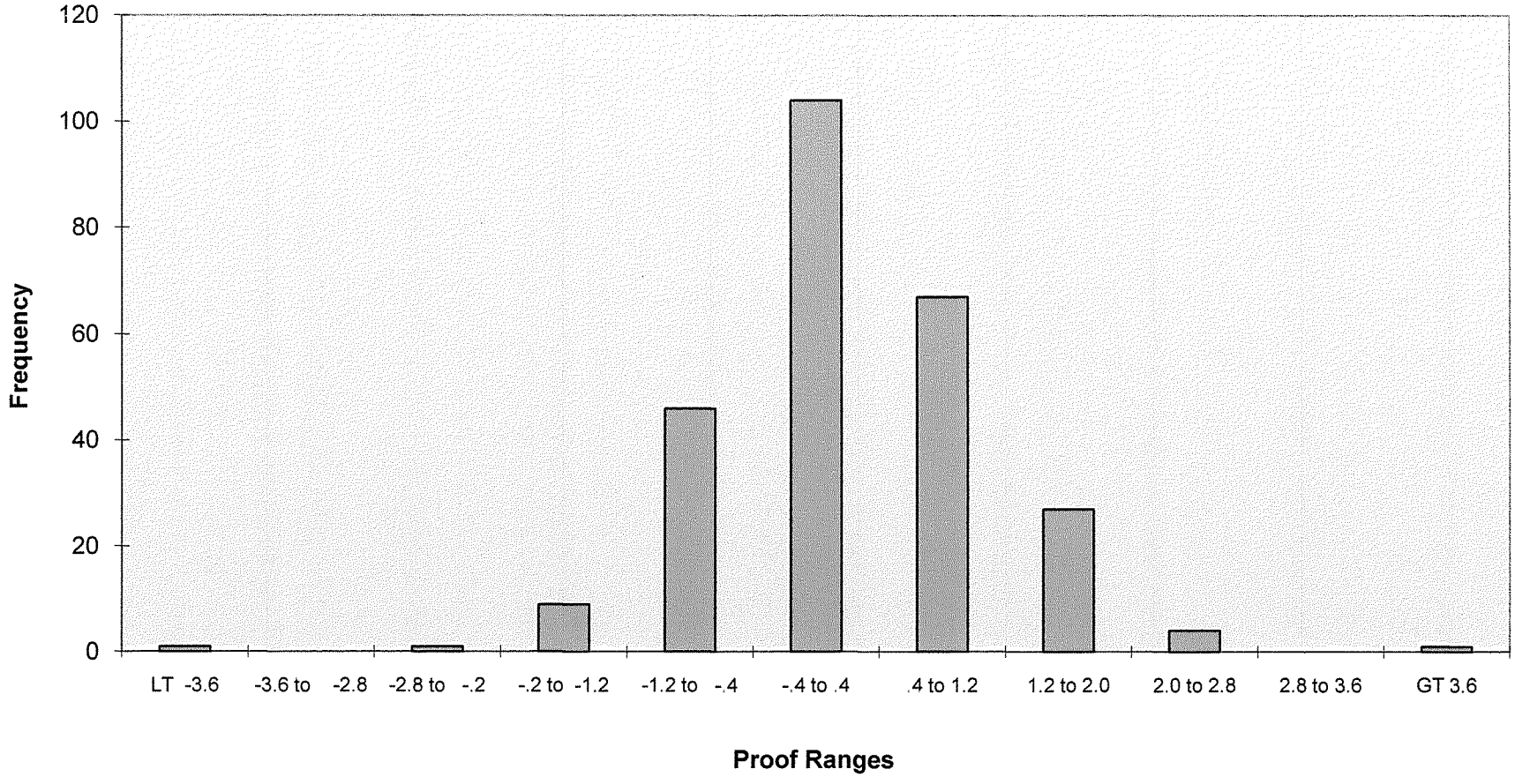
Code & Year:	2006
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	10
-.4 to .4	22
.4 to 1.2	14
1.2 to 2.0	1
2.0 to 2.8	1
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	5
-.4 to .4	17
.4 to 1.2	20
1.2 to 2.0	7
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	50

Code & Year:	Total
Data Range	Number
LT -3.6	1
-3.6 to -2.8	0
-2.8 to -.2	1
-.2 to -1.2	9
-1.2 to -.4	46
-.4 to .4	104
.4 to 1.2	67
1.2 to 2.0	27
2.0 to 2.8	4
2.8 to 3.6	0
GT 3.6	1
Total	260

Rockwell R750 Distribution Profile - 058

(2000, 2001, 2002, 2003, 2004, 2005, 2006, 2008)



American AL 800	Test Year 2010							
800 CFH	Control Group-Installed Year							
Code: 076	2000	2001	2002	2003	2004	2005	2006	2008
Sample Plan	Single	Single	Single	Single	Single	Single	Single	Single
Sample Size	2*	8	2	13	20	8	13	20
Original Population	8	28	10	62	97	31	73	98
# of Slow Failures	0	0	0	0	2	0	0	0
# of Fast Failures	0	0	0	0	0	0	0	0
Total Failures:	0	0	0	0	2	0	0	0
Accept Level	0	1	0	2	3	1	2	3
Reject Level	1	2	1	3	4	2	3	4
Pass / Fail?	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
If Failed - Remove By:	Exhaust	NA	NA	NA	NA	NA	NA	NA
Statistical Data:								
Mean (Average Proof)	-0.8	-0.1625	-0.375	-0.08846	-0.97	-0.5125	-0.24615	-0.07
Median	-0.8	-0.1	-0.375	0.05	-1.1	-0.625	-0.1	0.075
Standard Deviation	0.494975	0.957583	0.318198	0.581361	0.953994	0.778621	0.69506	0.632331
Sample Variance	0.245	0.916964	0.10125	0.337981	0.910105	0.60625	0.483109	0.399842
Skewness	NA	-0.70681	NA	-1.08968	0.226121	0.017515	-0.4923	-0.14075
Minimum	-1.15	-1.9	-0.6	-1.5	-2.6	-1.7	-1.6	-1.15
Maximum	-0.45	0.95	-0.15	0.8	0.8	0.6	0.65	0.9
Count	2	8	2	13	20	8	13	20
Confidence Level(95.0%)	4.447172	0.800559	2.858896	0.351313	0.446483	0.650943	0.420021	0.29594

Year 2005 Year 2010 Meter Code 076 American AL800

Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	3
.4 to 1.2	4
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2000
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	2
-.4 to .4	2
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2002
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	1
-.4 to .4	1
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	2

Code & Year:	2003
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	1
-.4 to .4	9
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	0

Code & Year:	2004
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	7
-1.2 to -.4	6
-.4 to .4	3
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	4
-.4 to .4	2
.4 to 1.2	1
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	4
-.4 to .4	5
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	5
-.4 to .4	11
.4 to 1.2	4
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Year 2005 Year 2010 Meter Code 076 American AL800

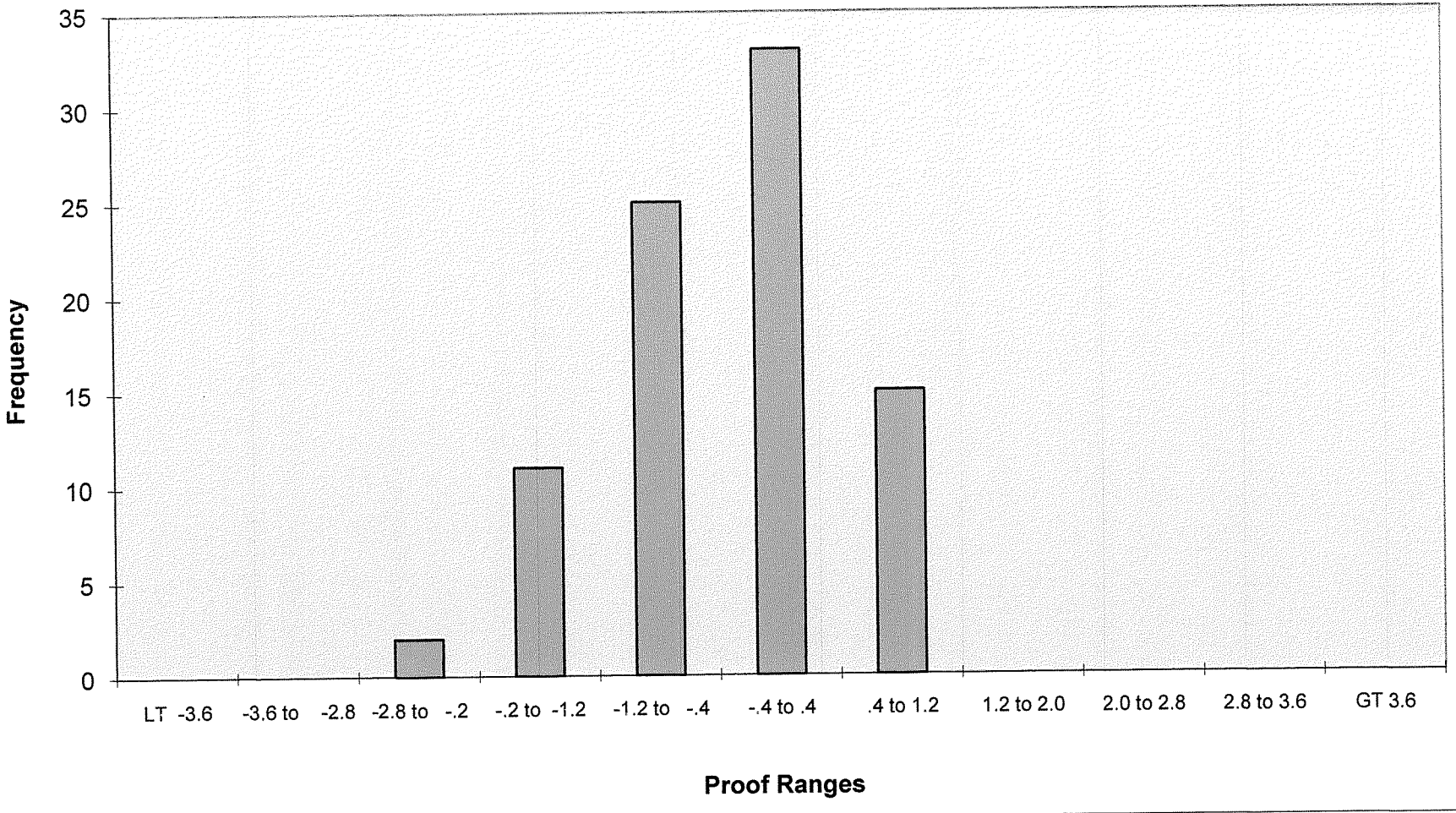
Code & Year:	1996
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	3
.4 to 1.2	4
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	2
-.2 to -1.2	11
-1.2 to -.4	25
-.4 to .4	33
.4 to 1.2	15
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	86

Code & Year:	2001
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	0
-.4 to .4	0
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	0

American AL800 Distribution Profile - 076

(2000, 2001, 2002, 2003, 2004, 2005, 2006, 2008)



Rockwell #4 Emco	Test Year 2010								
2250 CFH	Control Group-Installed Year								
Code: 028	2005	2006	2007	2008					
Sample Plan	Single	Single	Single	Single					
Sample Size	13*	13	20	20					
Original Population	72	88	120	135					
# of Slow Failures	0	0	0	0					
# of Fast Failures	0	0	0	0					
Total Failures:	0	0	0	0					
Accept Level	2	2	3	3					
Reject Level	3	3	4	4					
Pass / Fail?	Pass	Pass	Pass	Pass					
If Failed - Remove By:	Exhaust	NA	NA	NA					
Statistical Data:									
Mean (Average Proof)	-0.03846	-0.15769	0.2675	-0.015					
Median	-0.35	0.05	-0.175	-0.275					
Standard Deviation	1.231387	0.700847	1.128725	0.987434					
Sample Variance	1.516314	0.491186	1.27402	0.975026					
Skewness	0.129068	-0.5864	0.177772	0.271402					
Minimum	-1.7	-1.4	-2	-1.85					
Maximum	1.8	0.85	2	2					
Count	13	13	20	20					
Confidence Level(95.0%)	0.74412	0.423517	0.528259	0.462133					

* Control group in 5th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to dertermine if group passed/failed in it's last year of service.

Year 2010

Meter Code 028 Rockwell #4 Emco

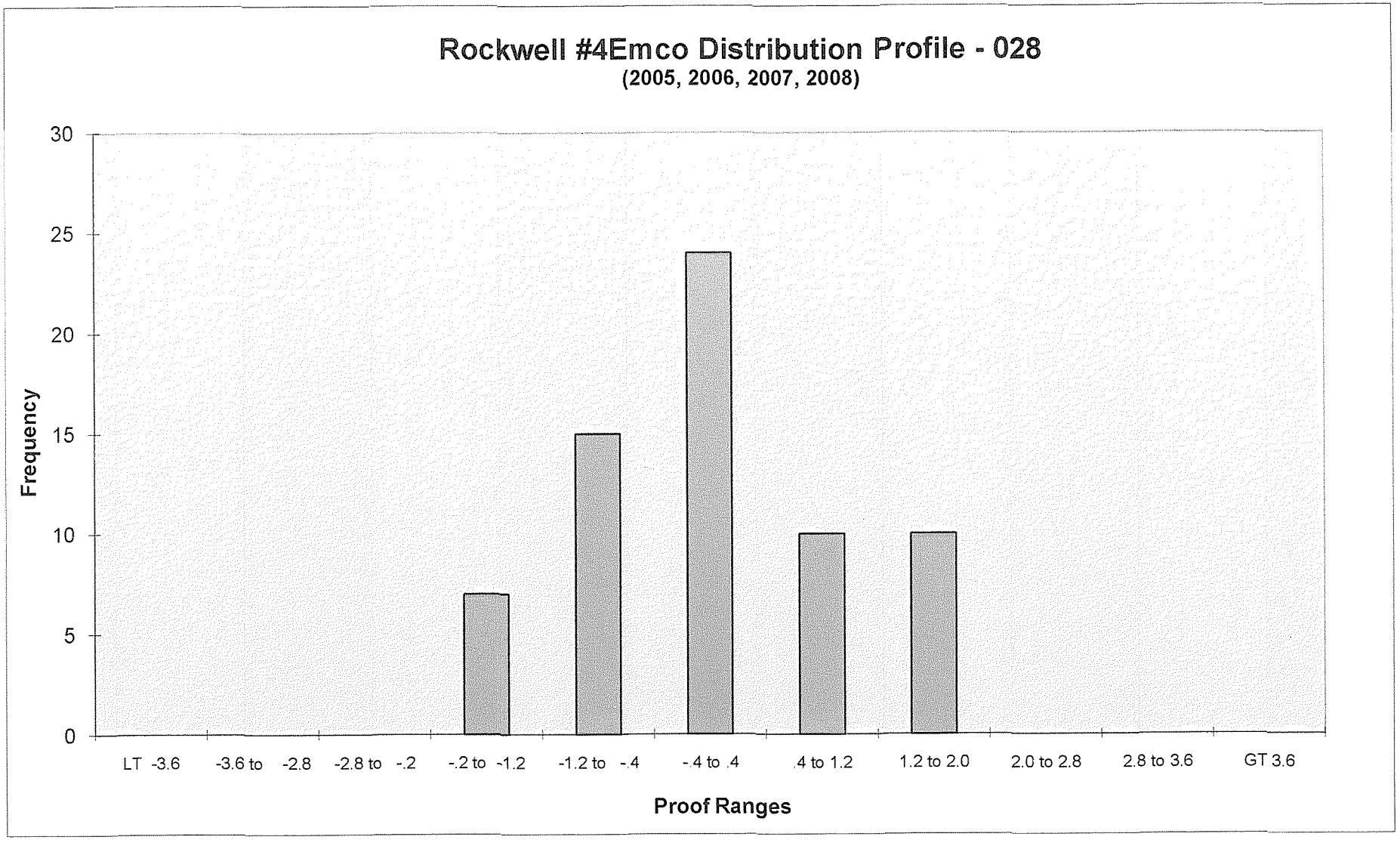
Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	4
-.4 to .4	2
.4 to 1.2	3
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	3
-.4 to .4	6
.4 to 1.2	2
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	13

Code & Year:	2007
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	3
-.4 to .4	9
.4 to 1.2	1
1.2 to 2.0	6
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	2
-1.2 to -.4	5
-.4 to .4	7
.4 to 1.2	4
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	20

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	7
-1.2 to -.4	15
-.4 to .4	24
.4 to 1.2	10
1.2 to 2.0	10
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	66


Rockwell #4Emco Distribution Profile - 028
(2005, 2006, 2007, 2008)
Frequency
30
25
20
15
10
5
0
LT -3.6
-3.6 to -2.8
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Rockwell 10Emco	Test Year 2010								
5000 CFH	Control Group-Installed Year								
Code: 061	2005	2006	2007	2008					
Sample Plan	Single	Single	Single	Single					
Sample Size	8*	8	8	8					
Original Population	38	31	41	42					
# of Slow Failures	0	0	0	0					
# of Fast Failures	0	0	0	0					
Total Failures:	0	0	0	0					
Accept Level	1	1	1	1					
Reject Level	2	2	2	2					
Pass / Fail?	Pass	Pass	Pass	Pass					
If Failed - Remove By:	Exhaust	NA	NA	NA					
Statistical Data:									
Mean (Average Proof)	-0.01875	-0.19375	-0.11875	-0.01875					
Median	-0.35	-0.325	0.05	-0.175					
Standard Deviation	0.78328	0.340627	1.038865	0.749285					
Sample Variance	0.613527	0.116027	1.079241	0.561429					
Skewness	1.292137	0.454936	-0.74281	1.18858					
Minimum	-0.7	-0.65	-1.95	-0.75					
Maximum	1.3	0.3	1.05	1.5					
Count	8	8	8	8					
Confidence Level(95.0%)	0.654838	0.284771	0.868513	0.626418					

* Control group in 5th year of service - maximum service period - all meters to be removed/tested. Sample size based on population was used to dertermine if group passed/failed in it's last year of service.

Year 2010

Meter Code 061 Rockwell 10M Emco

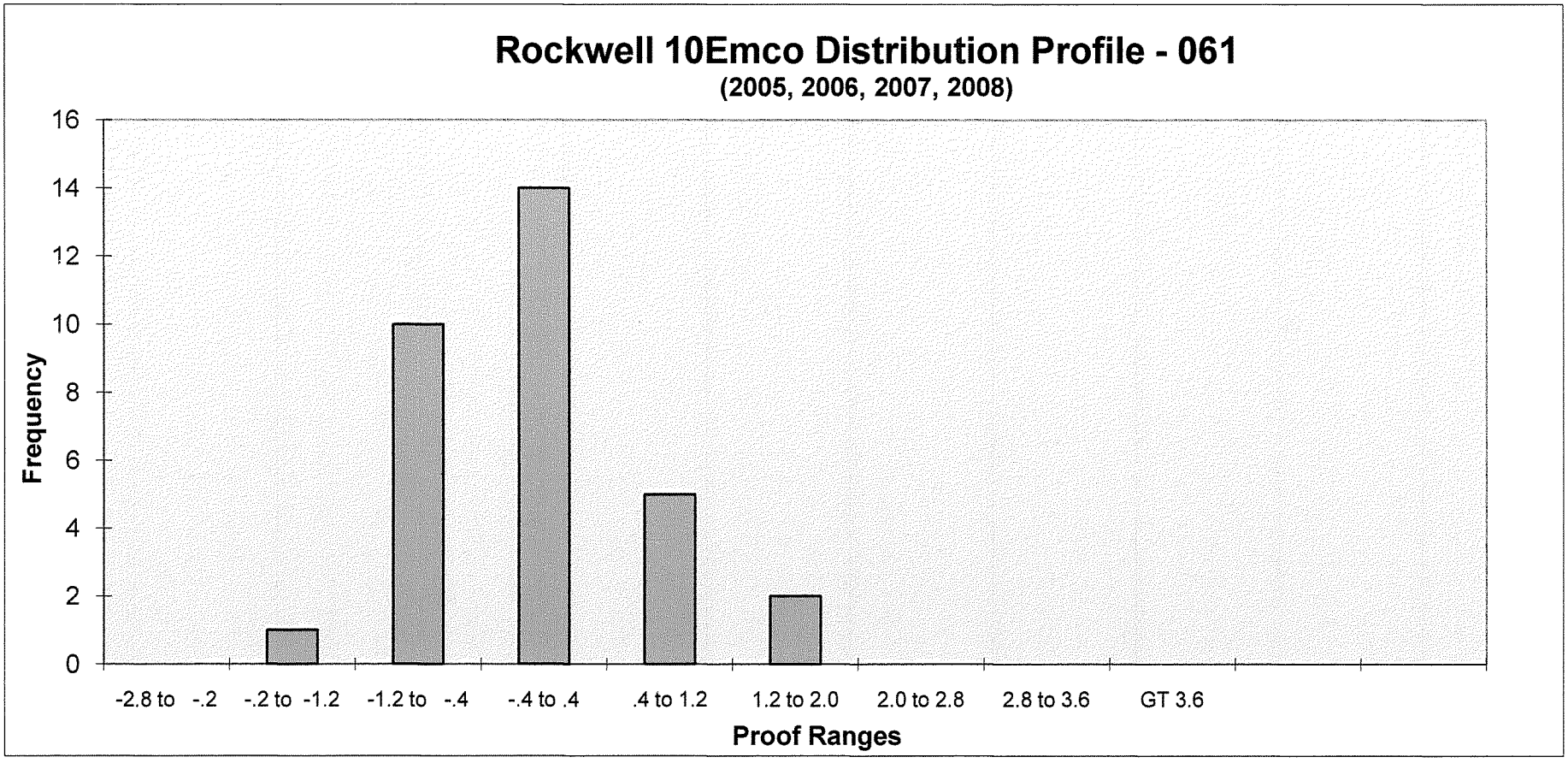
Code & Year:	2005
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	3
-.4 to .4	3
.4 to 1.2	1
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2006
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	2
-.4 to .4	6
.4 to 1.2	0
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2007
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	2
-.4 to .4	2
.4 to 1.2	3
1.2 to 2.0	0
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	2008
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	0
-1.2 to -.4	3
-.4 to .4	3
.4 to 1.2	1
1.2 to 2.0	1
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	8

Code & Year:	Total
Data Range	Number
LT -3.6	0
-3.6 to -2.8	0
-2.8 to -.2	0
-.2 to -1.2	1
-1.2 to -.4	10
-.4 to .4	14
.4 to 1.2	5
1.2 to 2.0	2
2.0 to 2.8	0
2.8 to 3.6	0
GT 3.6	0
Total	32


Rockwell 10Emco Distribution Profile - 061
(2005, 2006, 2007, 2008)
Frequency
16
14
12
10
8
6
4
2
0
-2.8 to -.2
-.2 to -1.2
-1.2 to -.4
-.4 to .4
.4 to 1.2
1.2 to 2.0
2.0 to 2.8
2.8 to 3.6
GT 3.6
Proof Ranges

Louisville Gas & Electric

Regulator Inspection and Replacement Program Report 2010

Year 2010 Regulator Inspection and Replacement Program

I. Progress Summary

During 2010, LG&E replaced a total of 30,285 gas pressure regulators as part of LG&E's regulator inspection and upgrade program. An additional 1,514 regulators were replaced for other reasons such as improper function of the regulator, damage/vandalism, service line replacement, or meter loop repairs. The distribution of the reasons for these regulator replacements is shown in Table 1 below.

Table 1: Year 2010 Regulator Change Reasons

Reason	Quantity
Regulator Replacement Program	30,285
Failed Lockup Test	28
Vent Leaking	163
Leak on Regulator	5
Routine Change During Meter Loop Repair	427
Could Not Adjust Pressure	21
Damage/Vandalism	37
Routine Change During Service Renewal	830
Test Site	3
Total	**31,799**

For the time period of 2002 – 2010, a total of 167,309 regulator replacements have been made (correction in math error on table 1 of 2007 report accounts for program to date total being 167,309 rather than 167,310). This total represents 88% of the approximately 190,554 residential regulators that are expected to be replaced over the ten year period of the regulator replacement program.

II. Safety

As part of LG&E's regulator replacement activities, safety inspections were performed and "red-tags" were issued when deficiencies were found. The results of these safety inspections directly associated with LG&E's regulator replacement program are summarized in Table 2 below.

Table 2: Year 2010 Safety Inspection Results

Reason	Quantity
Houseline Leak (includes lines to gas grills, pool heaters, appliance flexible hook-up lines, fireplace, etc.)	63
Furnace Problem (internal leak, not burning correctly)	20
Leak or Not Venting Properly (dryer, range, water heater)	30
Flex Lines/Brass Connectors	561
Other Leaks (leaks on space heater, riser, etc.)	4
Misc. (trees, bushes, service line exposed, etc.)	3
Total	**681**

Additionally, the following Customer Surveillance Notices were issued to customers to correct outside deficiencies on their meter loop. The results of these safety inspections directly associated with LG&E's regulator replacement program, are summarized in Table 3 below.

Table 3: Year 2010 Customer Surveillance Notices Issued

Reason	Quantity
Corrosion / Rust On Outside Meter Loop & Associated Piping	6,018
Gas Meter In Contact With Soil / Pavement	32
Meter partially buried	17
Asphalt or Concrete Paving in Contact With Piping Entering Ground	310
Gas Piping Not Properly Supported	91
Meter Not Protected From Vehicular Damage	47
Customer Built Over Service Line / Around Meter	2
Tree / Shrubbery Growing Inside / Against Meter Loop	47
Total	**6,564**

The overall increase in customer surveillance notices being issued in 2010 compared to 2009 corresponds to the increase in regulator changes that were completed in 2010 compared to 2009.