BEFORE THE TENNESSEE REGULATORY AUTHORITY

NASHVILLE, TENNESSEE

REC'D TN
REGULATORY AUTH.
'99 SEP 14 AM 11 14
OFFICE OF THE
EXECUTIVE SECRETARY

September 14, 1999

IN RE:	)
	)
UNITED CITIES GAS COMPANY	) **Docket No. 99-00512**
WEATHER NORMALIZATION ADJ. (WNA) AUDIT	)

NOTICE OF FILING BY ENERGY AND WATER DIVISION OF THE TENNESSEE REGULATORY AUTHORITY

Pursuant to Tenn. Code Ann. §§ 65-4-104, 65-4-111 and 65-3-108, the Energy and Water Division of the Tennessee Regulatory Authority (the "Energy and Water Division") hereby gives notice of its filing of the United Cities Gas Company WNA Audit Report in this docket and would respectfully state as follows:

1. The present docket was opened by the Authority to hear matters arising out of the audit of United Cities Gas Company (the "Company").

2. The Company's WNA filings were received on November 1, 1998, through April 30, 1999, and the Staff completed its audit of same on August 27, 1999.

3. On August 27, 1999, the Energy and Water Division issued its preliminary ACA audit findings to the Company, and on September 13, 1999, the Company responded thereto.

4. The preliminary WNA audit report was modified to reflect the Company's responses and a final WNA audit report (the "Report") resulted therefrom. The Report is

attached hereto as Exhibit A and is fully incorporated herein by this reference. The Report contains the audit findings of the Energy and Water Division, the Company's responses thereto and the recommendations of the Energy and Water Division in connection therewith.

5. The Energy and Water Division hereby files its Report with the Tennessee Regulatory Authority for deposit as a public record and approval of the recommendations and findings contained therein.

Respectfully Submitted:

Pat Murphy

Pat Murphy
Energy and Water Division of the
Tennessee Regulatory Authority

CERTIFICATE OF SERVICE

I hereby certify that on this 14th day of September, 1999, a true and exact copy of the foregoing has been either hand-delivered or delivered via U.S. Mail, postage pre-paid, to the following persons:

Mr. K. David Waddell
Executive Secretary
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, TN 37243

Mr. Mark Thessin
Vice President of Rates and Regulatory Affairs
United Cities Gas Company
810 Crescent Centre, Suite 600
Franklin, TN 37067-6226

Pat Murphy

COMPLIANCE AUDIT REPORT

OF

UNITED CITIES GAS COMPANY

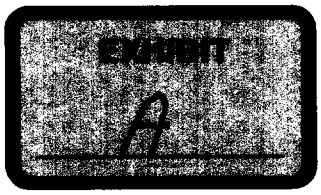
WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

PREPARED BY

TENNESSEE REGULATORY AUTHORITY

ENERGY AND WATER DIVISION

SEPTEMBER, 1999



COMPLIANCE AUDIT

UNITED CITIES GAS COMPANY

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

TABLE OF CONTENTS

		PAGE NO.
I.	Objective of Audit	1
II.	Scope of Audit	1
III.	Background on Weather Normalization Adjustment (WNA) Rider	1
IV.	Impact of WNA Rider	3
V.	Background Information on United Cities Gas Company	4
VI.	Findings	5
VII.	Recommendations and Conclusions	10

COMPLIANCE AUDIT

UNITED CITIES GAS COMPANY

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

I. OBJECTIVE OF AUDIT

In its September 26, 1991, Order in Docket 91-01712, the Tennessee Regulatory Authority (TRA), formerly the Tennessee Public Service Commission, approved a three year experimental Weather Normalization Adjustment (WNA) Rider to be applied to residential and commercial customers' bills during the months of October through May of each year (See Attachment 1). In its June 21, 1994, order, the Commission adopted the WNA Rider as a permanent rule, to be applied November through April of each year for United Cities Gas Company. The purpose of this audit is to determine if the WNA rider was calculated and applied to customers' bills correctly between November 1, 1998 and April 30, 1999.

II. SCOPE OF AUDIT

In meeting the objective of the audit, the Staff compared the following on a daily basis:

1) The Company's actual heating degree days to National Oceanic and Atmospheric Administration (NOAA) actual heating degree days;

2) The Company's normal heating degree days to the normal heating degree days calculated in the last rate case; and

3) The Company's calculation of the WNA factor to Staff's calculation. The Staff also audited a sample of customers' bills during the WNA period to verify that the WNA factor had been correctly applied to the bills.

This audit was conducted by Pat Murphy and Butch Phillips of the Energy and Water Division.

III. BACKGROUND OF WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

In setting rates, the Tennessee Regulatory Authority uses a normalized level of revenues and expenses for a test year, which is designed to be the most reasonable estimate of the Company's operations during the time the rates are to be in effect. Use of normalized operating levels eliminates unusual fluctuations that may occur during the test period, which causes rates to be set too high or too low.

Specifically, one part of normalizing revenues consists of either increasing or decreasing the test year weather related sales volumes to reflect the difference between the normal and actual heating degree days. (A heating degree day is calculated as the difference in the average daily temperature and 65 degrees Fahrenheit.) This average daily temperature constitutes normal weather and is determined based on the previous thirty years weather data.

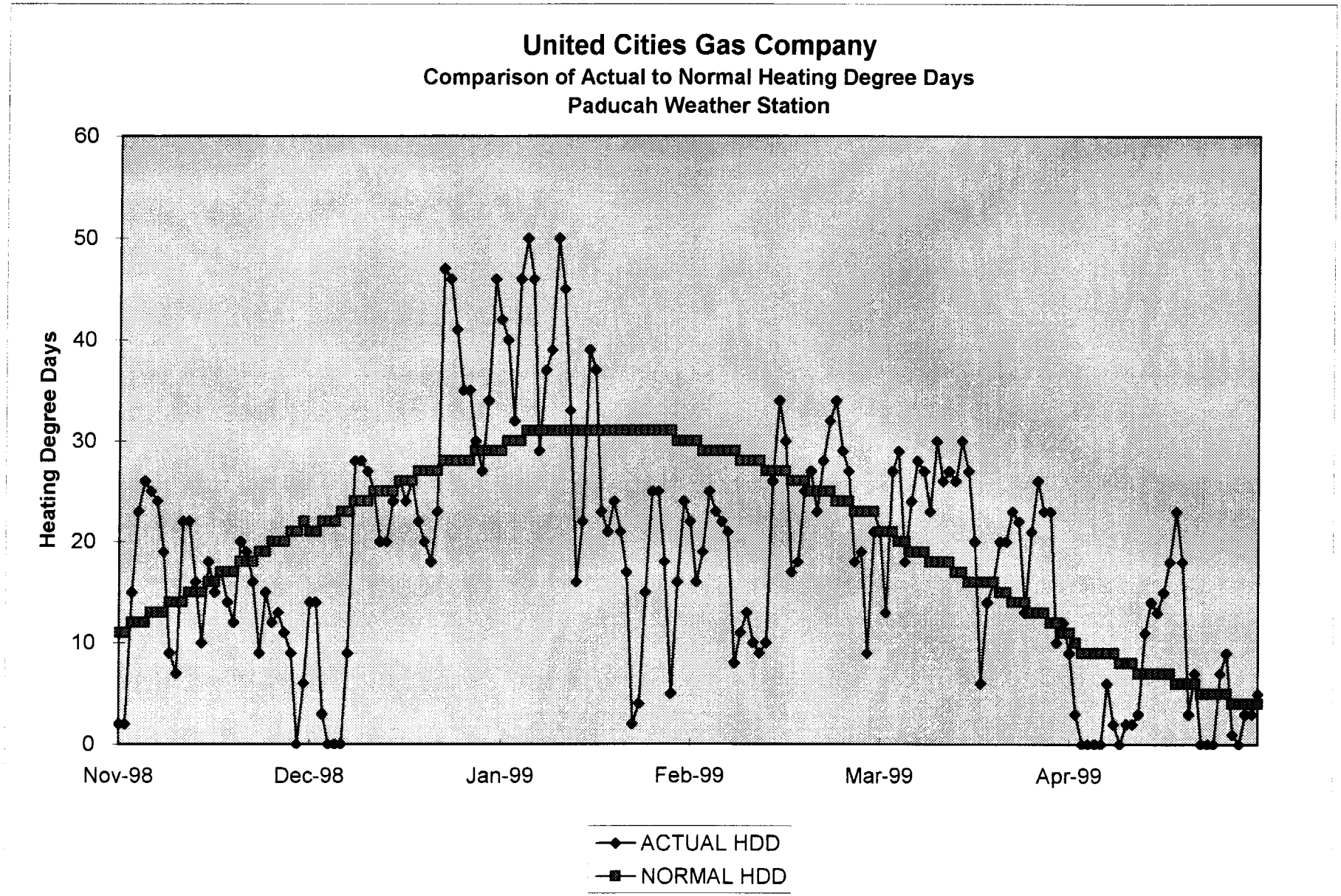
However, normal weather rarely occurs. This has two impacts:

1) The customers' bills fluctuate dramatically due to changes in weather from month to month.

2) The gas companies earn more or less than their authorized rate of return. For example, if weather is colder than normal, then more gas than anticipated in the rate case will be sold. This results in higher customer bills and overearnings for the company. On the other hand, if weather is warmer than normal, less gas than anticipated in the rate case will be sold, the customers' bills will be lower and the company will underearn.

In recognition of this fact, the TRA approved an experimental WNA mechanism, which became permanent on June 21, 1994, to reduce the impact abnormal weather has on the customers' bills and on the gas utilities' operations. In periods of weather colder than normal, the customer receives a credit on his bill, while in periods of warmer than normal weather, the customer is billed a surcharge. Thus, customers' monthly bills should not fluctuate as dramatically and the gas company should have a more stable rate of return.

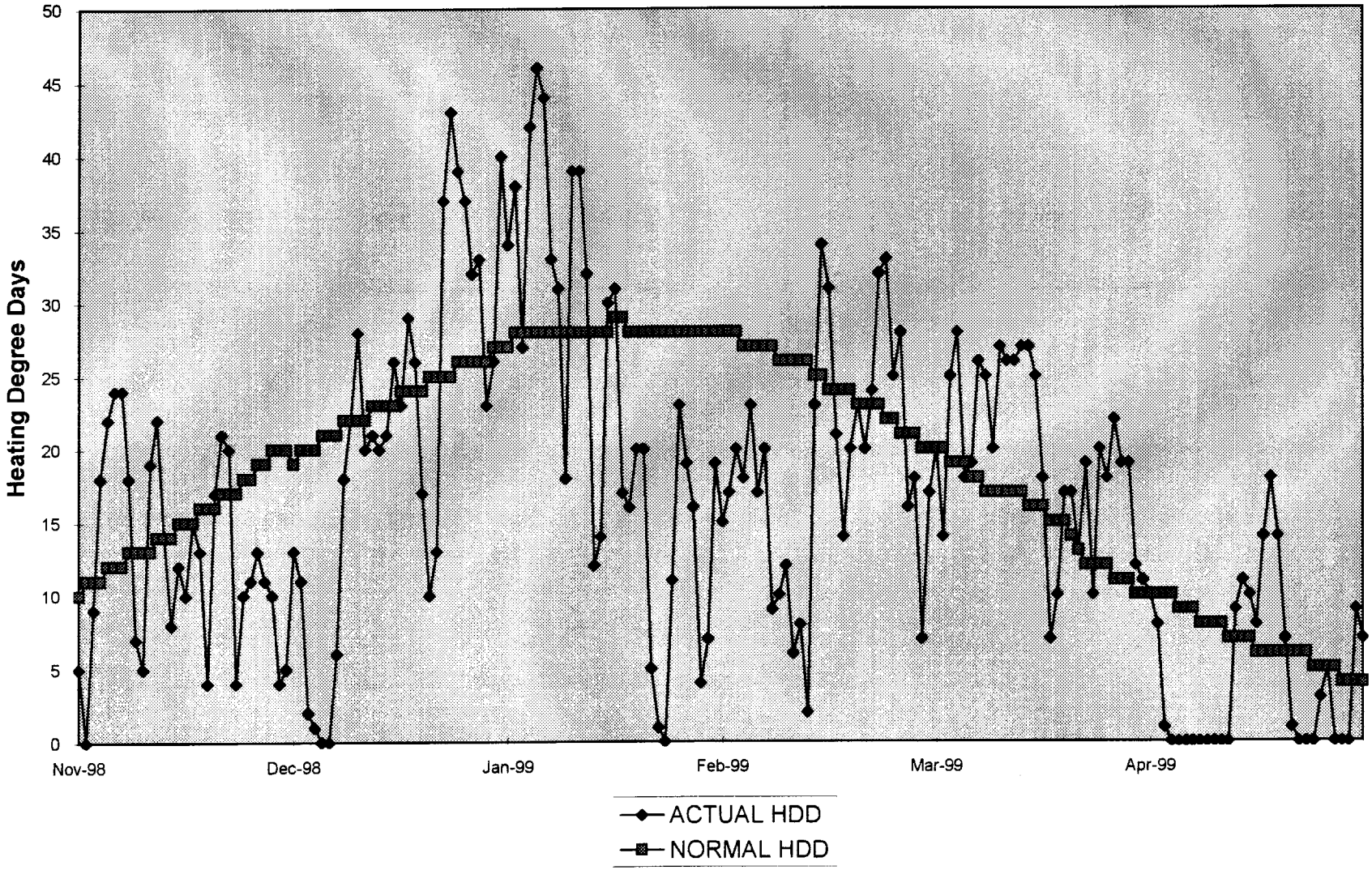
The following graphs show a comparison of actual heating degree days to normal heating degree days for United Cities Gas during the 1998 - 1999 heating season, in each of its four service areas.

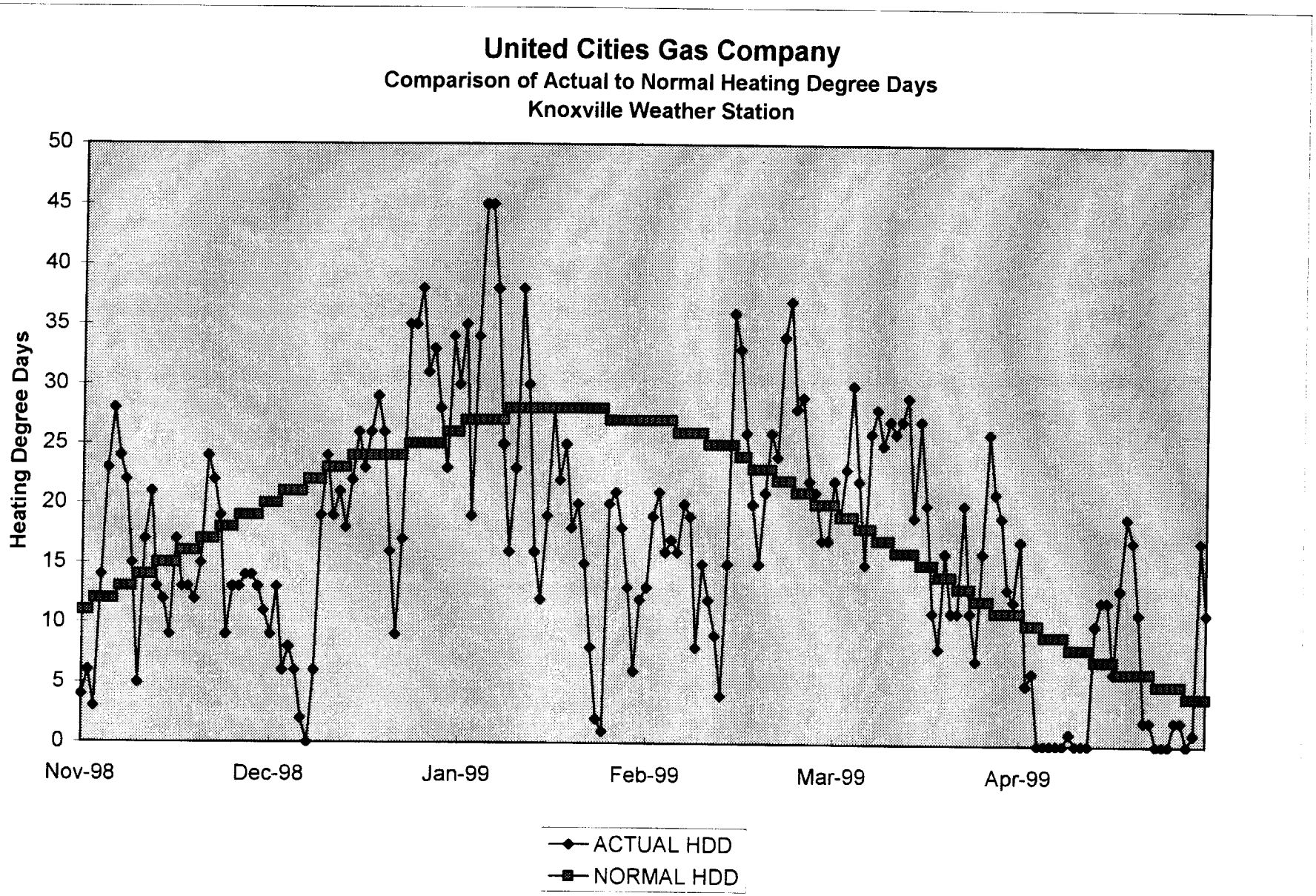

United Cities Gas Company
Comparison of Actual to Normal Heating Degree Days
Paducah Weather Station
Heating Degree Days
60
50
40
30
20
10
0
Nov-98
Dec-98
Jan-99
Feb-99
Mar-99
Apr-99
ACTUAL HDD
NORMAL HDD

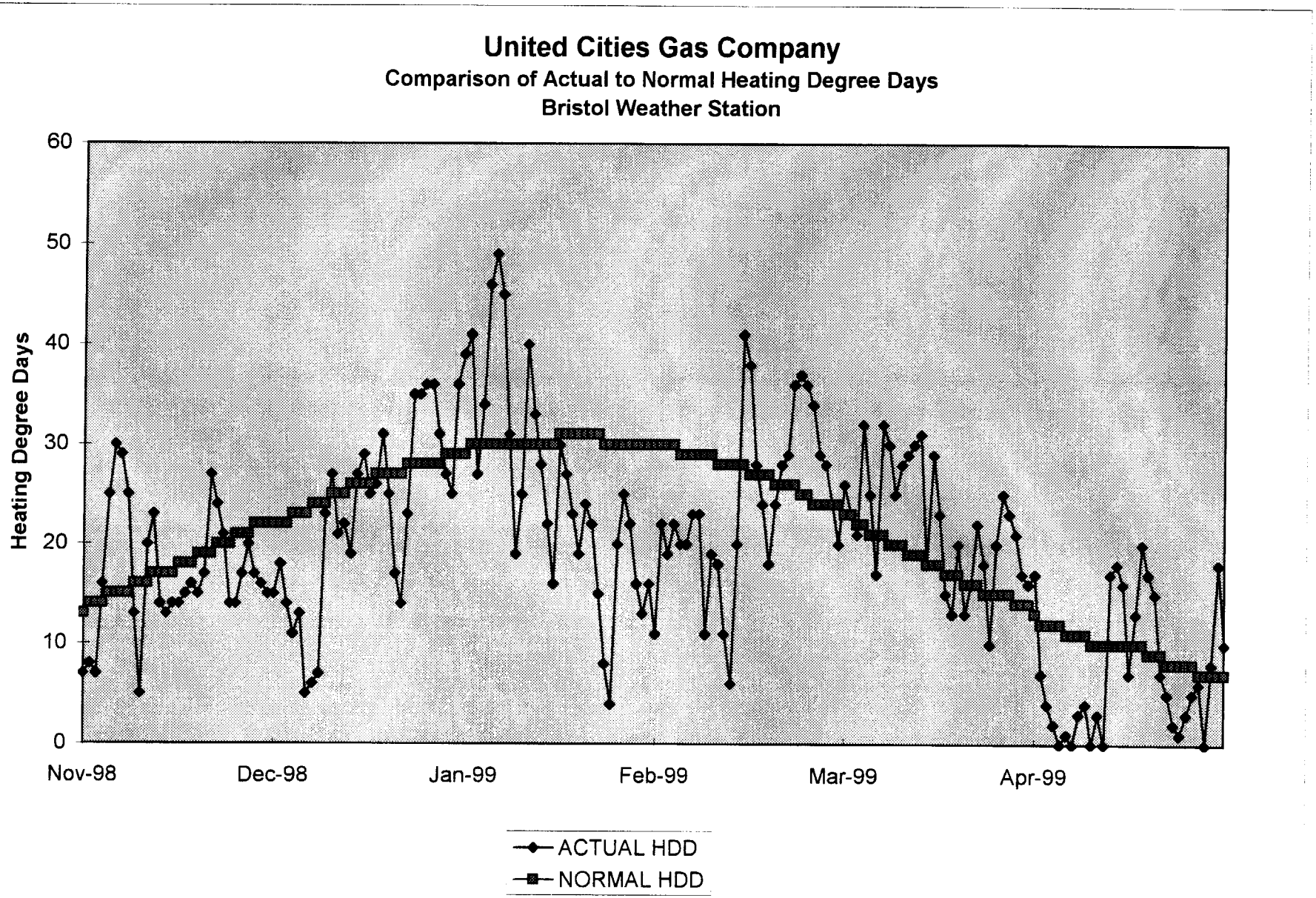
United Cities Gas Company

Comparison of Actual to Normal Heating Degree Days

Nashville Weather Station




United Cities Gas Company
Comparison of Actual to Normal Heating Degree Days
Knoxville Weather Station
Heating Degree Days
50
45
40
35
30
25
20
15
10
5
0
Nov-98
Dec-98
Jan-99
Feb-99
Mar-99
Apr-99
ACTUAL HDD
NORMAL HDD


United Cities Gas Company
Comparison of Actual to Normal Heating Degree Days
Bristol Weather Station
Heating Degree Days
60
50
40
30
20
10
0
Nov-98
Dec-98
Jan-99
Feb-99
Mar-99
Apr-99
ACTUAL HDD
NORMAL HDD

IV. IMPACT OF WNA RIDER

The net impact of the WNA Rider during the November 1, 1998 through April 30, 1999 period was that residential and commercial customers were **surcharged** $1,451,572 and $687,328 respectively. This equates to increases in revenues from residential and commercial sales of 5.92% and 1.89% respectively. (See Table 1) This is up from the previous year when the residential and commercial customers were **surcharged** $341,642 and $160,542 respectively. (See Table 2)

Table 1

Impact of WNA Rider on Residential & Commercial Revenues
November 1, 1998 - April 30, 1999

	WNA Rider Revenues	Total Revenues	Percentage Impact of WNA Rider On Revenues
Residential Sale	$1,451,572	$24,527,787	5.92%
Commercial Sales	687,328	36,314,778	1.89%
Total	$2,138,900	$60,842,565	3.52%

Table 2

Amount Surcharged (Refunded)
1996 - 1999

	Residential	Commercial	Total Surcharge/Refund
11/96-4/97	$ 710,295	365,777	$1,076,072
11/97-4/98	341,642	160,542	502,184
11/98-4/99	1,451,572	687,328	2,138,900
Total	$2,503,509	$1,213,647	$3,717,156

V. BACKGROUND INFORMATION ON THE COMPANY

United Cities Gas Company (UCG), with its principal office at 810 Crescent Centre Drive, Franklin, Tennessee, is a division of Atmos Energy Corporation, located in Dallas, Texas. UCG is a multi-state gas distributor, providing service to several communities in Tennessee. The gas to serve these areas is delivered by four natural gas pipelines in accordance with separate and individual tariffs approved by the Federal Energy Regulatory Commission. The four interstate pipelines are East Tennessee Natural Gas (ETNG), Texas Eastern Transmission Corporation (TETC), Columbia Gulf Transmission Corporation (CGTC), and Texas Gas Transmission Corporation (TGTC).

ETNG provides service to UCG in Tennessee for the Columbia, Shelbyville, Lynchburg, Maryville-Alcoa, Morristown, Bristol, Elizabethton, Gray, Greeneville, Johnson City, and Kingsport areas.

TETC and CGTC provide service to UCG in Tennessee for Murfreesboro, Nolensville, Franklin, and adjacent areas in Rutherford and Williamson Counties.

TGTC provides service to UCG in Tennessee to Union City and adjacent areas in Obion County.

VI. WNA FINDINGS

The Staff's audit results showed a net **underrecovery** from UCG's ratepayers in the amount of **$2,018**. This underrecovery resulted from three findings, which are summarized below.

SUMMARY:

FINDING #1	Inaccurate Actual Heating Degree Days	$11,024	Underrecovery
FINDING #2	Normal Heating Degree Days overstated	5,033	Overrecovery
FINDING #3	No WNA Adjustment for some customers	3,973	Overrecovery
	NET RESULT	**$ 2,018**	**Underrecovery**

FINDING #1:

Exception

The Company used inaccurate actual daily heating degree days in the calculation of the WNA factor.

Discussion

The audit period consists of 848 weather observations (212 days in the period times four weather stations). Our audit indicates that the Company used inaccurate actual daily heating degree days in the calculation of the WNA factor on 18 days of the WNA period. These inaccuracies are usually due either to the fact that the daily temperatures published in NOAA's Local Climatological Data were different from the daily temperatures that the Company obtained for these particular days from the local NOAA weather stations or that the weather data was inaccurately input into the Company's computer. The Company is unable to state with certainty which was the case in each instance listed below.

The days involved were:

Weather Station	Date	Daily Degree Days Used By Company	Daily Degree Days As Published By NOAA	Degree Day Difference
Paducah	10/23/98	17	16	-1
	11/04/98	22	23	1
	12/25/98	40	35	-5
	01/27/99	6	5	-1
	01/30/99	23	22	-1
	02/04/99	23	22	-1
				-8
Nashville	12/02/98	10	11	1
	12/05/98	1	0	-1
	12/12/98	20	21	1
	01/04/99	47	46	-1
	02/16/99	15	14	-1
	02/21/99	33	32	-1
				-2
Knoxville	12/07/98	1	0	-1
	12/18/98	26	29	3
	01/30/99	14	13	-1
	03/27/99/\	23	21	-2
				-1
Bristol	02/02/99	24	22	-2
	03/27/99	21	23	2
				0
			Total	-11

The net result of the Company's use of this inaccurate information is that the customers were **undercharged $11,024.36.**

Company Response

The difference in degree days is a result of human error. The weather stations are contacted each day and the results input into a database. It is very possible that the numbers could have been input incorrectly over the period of several months resulting in the 11 degree days difference.

FINDING #2:

Exception

The normal heating degree days were overstated.

Discussion

For all customers in Johnson City with read dates of January 4, 1999 and January 5, 1999, the cumulative normal degree days used to calculate the WNA adjustments were overstated by 90 degree days. It appears that the majority of these customers fell on cycles 20 and 22 in December, 1998.

The net result of the Company's use of inaccurate normal degree days is that the customers were **overcharged $5,033.**

Company Response

The Gas Controller inserted a line in the spreadsheet on January 3, 4 and 5 adding the Normal Degree Days and the Actual Degree Days, but did not delete the dates that had been inserted; therefore, the Normal Degree Days were overstated by 90. This error was corrected on January 6.

United Cities will be switching billing systems before the 1999/2000 WNA period and a safeguard to prevent this from happening in the future is being researched.

FINDING #3:

Exception

There were no WNA Adjustments billed to some customers in Morristown.

Discussion

For April, 1999, cycle one, the Company showed zero actual heating degree days and zero normal heating degree days for the majority of customers. Since there were no heating degree days, the Company's WNA formula calculated a zero WNA adjustment for these customers, when in fact, they should have had a credit adjustment based on the correct actual and normal heating degree days.

The net result of the Company's use of this inaccurate information was that the customers were **overcharged $3,973**.

Company Response

The revenue month for Cycle 1 in Morristown was input to the billing system as a summer month (a non WNA month). The billing system automatically recognized the WNA calculation should not be performed. This error was not corrected until later in the billing cycle.

VII. RECOMMENDATIONS AND CONCLUSIONS

The Staff concludes that, except for the above findings, the Company is correctly implementing the mechanics of the WNA Rider as specified by the TRA and included in the Company's tariff. (See Attachment 1) Since the amount of undercollection is immaterial (approximately $0.02 per customer), we recommend that the Company include this underrecovery in its next Refund Due Customers filing with the TRA. This is the method the Company has customarily used.

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER

Provisions for Adjustment

The base rate per therm/Ccf (100,000 Btu) for gas service set forth in any Rate Schedules utilized by the Tennessee Regulatory Authority in determining normalized test period revenues shall be adjusted by an amount hereinafter described, which amount is referred to as the "Weather Normalization Adjustment." The Weather Normalization Adjustment shall apply to all residential and commercial bills based on meters read during the revenue months of November through April.

Definitions

For purpose of this Rider:

"Regulatory Authority" means the Tennessee Regulatory Authority

"Relevant Rate Order" means the final order of the Regulatory Authority in the most recent litigated rate case of the Company fixing the rates of the Company or the most recent final order of the Regulatory Authority specifically prescribing or fixing the factors and procedures to be used in the application of this Rider.

Computation of Weather Normalization Adjustment

The Weather Normalization Adjustment shall be computed to the nearest one-hundredth cent per therm/Ccf by the following formula:

$$WNA_i = R_i \frac{(HSF_i \quad (NDD\text{-}ADD) \quad)}{(BL_i \quad + \quad (HSF_i \times ADD)}$$

Where

i = any particular Rate Schedule or billing classification within any such particular Rate Schedule that contains more than one billing classification

WNA_i = Weather Normalization Adjustment Factor for the i^{th} rate schedule or classification expressed in cents per therm/Ccf

R_i = weighted average base rate of temperature sensitive sales for the i^{th} schedule or classification utilized by the Tennessee Regulatory Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues

WEATHER NORMALIZATION ADJUSTMENT (WNA) RIDER (Continued)

HSF_i = heat sensitive factor for the i^{th} schedule or classification utilized by the Regulatory Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues

NDD = normal billing cycle heating degree days utilized by the Regulatory Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues

ADD = actual billing cycle heating degree days

BL_i = base load sales for the i^{th} schedule or classification utilized by the Regulatory Authority in the Relevant Rate Order for the purpose of determining normalized test year revenues

Filing with Regulatory Authority

The Company will file as directed by the Regulatory Authority (a) a copy of each computation of the Weather Normalization Adjustment, (b) a schedule showing the effective date of each such Weather Normalization Adjustment, and (c) a schedule showing the factors or values derived from the Relevant Rate Order used in calculating such Weather Normalization Adjustment.

Heat Use/Base Use Factors

	Residential		Commercial	
Town	Base use Ccf	Heat use Ccf/HDD	Base use Ccf	Heat use Ccf/HDD
Union City	13.906292	.156369	124.595029	.453633
Columbia Shelbyville Franklin Murfreesboro	13.035323	.173948	99.021858	.624513
Maryville Morristown	13.886330	.153366	111.454966	.658649
Johnson City Elizabethton Kingsport Greeneville Bristol	10.696903	.162066	169.773651	.611201