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October 3, 2003

Dale Hardy Roberts
Secretary/Chief Regulatory Law Judge
Missouri Public Service Commission
P.O. Box 360
Jefferson City, MO 65102

FILED[3]
OCT 0 3 2003
Missouri Public
Service Commission

Re: Case No. GR-2001-382

Dear Mr. Roberts:

Enclosed for filing on behalf of Missouri Gas Energy, please find an original and eight (8) copies of Supplemental Direct Testimony of Michael Langston and two schedules. Please note that Schedule MTL-35 has been designated as "Highly Confidential." One copy of a public version of this testimony is also enclosed.

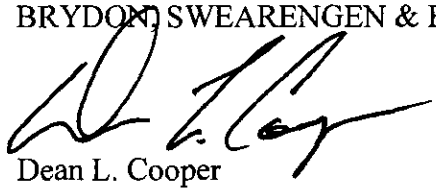
A copy of this filing is being provided to the General Counsel and Office of the Public Counsel.

Please see that this filing is brought to the attention of the appropriate Commission personnel.

I thank you in advance for your cooperation in this matter.

Sincerely,

BRYDON, SWEARENGEN & ENGLAND, P.C.

By: 
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Enclosure
cc: Doug Micheel
Tim Schwarz
Jim Deutsch
Jeff Keevil
Rob Hack
Mike Langston
Mac Ketchum

Exhibit No.:	
Issues:	Purchasing Practices: Storage
Witness:	Michael T. Langston
Sponsoring Party:	Missouri Gas Energy
Type of Exhibit:	Supplemental Direct
Case No.:	GR-2001-382 et al.
Date Prepared:	October 3, 2003

MISSOURI PUBLIC SERVICE COMMISSION

MISSOURI GAS ENERGY

CASE NO. GR-2001-382

SUPPLEMENTAL DIRECT TESTIMONY OF

MICHAEL T. LANGSTON

Jefferson City, Missouri

October 3, 2003

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri Gas Energy's Purchased Gas Adjustment Tariff Revisions to be Reviewed in its 2000-2001 Actual Cost Adjustment	)))	Case No. GR-2001-382
In the Matter of Missouri Gas Energy's Purchased Gas Cost Adjustment Factors to be Reviewed In its 1999-2000 Actual Cost Adjustment	)))	Case No. GR-2000-425
In the Matter of Missouri Gas Energy's Purchased Gas Cost Adjustment Factors to be Reviewed In its 1998-1999 Actual Cost Adjustment	)))	Case No. GR-99-304
In the Matter of Missouri Gas Energy's Purchased Gas Cost Adjustment Tariff Revisions to be Reviewed In its 1997-1998 Actual Cost Adjustment	)))	Case No. GR-98-167

AFFIDAVIT OF MICHAEL T. LANGSTON

STATE OF Texas)
) ss.
COUNTY OF Harris)

Michael T. Langston, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Supplemental Direct Testimony in question and answer form, to be presented in the above case; that the answers in the foregoing Supplemental Direct Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

MICHAEL T. LANGSTON

Subscribed and sworn to before me this 23rd day of September 2003.

Notary Public

My Commission Expires: 9-24-2004

SUSAN M LOHMANN
NOTARY PUBLIC STATE OF TEXAS
SEPTEMBER 24, 2004

SUMMARY

Staff Witness Jenkins proposed that MGE should have used storage in the winter of 2000-2001 based on flowing gas at a rate sufficient to serve demand based on the warmest November and December. Storage use would then equal the difference between flowing gas and total actual demand. Toward the end of the initial hearings in this case, MGE discovered that Staff Witness Jenkins' proposed approach was based on data that did not accurately reflect demand in the "warmest" November and December experienced in MGE's service territory. My supplemental direct testimony demonstrates that while MGE does not endorse Ms. Jenkins' recommended approach for storage utilization, if such an approach is being sponsored by Staff, then accurate customer demand data for the "warmest" November and December is required. When the accurate data is utilized in Ms. Jenkins' approach, it produces a significant reduction in the dollar value of her recommended disallowance. Thus, even if one were to assume that her theoretical approach is reasonable, Ms. Jenkins' disallowance calculation for the storage utilization issue in this proceeding must be reduced from $8.1 million to less than $200,000 to accurately account for the actual "warmest" November and December.

SUPPLEMENTAL DIRECT TESTIMONY OF

MICHAEL T. LANGSTON

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SUPPLEMENTAL DIRECT TESTIMONY OF

MICHAEL T. LANGSTON

CASE NO. GR-2001-382

OCTOBER 3, 2003

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Michael T. Langston. My business address is Panhandle Energy, 5444 Westheimer Road, Houston, Texas 77210-4967.

Q. ARE YOU THE SAME MICHAEL T. LANGSTON THAT PREVIOUSLY SUBMITTED DIRECT, REBUTTAL, AND SURREBUTTAL TESTIMONY IN THIS PROCEEDING?

A. Yes.

INTRODUCTION

Q. WHY IS SUPPLEMENTAL TESTIMONY BEING FILED BY THE PARTIES IN THIS PROCEEDING?

A. Supplemental testimony, both direct and rebuttal, is being filed in this proceeding as a result of the recognition by the parties late in the previously-scheduled hearing that the Commission needed more information about an apparent discrepancy in Staff Witness Jenkins' storage utilization calculations. During the course of Ms. Jenkins' cross-examination, MGE discovered that although Ms. Jenkins testified that she had used "warmest" month demand data in her storage utilization calculations, she actually used

numbers from a scenario that had been prepared by MGE for a totally different purpose and were not actual "warmest" month demand. In fact, the figures used by Ms. Jenkins reflect demand for November and December that is significantly higher than the actual customer demand for the warmest November and December in MGE's service territory. MGE made Staff aware of this discrepancy as soon as it was discovered since we determined that Ms. Jenkins' calculations produced a significantly different result when the actual "warmest" November and December demand was utilized. Since Ms. Jenkins did not have time to verify the use of this actual data and the resulting calculations at the initial hearing, the hearing was recessed.

Q. ARE THE ISSUES TO BE ADDRESSED IN THE PARTIES' SUPPLEMENTAL TESTIMONY THEN LIMITED TO THE ISSUE RELATING TO THE DATA USED FOR THE STORAGE UTILIZATION CALCULATIONS?

A. Yes, with the exception of a question that Commissioner Gaw asked of Ms. Jenkins regarding the hedging issue when she was being cross-examined. Specifically, the parties agreed after the hearing in June 2003 that the issues to be addressed in supplemental testimony and discovery would be limited to three primary issues surrounding the proposed storage utilization disallowance: (1) MGE's 1999/2000 heating season delivered natural gas volumes; (2) the use of those volumes in the spreadsheet developed by Ms. Jenkins; and (3) MGE's low case scenario used by Ms. Jenkins. In addition, the parties agreed that the supplemental testimony would also address the request for information made by Commissioner Gaw at the hearing regarding the percentage of monthly hedging (see Tr. pages 536-537).

Q. MR. LANGSTON, WILL YOUR SUPPLEMENTAL DIRECT TESTIMONY ADDRESS JUST THESE ISSUES?

A. Yes, except that my supplemental direct testimony will not address the question posed by Commissioner Gaw addressed to Ms. Jenkins at this time. I reserve the right to respond to any supplemental direct testimony that Ms. Jenkins may have on that issue in my supplemental rebuttal testimony.

STAFF'S PROPOSED STORAGE UTILIZATION CALCULATIONS

Q. BY WAY OF BACKGROUND, CAN YOU SUMMARIZE THE METHOD THAT MS. JENKINS PROPOSED IN HER DIRECT TESTIMONY REGARDING STORAGE UTILIZATION?

A. As I have said earlier, Ms. Jenkins developed her own approach regarding how MGE's natural gas in storage should have been utilized in the winter of 2000/2001. Ms. Jenkins suggests that MGE utilized too much of its storage gas in November and December 2000, which as a consequence, required the use of a greater level of flowing supplies in the latter portion of that winter and exposed customers to higher natural gas prices that were being experienced at that time. Ms. Jenkins has testified that if MGE had instead determined and scheduled its first-of-month flowing supply levels based on historical "warmest month" natural gas requirements, and then based its monthly storage withdrawals on the difference between total monthly demand and "warmest month" requirements, MGE would not have utilized as much storage gas in the early part of the winter. At pages 509 through 511 of the transcript, particularly page 511, lines 8-14, and

also in her exchange with Commissioner Gaw on pages 519 through 524 of the transcript, Ms. Jenkins repeatedly speaks of the "warmest month" and the "warmest month on record" as the criteria that she used in her analysis. Based on her recommended "warmest month" approach, Ms. Jenkins calculated a recommended disallowance of $8,051,049 for the storage utilization issue in this proceeding.

Q. DOES MS. JENKINS ACKNOWLEDGE THAT THERE CAN BE MORE THAN ONE PRUDENT APPROACH TO STORAGE UTILIZATION?

A. Yes. As discussed in my rebuttal and surrebuttal testimony, Ms. Jenkins suggested in her direct testimony that there are a number of ways in which MGE's storage utilization could have been conducted prudently. For example, Ms. Jenkins states that:

> Staff believes that it is reasonable to expect the Company to have sufficient "assigned term supplies" – planned first-of-month (FOM) flowing supplies – scheduled to cover warm weather requirements for November through January. (Direct Testimony of Lesa Jenkins, Case No. GR-2001-382, January 15, 2003, page 19, lines 19-21.)

This is what Ms. Jenkins has referred to as her "warmest month requirements" approach. In this context, "warmest month" is supposed to mean a month in which historically high (or warm) temperatures are actually experienced in MGE's service territory, thus leading to historically low weather-sensitive natural gas usage by MGE's customers, since the majority of residential natural gas usage is for space heating. Again, for example, Ms. Jenkins testified (see page 506, lines 17-20 of the transcript) that her approach is based on the "warmest month on record". Under this approach, Ms. Jenkins has suggested that MGE should have scheduled first-of-month flowing supplies for each winter month based on the lowest demand that had been experienced for that month based on historical usage.

In addition, Ms. Jenkins has suggested that demand that occurred above the "warmest month" requirements would be met by planned storage withdrawals.

An additional approach that Ms. Jenkins has supported in her direct testimony is that storage withdrawals would be based on the distribution of normal heating degree days throughout the winter. In other words, she has argued that MGE should first determine its storage withdrawal volumes for each month based on the distribution of heating degree days and then any additional volumes that are needed be supplied with flowing supplies. In this regard, Ms. Jenkins has specifically stated in her direct testimony that:

> Staff would also expect that the planned storage withdrawals for normal weather would be distributed based on the normal distribution of heating degree days in the heating season months – thus more storage would be utilized in the coldest heating season month of January and the least storage would be utilized in the warmest heating season month of November. (Direct Testimony of Lesa Jenkins, Case No. GR-2001-382, January 15, 2003, page 19, lines 19-21.)

Thus, under this alternative approach suggested by Ms. Jenkins, planned storage utilization by month would be based on the distribution of normal heating degree days over the winter season, and clearly there is a difference between this approach and her "warmest month requirements" approach noted above.

Q. SINCE MS. JENKINS SUPPORTED AT LEAST TWO ALTERNATIVE APPROACHES FOR DETERMINING STORAGE UTILIZATION AND FLOWING SUPPLIES IN HER DIRECT TESTIMONY, HOW DID MS. JENKINS CALCULATE HER PROPOSED DISALLOWANCE IN THIS PROCEEDING?

A. Ms. Jenkins' storage utilization calculation represents a hybrid of the two approaches that she supported in her direct testimony. Schedule 13 of her direct testimony presents

the storage utilization calculations she utilized, which were in turn ultimately utilized to develop Staff's proposed $8,051,049 disallowance shown on Schedule 8 of her direct testimony. Specifically, Ms. Jenkins utilized the "warmest month requirements" approach for only November and December 2000, while she utilized the distribution of heating degree day approach for January, February and March 2001.

Therefore, *for November and December only*, Ms. Jenkins determined the level of first-of-month flowing supplies based on her "warmest month requirements" approach, with the storage withdrawals for those months then falling out as the difference between total monthly demand and the level of first-of-month flowing supplies. In contrast, ***for January through March***, Ms. Jenkins instead first determined the level of storage withdrawals based on her "normal distribution of heating degree day" approach, with the level of flowing supplies for those months then falling out as the difference between total monthly demand and the projected monthly storage withdrawals.

Q. IN CALCULATING STAFF'S PROPOSED STORAGE UTILIZATION DISALLOWANCE, HAS MS. JENKINS RELIED UPON ACCURATE DATA CONCERNING WARMEST MONTH REQUIREMENTS IN MGE'S SERVICE TERRITORY?

A. No. I have described in detail in my direct, rebuttal and surrebuttal testimony in this proceeding that MGE does not agree with Ms. Jenkins' method for evaluating storage utilization. However, *even if one were to assume for the sake of argument that her method was appropriate for evaluating prudent storage utilization*, **Ms. Jenkins has not**

utilized accurate data concerning "warmest month requirements" in her analysis to calculate the first-of-month flowing supplies, and in turn, the monthly storage withdrawals, for November and December 2000. Specifically, the critical flaw MGE has discovered is that Ms. Jenkins did not utilize the **actual** historical warmest month requirements for her analysis.

Q. PLEASE EXPLAIN HOW MS. JENKINS, ON SCHEDULE 13 OF HER DIRECT TESTIMONY, CALCULATED HER PROPOSED LEVEL OF FIRST-OF-MONTH FLOWING SUPPLIES FOR NOVEMBER AND DECEMBER 2000, AND IN TURN, THE STORAGE WITHDRAWALS FOR THOSE SAME MONTHS.

A. First, on Schedule 13 of her direct testimony, Ms. Jenkins assumed that the "warmest month" requirement for November 2000 was 5,587,935 Dth, or an average of 186,265 Dth/day. She shows this on her Schedule 13-1, Table 1, column (c), line 25; and Schedule 13-2, Table 3-2, column (c), line 89, respectively. After determining the estimated "warmest month" requirement for November, Ms. Jenkins then, on Schedule 13-2, Table 3-2, calculated a storage withdrawal level for November by subtracting her proposed first-of-month flowing supply level from MGE's total normal natural gas demand for November.

Specifically, Ms. Jenkins took MGE's normal daily average demand for November plus fuel requirements (i.e., 247,512 Dth/day + 2,715 Dth/day = 250,227 Dth/day; see Schedule 13-2, Table 3-2, column (d), lines 80 and 85) and subtracted the first-of-month flowing supply level she calculated based on her so-called "warmest month requirement"

of 186,265 Dth/day. This was adjusted downward to 181,265 Dth/day to account for MGE's interruptible storage contract of 5,000 Dth/day to derive her proposed storage withdrawal level for November of 68,962 Dth/day. This is shown on Ms. Jenkins' Schedule 13, Table 3-2, column (d), line 84. On the basis of this data, Ms. Jenkins concluded that since the "warmest month requirements" for November 2000 should have been 186,265 Dth/day, MGE's storage withdrawals should have been 68,962 Dth/day. A summary of Ms. Jenkins' calculations on Schedule 13 are shown in Table 1 below.

TABLE 1: SUMMARY OF MS. JENKINS' CALCULATION OF NOVEMBER FLOWING SUPPLIES AND STORAGE WITHDRAWALS

Description	Amount (Dth/day)
1. Normal Daily Avg. Demand – November	250,227
2. Less: First-of-Month Flowing Supplies ("warmest month")*	(181,265)
3. Difference (proposed storage withdrawal level)	68,962

* Adjusted downward from 186,265 Dth/day as a result of MGE's interruptible storage contract for 5,000 Dth/day

Q. ASSUMING FOR THE SAKE OF ARGUMENT THAT HER APPROACH IS APPROPRIATE, DID MS. JENKINS UTILIZE ACCURATE "WARMEST MONTH" REQUIREMENTS FIGURES IN HER CALCULATIONS?

A. No. As noted above, Ms. Jenkins assumed that MGE's "warmest month requirements" for November were 5,587,935 Dth, or an average of 186,265 Dth/day. As described in her direct testimony and as shown on Schedule 13-1, the warmest month requirement for

November was obtained from the Low Case scenario as presented in MGE's Reliability Report dated July 1, 2000.[1] The "Low Case" figure that Ms. Jenkins relied upon from the Reliability Report was a figure utilized in the Reliability Report, but it **does not** represent the actual demand for the warmest November in MGE's service territory. As I have stated repeatedly on the record in this proceeding (see, e.g., Langston Surrebuttal Testimony, page 4, lines 11-19), the information contained in the Reliability Report was not prepared for, nor is it now appropriate to be utilized for, determining how storage should be dispatched throughout the winter.

Q. IS ACTUAL DATA CONCERNING WARMEST MONTH REQUIREMENTS IN NOVEMBER FOR MGE'S SERVICE TERRITORY AVAILABLE?

A. Yes. This information has been in the possession of Ms. Jenkins since at least the filing of direct testimony. As shown on Schedule 7-4 of Ms. Jenkins' direct testimony, the warmest November experienced in MGE's service territory in the past forty years occurred in November 1999 -- the winter immediately prior to the winter of 2000/2001 that is the subject of this proceeding. MGE's actual demand for November 1999 was 4,414,515 Dth, or a daily average of 147,151 Dth/day. That data was presented in my direct testimony (Exhibit 3) in this proceeding on Schedule MTL-14 which was filed on January 15, 2003. Ms. Jenkins posed several data requests to Mr. Noack of MGE on May 22, 2003. These data requests to Mr. Noack were labeled Data Requests No. 146 through No. 156. The responses to these data requests demonstrate conclusively that the

[1] See, e.g., Direct Testimony of Lesa Jenkins, Case No. GR-2001-382, January 15, 2003, Schedule 13-1 HC, line 31, columns A and B -- "Using Company heat load and base load factors in Reliability Report with historical HDD (heating degree days)".

actual metered demand in the month of November and December 1999 was in fact as represented in my direct testimony on Schedule MTL-14.

Making the same adjustment to the actual "warmest month" demand (i.e., 147,151 Dth/day for November 1999) as Ms. Jenkins did on Schedule 13 for MGE's 5,000 Dth/day interruptible storage contract, produces a daily average first-of-month flowing supply level for November 2000 of 142,151 Dth/day. Therefore, assuming her approach was correct in the first place, Ms. Jenkins should have utilized 142,151 Dth/day on Schedule 13, Table 3-2, column (d), line 86, instead of 181,265 Dth/day, in order to properly reflect demand in the "warmest" November. The use of the actual number versus an estimate from the Reliability Report produces a difference of 39,114 Dth/day, or a difference of over 1.1 million dekatherms for the month of November.

Q. DID MS. JENKINS ALSO USE INACCURATE INFORMATION IN HER CALCULATION OF FIRST-OF-MONTH FLOWING SUPPLIES FOR DECEMBER 2000?

A. Yes. Similar to the error for November 2000, Ms. Jenkins also used the wrong data in order to calculate the level of first-of-month flowing supplies based on "warmest month" requirements for December 2000. Specifically, as shown on Schedule 13-1, Table 1, column (d), line 25, Ms. Jenkins assumed that MGE's warmest month requirements for December were 10,592,504 Dth, or an average of 341,694 Dth/day (see Schedule 13-1, Table 1, column (d), line 25; and Schedule 13-2, Table 3-2, column (e), line 89, respectively). However, again, this warmest month requirement came from the "Low

Case" estimate found in the 2000 Reliability Report, but it **does not** represent the demand likely to be experienced in the "warmest" December as intended by Ms. Jenkins' stated approach.

As shown on Schedule 7-4 of Ms. Jenkins' direct testimony, the warmest December in the past forty years was December 1965. Since MGE's system and, thus, its demand, have changed significantly since that time, it would have been more appropriate for Ms. Jenkins to utilize the warmest December in most recent history. In fact, the warmest December in recent history occurred in December 1999, or, again, the winter immediately prior to the winter of 2000/2001 that is the subject of this proceeding. MGE's actual demand for December 1999 was 9,843,466 Dth, or a daily average of 317,531 Dth per day. That data was also presented in my direct testimony (Exhibit 3) in this proceeding on Schedule MTL-14. Again, this has been verified as the actual demand through data request responses by MGE subsequent to the initial hearing in this case. As with November, the problem with Ms. Jenkins' calculation is that she has assumed a level of demand for "warmest month" that is significantly higher than the level MGE actually experienced in a recent "warmest" December. In this situation, she assumed a demand level that was 24,163 Dth/day or nearly 750,000 dekatherms more than actually experienced for the month of December.

Q. WHAT WOULD BE THE RESULT OF MS. JENKINS' CALCULATIONS AND PROPOSED STORAGE DISALLOWANCE IF YOU WERE TO CALCULATE THE NOVEMBER AND DECEMBER 2000 FIRST-OF-MONTH FLOWING

SUPPLY FIGURES BASED ON MGE'S ACTUAL WARMEST MONTH DEMAND?

A. Schedule MTL-35 attached hereto is an exact replica of Ms. Jenkins' Schedule 13 from her direct testimony, including all formulas and calculations, with the exception that the numbers for MGE's actual warmest month demand for November and December have been substituted for Ms. Jenkins' incorrect data. Everything else, including the formulas that are an inherent part of her recommended method, remain the same as she originally presented them. For ease of review, the pagination on Schedule MTL-35 is the same as Ms. Jenkins presented on her Direct Schedule 13.

Specifically, on Schedule MTL-35, Table 1, column (c), line 25, Ms. Jenkins' "warmest month" requirement for November of 5,587,935 Dth has been replaced with MGE's actual warmest demand for November in the past forty years (i.e., November 1999) of 4,414,515 Dth. The average daily demand equivalent of this corrected demand data can also be seen on Schedule MTL-35, Table 3-2, page 13-2, column (c), line 89, where Ms. Jenkins' warmest month requirement for November of 186,265 Dth/day has been replaced with MGE's actual average warmest month demand for November in the past forty years (i.e., November 1999) of 147,151 Dth/day. Similarly, on Schedule MTL-35, Table 1, column (d), line 25, Ms. Jenkins' "warmest month" requirement for December of 10,592,504 Dth has been replaced with MGE's actual warmest demand for November in the past forty years (i.e., November 1999) of 9,843,466 Dth. (The average daily demand equivalent of this corrected demand data can also be seen on Schedule MTL-35, Table 3-2, page 13-2, column (e), line 89, where Ms. Jenkins' warmest month

requirement for December of 341,694 Dth/day has been replaced with MGE's actual warmest month demand for December experienced since 1965 (i.e., December 1999) of 317,531 Dth/day.)

Schedule MTL-36 is an exact replica of Ms. Jenkins' Schedule 8-1 from her direct testimony, with the exception that the proposed disallowance reflects the actual warmest month demand for November and December discussed above. As can be seen on Schedule MTL-36, with ***only*** these two changes to reflect the actual "warmest" November and December demand in order to be consistent with both the theoretical basis for and explanation of her approach, Ms. Jenkins' proposed storage utilization disallowance calculation nearly evaporates, declining from $8,051,049 to $182,159. Therefore, even if one were to assume that Ms. Jenkins' storage utilization method were appropriate - which MGE does not support - her proposed storage utilization disallowance should be significantly reduced.

In fact, Ms. Jenkins' proposed storage utilization, given accurate data, is very similar to what MGE actually did in the winter of 2000/2001. For example, in Exhibit 3 in this case, on Schedule MTL-14, page 1, column (e) shows the volumes MGE actually withdrew from storage and column (f) presents Staff's proposed storage withdrawals based on Ms. Jenkins' analysis. As can be seen, the trend of MGE's actual storage utilization and Staff's proposed storage utilization are nearly identical -- high storage utilization in November and December 2000, a significant reduction in storage withdrawals in January 2001 to account for the large withdrawals in the two previous

months, with a return to more normal level storage withdrawals for February and March. Therefore, even if one were to accept the theoretical basis of Ms. Jenkins' storage utilization method, her proposal—once corrected to be true to its stated purpose—is very similar to what MGE actually did during the winter of 2000/2001. Thus, any claim of imprudence on MGE's part is totally unsupported by the evidence.

Q. DO YOU KNOW AT THIS TIME WHETHER MS. JENKINS AGREES THAT THE ACTUAL WARMEST MONTH NUMBERS SHOULD BE USED IN HER CALCULATIONS ON SCHEDULE 13 INSTEAD OF THOSE SHE TOOK FROM THE LOW CASE SCENARIO OF THE RELIABILITY REPORT?

A. No, I do not know what her position is. We attempted to determine her position by sending her data requests in August 2003, but were told at that time she would tell us her position in her supplemental direct testimony. As I have explained here, and as we explained to Ms. Jenkins the day we discovered this situation, we have not attempted to change her theory or underlying approach. All we have done is take two numbers that are already in the evidentiary record, and that reflect the undisputed historical usage in the warmest November and December recently experienced in the MGE service area, and substitute them for estimates she took from a different, and inappropriate, source. Putting only those two actual numbers into her spreadsheet dramatically changes the amount of the proposed disallowance. If her approach as she has testified is to truly reflect the "warmest month" usage, then what I have presented here cannot be ignored by the Commission.

Q. CAN YOU EXPLAIN WHY MGE DID NOT DISCOVER THIS SITUATION EARLIER AND BRING IT TO THE ATTENTION OF THE STAFF AND THE COMMISSION IN THE NORMAL COURSE OF THE PREPARED TESTIMONY THAT HAS ALREADY BEEN FILED IN THIS CASE?

A. Due to the complexities associated with Ms. Jenkins' spreadsheets that comprise Schedule 13 of her direct testimony, and the differences between what her testimony states and what is actually done in the spreadsheets, the problem was simply not discovered sooner. The problem only became apparent when Ms. Jenkins was being cross-examined and she presented additional explanation as to her recommended approach. As noted previously, as soon as MGE became aware of the inaccurate use of data in Ms. Jenkins' storage utilization calculations, MGE immediately contacted Staff and asked to meet with them informally to tell them what we had discovered. If MGE had discovered the discrepancy earlier in this case, it would have been addressed at that time.

Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL DIRECT TESTIMONY?

A. Yes, it does.

Missouri Gas Energy
GR-2001-382

Table 1: First of Month Nominations on Duke must be made 6 business days before FOM. So, Staff reviewed decisions made on 10/24/00, 11/22/00, 12/21/00, 1/24/01, and 2/21/01.

Information Known As Of:	**10/24/2000**	**11/22/2000**		**12/21/2000**		**01/24/2001**	**02/21/2001**
From Storage Analysis Report:	Oct-00	Nov-00		Dec-00		Jan-01	Feb-01
Forecasted demand and storage inj & w/d entered for actual HDD through:	10/23/2000	11/21/2000		12/20/2000	Rev 12/20 to include 12/31 [4]	01/23/2001	02/20/2001
Actual HDD through this date	256	838		1,368	1,368	1,076	956
Forecasted HDD for remainder of month	77	246		514	553	254	231
Known & expected HDD for month	333	1,084		1,882	1,921	1,330	1,187
Expected monthly HDD as % of normal HDD (calculated this - not in report)		165.0%		175.4%	179.0%	109.2%	125.5%
EOM Storage Balances			Revised Nov-00 to include ISS [3]		Rev 12/20 to include 12/31 [4]		
TSS	14,948,357	10,708,780	11,208,780	4,227,928	4,112,139	3,927,321	1,637,647
FSS	1,121,968	1,121,952	1,121,952	1,041,777	1,041,777	1,041,777	1,041,777
PEPL/WS	1,453,926	1,009,107	1,009,107	598,035	591,696	372,676	169,435
Total Storage Inventory	17,524,251	12,839,839	13,339,839	5,867,740	5,745,612	5,341,774	2,848,859
% of MSQ	98.6%	72.3%	75.1%	33.0%	32.3%	30.1%	16.0%
Inventory remaining to be filled [1]	243,378						
From Company Reliability Report:	Nov-00	Dec-00		Jan-01		Feb-01	Mar-01
Forecasted Demand:							
Base Case - 30 Year Normal Weather	7,400,361	12,375,465		13,868,421		11,213,497	8,423,472
Low Case (1)	**4,414,515**	**9,843,466**		10,077,482		8,819,953	6,845,539
High Case	9,140,788	17,896,663		16,186,584		13,732,070	10,514,864
Historical HDD data:	Nov-00	Dec-00		Jan-01		Feb-01	Mar-01
warmest month HDD	398	763		841		646	529
normal month HDD	657	1,073		1,218		946	691
coldest month HDD	877	1,606		1,629		1,274	1,057
Using Company heatload & baseload factors in Reliability Report w/ historical HDD	Nov-00	Dec-00		Jan-01		Feb-01	Mar-01
Number of days in month	30	31		31		28	31
estimated demand w/ warmest HDD	5,591,673	9,457,584		10,273,551		8,090,819	7,009,684
estimated demand w/ normal HDD	8,301,101	12,700,529		14,217,391		11,229,153	8,704,384
estimated demand w/ coldest HDD	10,602,546	18,276,302		18,516,908		14,660,398	12,533,151
From Company Supply/Demand Summary:	Nov-00	Dec-00		Jan-01		Feb-01	Mar-01
Normal Monthly Demand	7,425,361	12,400,465		13,893,421		11,238,497	8,448,472
Daily Average Demand	247,512	400,015		448,175		401,375	272,531
Demand to be met w/ storage w/d [2]							
TSS	138,333	91,935		49,355		79,914	61,115
FSS	0	0		0		0	0
PEPL/WS	4,272	6,339		6,615		6,994	4,120
Total Storage w/d	142,605	98,274		55,970		86,908	65,235
Fuel Requirements	2,715	7,909		13,036		10,426	6,810
Daily Avg Demand still to be met (with flowing or ?)	107,622	309,650		405,241		324,893	214,106
Less Planned Flowing Supplies	107,622	289,650		405,241		304,893	189,106
Daily Avg Demand still to be met with ____	0	20,000		0		20,000	25,000
From DR28 response:	Nov-00	Dec-00		Jan-01		Feb-01	Mar-01
Planned Normal Storage Withdrawals	4,150,166	3,454,240		3,464,251		3,162,867	2,247,507

(1) NOTE: THE LOW CASE FOR NOV. AND DEC. 2000 HAS BEEN REPLACED WITH THE LOWEST ACTUAL NOV. AND DEC. DEMAND

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Table 2: Storage Inventory - Actuals

	EOM Storage Inventory [5]						
	Sep-00	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01
Williams SA-0014 (TSS)	14,122,908	15,593,505	9,966,153	3,747,983	3,784,819	2,515,613	870,709
Williams SA-0072 (FS)	975,369	1,121,952	1,121,952	1,041,777	1,041,777	41,777	0
PEPL WS-012626	778,088	0	0	0	0	0	0
PEPL WS-012627	165,143	1,051,108	1,004,903	575,538	368,179	169,435	39,824
Total	16,041,508	17,766,565	12,093,008	5,365,298	5,194,775	2,726,825	910,533

Given the information known when decisions were made regarding first-of-month nominations, Staff believes that the FOM nominations would have been different - November FOM nominations would have been higher to allow storage to be reserved for the normally colder months of December and January and to assure that the Company had sufficient withdrawal capabilities to cover a possible late winter cold snap. Storage balances and FOM nominations for this option is presented below:

Table 3-1: Storage withdrawals expected based on distribution of normal HDD

	Normal HDD	Monthly Distr.	Storage Distr.
Nov-00	657	14.3%	2,474,336
Dec-00	1,073	23.4%	4,122,699
Jan-01	1,218	26.6%	4,679,820
Feb-01	946	20.6%	3,634,737
Mar-01	691	15.1%	2,677,578
Total	4,585	100.0%	17,589,170

Storage distribution is based on the percentage of normal HDD occurring in that month times the total storage inventory. For November, would use the total MSQ less 500,000 allowed by Company for injections in Nov if weather is warmer than normal. For Dec - Mar, Company would know the beginning balance at start of November, so adjust accordingly - including additional 150,000 ISS allowed in Nov.

check: Oct end-of-month inv = 17,766,565

total expected storage if adjust Nov by 150,000 from ISS 17,739,170

Table 3-2: Staff's calculation of expected storage withdrawal and flowing supplies for Company planned normals

	Nov-00	Nov-00 Rev	Dec-00	Dec-00 Rev	Jan-01	Feb-01	Mar-01
Normal Monthly Demand	7,425,361	7,425,361	12,400,465	12,400,465	13,893,421	11,238,497	8,448,472
Daily Average Demand	247,512	247,512	400,015	400,015	448,175	401,375	272,531
Daily Demand to be met w/ storage w/d	82,478		132,990		150,962	129,812	86,373
plus storage w/d allowed for ISS in Nov	5,000						
less storage for excess from prior month			(24,726)		(108,830)	47,544	16,145
Subtotal of daily storage w/d	87,478	108,076	108,264	90,393	42,132	177,356	102,518
Daily Fuel Requirements	2,715	2,715	7,909	7,909	13,036	10,426	6,810
Expected Daily Flowing Supplies	162,749	142,151	299,660	317,531	419,079	234,445	176,823
% of planned normal met with storage (includes fuel)	35.0%	43.2%	26.5%	22.2%	9.1%	43.1%	36.7%
% of planned normal met with flowing supplies (includes fuel)	65.0%	56.8%	73.5%	77.8%	90.9%	56.9%	63.3%
Check if planned daily flowing covers warm weather requirements (used Company numbers for low-case)	147,151		317,531		325,080	314,998	220,824

storage would need to be adjusted prior to making nominations based on expected end-of-month inventory for previous month

This is the warm weather requirement less 150,000 for ISS in Nov

This is the warm weather requirement less any excess storage w/d not pulled in Nov

Did not adjust for Feb & Mar - not as much of an issue in Feb and Mar since most of winter has past and have better handle on storage volumes available to meet requirements for the rest of the winter

REFLECTS MGE's ACTUAL WARMEST NOVEMBER AND DECEMBER

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Table 3-3: Effect of revised daily flowing supplies on expected end-of-month (EOM) storage inventory

Information Known As Of:	11/22/2000	12/21/2000	01/24/2001	02/21/2001
From Storage Analysis Report:	Nov-00	Dec-00	Jan-01	Feb-01
Forecasted demand and storage inj & w/d entered for actual HDD through:	11/21/2000	12/20/2000	01/23/2001	02/20/2001
Actual HDD through this date	838	1,368	1,076	956
Forecasted HDD for remainder of month	246	553	254	231
Known & expected HDD for month	1,084	1,921	1,330	1,187
Expected monthly HDD as % of normal HDD (calculated this - not in report)	165.0%	179.0%	109.2%	125.5%
Revised Expected EOM Storage Balances:				
EOM Storage Balances from above	13,339,839	5,745,612	5,341,774	2,848,859
Plus additional inv from prior month(s)		1,035,870	1,900,181	2,329,159
Plus additional demand that would have been covered with flowing supplies instead of storage w/d	1,035,870	864,311	428,978	(1,972,544)
	14,375,709	7,645,793	7,670,933	3,205,474
Storage inv expected for normal weather	15,142,225	11,019,530	6,339,710	2,704,973
Excess from storage for colder weather	766,516	3,373,737	(1,331,223)	(500,501)
So need to recover any excess w/d in next month (per day) or can w/d any additional storage	24,726	108,830	(47,544)	(16,145)

Table 3-4: Effect of revised daily flowing supplies on actual end-of-month storage inventory

	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Total	
Actual EOM Storage Balances	12,093,008	5,365,298	5,194,775	2,726,825	910,533	16,856,032	Actual
Plus additional inv from prior month(s)		1,035,870	1,900,181	2,329,159	356,615		
Plus additional demand that would have been covered with flowing supplies instead of storage w/d	1,035,870	864,311	428,978	(1,972,544)	(380,773)		
	13,128,878	7,265,479	7,523,934	3,083,440	886,375		
Actual Expected Net Withdrawals	4,637,687	5,863,399	(258,455)	4,440,494	2,197,065	16,880,190	Expected

Table 3-5: Comparison of Company and Staff FOM planned flowing supplies and storage withdrawals

		Company Planned Demand to be met with:				Staff revision: Expected storage withdrawal and flowing supplies for Company planned normals:			
	Normal Daily Avg Demand + Fuel	Daily Flowing Supplies	Flowing Supplies as % of Daily Avg for Month	Daily Storage w/d [6]	Storage as % of Daily Avg for Month	Daily Flowing Supplies	Flowing Supplies as % of Daily Avg for Month	Daily Storage w/d [6]	Storage as % of Daily Avg for Month
Nov-00	250,227	107,622	43.0%	142,605	57.0%	142,151	56.8%	108,076	43.2%
Dec-00	407,924	289,650	71.0%	98,274	24.1%	317,531	77.8%	90,393	22.2%
Jan-01	461,211	405,241	87.9%	55,970	12.1%	419,079	90.9%	42,132	9.1%
Feb-01	411,801	304,893	74.0%	86,908	21.1%	234,445	56.9%	177,356	43.1%
Mar-01	279,341	189,106	67.7%	65,235	23.4%	176,823	63.3%	102,518	36.7%

	A	B	C	D	E	F	G	H	I	J
1	**Missouri Gas Energy**									
2	**GR-2001-382**									
3										
4										
5										
132	[1] Company states that wants to allow 500,000 so that if November is warmer than normal, still have room to inject; Company also stated in DR62 since storage was fuller than anticipated moved 500,000 to an ISS contract to allow for November injections									
133										
134	[2] Storage w/d planned for Nov-00 would include planned 4,000,000 TSS + 150,000 ISS (or 138,333/day) plus the PEPL/WS w/d (128,160 planned for November compared to 150,166 noted as normal w/d in the DR28 response)									
135										
136	[3] Report for numbers in previous column shows Oct 31 balance as 15,093,505 which would not include the ISS balance of 500,000 so TSS is adjusted to account for the ISS									
137										
138	[4] The forecasted HDD for the remainder of Dec is only through 12/30/00; so the HDD and the storage balances are adjusted to include 12/31/00 - based on Company rationale. Additional demand for 39 HDD is 433,822 (taken from 12/2 which had 39 HDD).									
139				So if 12/31 demand is:	433,822					
140				These are taken from the Storage	(51,219)	KN 107th & Elm				
141				Analysis Report and are the same	(9,997)	Served KPOC				
142				each day for the forecasted dates of 12/21 - 12/30	(25,835)	Served PEPL (this looks like it includes WS and Dec plan is 6,339/day from WS)				
143					(230,982)	WNG Flowing				
144					115,789	needed from TSS				
145										
146	[5] Company states that storage reports available from Williams about the 13th of the month for the prior month. So Company knew actual prior months EOM balance when nominations made for following month.									
147										
148	[6] Recall that November storage withdrawals allow for 5,000 per day from ISS									

(Replica of Jenkins' Direct Schedule 8-1 with Two Changes Noted in Supplemental Testimony)

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Company planned hedge considers normal planned storage withdrawals and volumes w/ fixed price
Staff calculations for hedge effect compare Company planned hedges to a minimal hedge of 30% of normal requirements
Staff proposed adjustment - Do not accept Company forecasts for flowing supplies and storage w/d for First-of-Month as Reasonable, so Revised FOM

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
7							(C+ D)	(B - G)	0 for H<0, Else =H			(J - K)	(I x L)	(F - E)			(P - O)	(Q x N)	(M+R)
8							Hedge Effect							Storage Effect					
9	Month	30% of Normal Req	Company's Normal Monthly Storage w/d	Volumes w/ Fixed Price	Actual Volumes Withdrawn	Expected Storage Withdrawals (for revised flowing supplies)	Planned Hedged Volumes	30% Normal Planned Hedged	Volumes Short for Minimum Planned Hedge	NYMEX close	Available Hedged Price	Futures Gain/ (Loss)	(Credit)/ Charge for Minimum Hedge	Storage Expected - Actual	Storage WACOG	Williams FOM	FOM - WACOG	Storage (Credit)/ Charge	Total Adjustment
10	Nov-00	2,220,108	4,150,166	0	5,673,557	4,637,687	4,150,166	(1,930,058)	0	$ 4.541	$ 4.652	$ (0.111)	$0	(1,035,870)	$ 4.261	$ 4.430	$ 0.169	$ (174,684)	$ (174,684)
11	Dec-00	3,712,640	3,454,240	620,000	6,727,710	5,863,399	4,074,240	(361,600)	0	$ 6.016	$ 4.726	$ 1.290	$0	(864,311)	$ 4.224	$ 5.900	$ 1.676	$ (1,448,567)	$ (1,448,567)
12	Jan-01	4,180,526	3,464,251	620,000	170,523	(258,455)	4,084,251	76,275	76,275	$ 9.978	$ 4.705	$ 5.273	$402,198	(428,978)	$ 4.279	$ 9.980	$ 5.701	$ (2,445,604)	$ (2,043,406)
13	Feb-01	3,364,049	3,162,867	2,237,309	2,467,950	4,440,494	5,400,176	(2,036,127)	0	$ 6.293	$ 4.475	$ 1.818	$0	1,972,544	$ 4.279	$ 6.290	$ 2.011	$ 3,967,515	$ 3,967,515
14	Mar-01	2,527,042	2,247,507	0	1,816,292	2,197,065	2,247,507	279,535	279,535	$ 4.998	$ 4.239	$ 0.759	$212,167	380,773	$ 4.285	$ 5.030	$ 0.745	$ 283,499	$ 495,666
15	Total	15,984,366	16,479,031	3,477,309	16,856,032	16,880,190	19,956,340	(3,971,975)	355,810				$614,365	24,158				$ 182,159	$ 796,624

	FOM Plans vs Expected			
18 Month	Company Planned Flowing Supplies	Expected Flowing Supplies	Company Planned Storage w/d	Expected Planned Storage w/d
19 Nov-00	3,228,660	4,264,530	4,278,150	3,242,280
20 Dec-00	8,979,150	9,843,461	3,046,494	2,802,183
21 Jan-01	12,562,471	12,991,449	1,735,070	1,306,092
22 Feb-01	8,537,004	6,564,460	2,433,424	4,965,968
23 Mar-01	5,862,286	5,481,513	2,022,285	3,178,058
24 Total	39,169,571	39,145,413	13,515,423	15,494,581

Proposed Disallowance Declines to $182,159 from $8,051,049

Sources:

a winter months of 2000/01 ACA period
b see worksheet "Normals"
c from DR #28; see worksheet "Normals"
d DR #2 - Duke Invoices
e from worksheet "Storage Actuals"
f see worksheet "Normals"
g column c + column d
h column b - column g
i if column h is < 0, then enter 0; if column h is > 0 then enter number in column h
j see sheet "NYMEX close"
k see sheet "Available Hedge Price"
l column j - column k
m column i x column l
n column f - column e
o see sheet "hedges"
p Inside FERC's Gas Market Report Williams index for Nov 2000 - March 2001
q column p - column o
r column q x column n
s column m + column r