

Mail Stop 3561

June 1, 2010

Fred E. Meisenheimer
Senior Vice President and Chief Financial Officer
Atmos Energy Corporation
Three Lincoln Centre, Suite 1800
5430 LBJ Freeway
Dallas, Texas 75240

**Re: Atmos Energy Corporation
Form 10-K for the Fiscal Year Ended September 30, 2009
Filed November 16, 2009
Form 10-Q for the Fiscal Quarter Ended December 31, 2009
Filed February 3, 2010
Form 10-Q for the Fiscal Quarter Ended December 31, 2009
Filed May 6, 2010
File No. 001-10042**

Dear Mr. Meisenheimer:

We have reviewed your filings and have the following comments. You should comply with the comments in all future filings, as applicable. Please confirm in writing that you will do so and also explain to us in sufficient detail for an understanding of the disclosure how you intend to comply by providing us with your proposed revisions. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the Fiscal Year Ended September 30, 2009

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 35

Results of Operations, page 40

Consolidated Results, page 41

1. We note consolidated income in 2009 was favorably impacted by an \$11.3 million one-time tax benefit associated with updating the rates used to determine your deferred taxes. Please tell us how this tax benefit arose and whether it relates to enacted changes in tax rates. Please also tell us why this income tax benefit is properly recognized in 2009. In addition, based on disclosure in Note 11 to the financial statements, we note that state taxes, net of federal benefit, resulted in a slight reduction in your effective tax rate in 2009, whereas in 2008 and 2007, state taxes, net of federal benefit, increased your effective tax rate by approximately 4%. Please tell us whether the year-over-year difference relates to the one-time tax benefit referred to above or is attributable to other factors, including their nature. Finally, we believe you should disclose the causes of such one-time items.

Item 8. Financial Statements and Supplementary Data, page 65

Note 2. Summary of Significant Accounting Policies, page 72

2. We note from your list of subsidiaries in Exhibit 21 that you have investments that may be accounted for using the equity method of accounting. Please tell us the significance of these investments and your evaluation of the applicability of the disclosures outlined in ASC 323-10-50-3.

Note 7. Stock and Other Compensation Plans, page 97

Restricted Stock Plans, page 97

3. Please disclose the dividend participation feature of non-vested restricted stock awards. Also disclose the requisite service period(s) and the performance conditions of restricted stock awards. Please refer to ASC 718-10-50-2a.

Note 8. Retirement and Post-Retirement Employee Benefit Plans, page 100

4. Please disclose how you calculate the market related value of plan assets as that term is defined in ASC 715-30-20. Since there is an alternative to how you can calculate this item, and it has a direct effect on pension expense, we believe you

should disclose how you determine this amount in accordance with ASC 235-10-50-3.

Rule 13a-14(a)/15(d)-14(a) Certifications

5. Please revise the wording of your certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 to precisely match the language set forth in Item 601(b)(31) of Regulation S-K. In this regard, your certifications do not track the text of Item 601(b)(31) of Regulation S-K in paragraph 4(b) or in the introductory language in paragraph 5. We note similar alterations to the certifications filed with the Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2010 and June 30, 2010.

* * * * *

Please respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of your disclosure to expedite our review. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in these filings to be certain that the filings include all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Fred E. Meisenheimer
Atmos Energy Corporation
June 1, 2010
Page 4

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

You may contact Robyn Manuel, Staff Accountant, at (202) 551-3823 or William Thompson, Branch Chief, at (202) 551-3344 if you have questions regarding comments on the financial statements and related matters. Please contact Catherine Brown, Staff Attorney, at (202) 551-3513 or me at (202) 551-3720 with any other questions you may have.

Sincerely,

H. Christopher Owings
Assistant Director