

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

September 16, 2010

Thomas H. Ehrlich Vice President and Chief Financial Officer Uranium Resources, Inc. 405 State Highway 121 Bypass Building A, Suite 110 Lewisville, Texas 75067

Re: Uranium Resources, Inc.

Form 10-K for Fiscal Year Ended December 31, 2009

Filed March 16, 2010

Schedule 14A Definitive Proxy Statement

Filed April 27, 2010 File No. 1-33404

Dear Mr. Ehrlich:

We have reviewed your response letter dated August 16, 2010 and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

General

- 1. We note your response to comment 1 of our letter dated August 4, 2010 and Exhibit 5.1 to Form 8-K filed August 5, 2010. While we will accept opinions of counsel on a jurisdiction in which counsel is not admitted to practice, counsel may not imply that it is not qualified to opine on the law of the relevant jurisdiction. In this regard, please have counsel revise its legality opinion to remove the statement in that it is "not admitted to practice in the State of Delaware."
- 2. In addition, the legality opinion expresses its opinion as to "the Delaware General Corporation Law." Please have counsel confirm to us or revise the legality opinion to state that the opinion's reference and limitation to the Delaware General Corporation Law

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includes the statutory provisions and also all applicable provisions of the Delaware Constitution and the reported judicial cases interpreting those laws currently in effect.

Closing Comments

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

Please contact Tracey L. McNeil at (202) 551-3392, Alexandra M. Ledbetter at (202) 551-3317, or me at (202) 551-3740 with any other questions.

Sincerely,

H. Roger Schwall Assistant Director