COMPENSATION COMMITTEE CHARTER OF TEXAS RARE EARTH RESOURCES CORP.

(as adopted by the Compensation Committee and Board of Directors on September 16, 2011)

I. Committee Membership

Except to the extent that may be permitted under Section 805 of the NYSE Amex Company Guide, each member of the compensation committee (the "Committee") of the board of directors (the "Board") of Texas Rare Earth Resources Corp. (the "Company") must satisfy the criteria of independence as required by the NYSE Amex and other applicable securities laws regulations. In addition, each member of the Committee must also qualify as "non-employee" director under Rule 16b-3 of the Securities Exchange Act of 1934, as amended. The Committee shall be composed of no less than three non-employee members of the Board. Members of the Committee shall be appointed by the Board after approval by the Corporate Governance and Nominating Committee. Members shall serve at the pleasure of the Board and for such term or terms as the Board may determine.

II. Purpose

The Committee shall discharge the responsibilities of the Board for setting and administering the policies and programs that govern both annual compensation and stock option programs for the executive officers and directors of the Company. The Committee shall also be responsible for providing oversight with regard to the Company's various programs of compensation, including all incentive plans, stock option plans and stock purchase plans.

III. Responsibilities

The Committee shall have the responsibility and duty to:

1. Review and approve corporate goals and objectives relevant to the compensation of the Company's Chief Executive Officer (the "CEO"), evaluate the CEO's performance in light of those goals and objectives, and either as a committee or together with the other independent directors, determine, or recommend to the Board for determination, the CEO's compensation level based on this evaluation. In determining or recommending the long-term incentive component of CEO compensation, the Committee shall consider, among other factors, the Company's performance and relative shareholder return, the value of similar incentive awards to CEOs at comparable companies, and the awards given to the CEO in past years. The CEO may not be present during any voting or deliberations of the Committee regarding the CEO's compensation;

2. Either as a committee or together with the other independent directors, determine, or recommend to the Board for determination, the compensation of all other executive officers of the Company;

3. Review non-binding shareholder advisory votes on compensation and make appropriate recommendations to the Board;

4. Make recommendations to the Board with respect to the Company's incentive compensation plans and equity-based plans, oversee the activities of the individuals and committees

responsible for administering these plans, and discharge any responsibilities imposed on the Committee by any of these plans;

5. Approve issuances under, or any material amendment of, any tax qualified, nondiscriminatory employee benefit plan or parallel nonqualified plan pursuant to which a director, officer, employee or consultant will acquire stock or options;

6. Approve issuances under, or any material amendment of, any stock option or other similar plan pursuant to which a person not previously an employee or director of the Company, as an inducement material to the individual's entering into employment with the Company, will acquire stock or options;

7. To review and approve any severance or similar termination payments proposed to be made to any current or former executive officer of the Company;

8. Prepare reports of the Committee, including an annual report of the Committee for inclusion in the Company's annual proxy statement in accordance with applicable U.S. Securities and Exchange Commission ("SEC") rules and regulations;

9. Review and assess the adequacy of and update, if necessary, this Committee charter annually;

10. Report to the Board on a regular basis, and not less than once per year;

11. Request and review such reports from management as it may require in carrying out its assigned responsibilities and advise the full Board as to the Committee's oversight functions;

12. Review and recommend to the Board on an annual basis compensation to be paid to the Chairman of the Board, directors of the Board, the directors serving on the various committees of the Board, and the directors serving as chairs of the various committees of the Board; and

13. Perform any other duties or responsibilities expressly delegated to the Committee by the Board from time to time relating to the Company's compensation programs, or such additional activities within the scope of the Committee's primary functions as it may deem appropriate.

III. Committee Structure and Operations

The Committee shall designate one member of the Committee as its chairperson. In the event of a tie vote on any issue, the chairperson's vote shall decide the issue. The Committee shall meet at least twice a year, and perhaps more frequently, in conjunction with regularly scheduled meetings of the Board at regularly scheduled times and places determined by the Committee chairperson, with further meetings to occur, or actions to be taken, by unanimous written consent, when deemed necessary or desirable by the Committee or its chairperson. Members of the Committee may participate in a meeting of the Committee by means of conference call or similar communications equipment by means of which all persons participating in the meeting can hear each other.

IV. Performance Evaluation

The Committee shall prepare and review with the Board an annual performance evaluation of the Committee, which evaluation shall compare the performance of the Committee with the requirements of this charter. The performance evaluation shall also recommend to the Board any improvements to the

Committee's charter deemed necessary or desirable by the Committee. The performance evaluation by the Committee shall be conducted in such manner as the Committee deems appropriate. The report to the Board may take the form of an oral report by the chairperson of the Committee or any other member of the Committee designated by the Committee to make this report.

V. Resources and Authority of the Committee

The Committee shall have the resources and authority appropriate to discharge its duties and responsibilities, including the authority to select, retain, terminate, and approve the fees and other retention terms of special counsel or other experts or consultants, as it deems appropriate.

VI. Public Disclosure and Website Publication

This charter shall be included on the Company's website. The Company's annual report to stockholders will state that this charter is available on the Company's website and will be available upon request to the Company's Corporate Secretary.