

XRF SCIENTIFIC LIMITED
(ACN 107 908 314)

EMPLOYEE SHARE OPTION PLAN

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This Employee Share Option Plan is made on ____ day of ____ 2005

1. Name of Plan

This document sets out the Rules of the XRF Scientific Limited Employee Share Option Plan.

2. Objectives

2.1 The objectives of the Plan are to:

- 2.1.1** establish a method by which Eligible Persons can participate in the future growth and profitability of the Company;
 - 2.1.2** to provide an incentive and reward for Eligible Persons for their contributions to the Company; and
 - 2.1.3** attract and retain a high standard of managerial and technical personnel for the benefit of the Company.
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3. Definitions

3.1 In these Rules, unless the context otherwise requires:

- 3.1.1** "**Application**" means an application in the form set out in the First Annexure or in such other form as the Directors may from time to time prescribe, accepting an invitation from the Directors to apply for Options in the Plan, made pursuant to these Rules;
- 3.1.2** "**Application Date**" means the date on which an Application is lodged with the Company by an Eligible Person or his nominee in accordance with the requirements of these Rules;
- 3.1.3** "**ASX**" means the Australian Stock Exchange Limited (ACN 008 624 691) and its subsidiaries;
- 3.1.4** "**Board**" means the Directors, from time to time, acting as a board;
- 3.1.5** "**Class Order**" means CO 03/184 or any subsequent class order made or approved by ASIC in substitution of CO 03/184;
- 3.1.6** "**Company**" means XRF Scientific Limited (ACN 107 908 314);
- 3.1.7** "**Controlled Entity**" means any Related Body Corporate of or other entity controlled by the Company;

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- 3.1.8 "Directors"** means the directors of the Company from time to time;
- 3.1.9 "Eligible Person"** means a Director, Officer or Employee who is from time to time engaged in full or part-time work for the Company or a Controlled Entity;
- 3.1.10 "Employee"** means any employee, contractor or consultant engaged by the Company;
- 3.1.11 "Exercise Price"** means the issue price per Share payable in cash upon exercising an Option being such price determined by the Directors in their absolute discretion and set out in the Offer provided that the exercise price is not less than the average Market Price on ASX on the five trading days prior to the day the Directors resolve to grant the Option(s);
- 3.1.12 "Expiry Date"** means 5.00pm Western Standard Time in Australia on the day which is five years after the date of issue of an Option;
- 3.1.13 "First Annexure"** means the first annexure attached to and forming part of this document;
- 3.1.14 "Listing Rules"** means the Listing Rules of the ASX as amended from time to time;
- 3.1.15 "Market Price"** means the market price quoted for buyers of Shares at the close of trading on the day immediately preceding the date of the Offer by the Directors as published by the ASX in the National Trading Statistics;
- 3.1.16 "Offer"** means the offer of Options made in accordance with Rule 6;
- 3.1.17 "Officer"** has the same meaning as given to that term in the Corporations Act 2001;
- 3.1.18 "Option"** means an option to subscribe for a Share issued in accordance with these Rules;
- 3.1.19 "Option Exercise Notice"** means a notice for the exercise of Options in accordance with the Rules in the form set out in the Second Annexure to these Rules or in such other form as the Directors from time to time prescribe;
- 3.1.20 "Plan"** means the XRF Scientific Employee Share Option Plan established in accordance with these Rules;
- 3.1.21 "Record Date"** means 5.00 pm Western Standard Time in Australia (in the case of a proper SCH transfer, a later time permitted by the SCH Business rules) on the date the Company specifies for lodging transfers for the purpose of identifying the persons who are entitled to dividends.

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- 3.1.22 "Related Body Corporate"** has the same meaning as given to that term in the Corporations Act 2001;
- 3.1.23 "Rules"** means the rules of the XRF Scientific Limited Employee Share Option Plan as set out in this document as amended from time to time;
- 3.1.24 "Second Annexure"** means the second annexure attached to and forming part of this document;
- 3.1.25 "Share"** means a fully paid ordinary share in the Company; and
- 3.1.26 "Terms and Conditions of Issue"** means the terms and conditions of issue of Options specified in this document or in an Offer.

Unless the context otherwise requires any word or phrase used in these Rules which is not defined but which is defined in the Listing Rules has the same effect as that contained in the Listing Rules.

- 3.2** Words importing any gender include all genders.
- 3.3** The singular includes the plural and vice versa.
- 3.4** Headings are included for convenience only and do not affect the construction of these Rules.

4. The Plan

- 4.1** There will be set aside for the purposes of the Plan such number of Ordinary Shares as the Directors may from time to time determine.
- 4.2** The Directors will not offer or issue Options to any Eligible Person in accordance with the Plan if the total number of Shares the subject of Options, when aggregated with:
- 4.2.1** the number of Shares in the same class which would be issued were each outstanding offer or invitation or option to acquire unissued Shares in the Company, being an offer or invitation made or Option acquired pursuant to the Plan or any other employee or executive share plan extended only to Eligible Persons, to be accepted or exercised (as the case may be); and
- 4.2.2** the number of Shares in the same class issued during the previous five (5) years pursuant to the Plan or any other employee or executive share plan extended only to Eligible Persons,
- would exceed five (5) per cent of the total number of issued Shares in the Company as at the time of the proposed offer or issue.
- 4.3** The Directors will administer the Plan awarding Options to acquire Shares in the Company to Eligible Persons. The selection of persons to

whom the Shares will be offered under the Plan, the number of Shares which may be offered to those persons, and any performance criteria that may apply before the Options may be exercised will be determined wholly by the Directors in their absolute discretion and in compliance with the Listing Rules.

- 4.4 Options may not be offered to a Director or his or her associates except where approval is given by the Shareholders of the Company in general meeting in accordance with the requirements of the Listing Rules.
- 4.5 The initial duration of the Plan will be for three (3) years. No allotment of Shares will be made pursuant to the Plan after that time unless the operation of the Plan is extended for such period(s) as the Company determines in general meeting as long as each and any extension of the Plan must be for a period not greater than three (3) years.
- 4.6 Participation in the Plan is subject to the Rules.

5. Eligibility to Participate

- 5.1 Officers and Employees both full and part-time are eligible to participate in the Plan.
- 5.2 Eligibility to participate in the Plan will not involve any right to participate in the Plan, and participation will be solely determined by the Board.

6. Offers of Options

- 6.1 The Directors may from time to time make Offers in writing to Eligible Persons inviting them to take up Options under the Plan.
- 6.2 Each Offer made by the Directors must:
 - 6.2.1 specify the number of options and the terms and conditions of the issue of the Options the subject of the Offer; and
 - 6.2.2 have attached an Application and copy of these Rules.

7. Terms and Conditions of Issue

- 7.1 All Options issued under the Plan will be issued on the following terms and conditions:
 - 7.1.1 each Option will be issued free of consideration;
 - 7.1.2 each Option will entitle the holder to subscribe for one Share at the Exercise Price;
 - 7.1.3 each Option expires on its Expiry Date;

- 7.1.4** subject to Rule 9 and Rule 17, the Options can be exercised in whole or part at any time up to and including the Expiry Date by lodging an Option Exercise Notice accompanied by the payment of the Exercise Price;
- 7.1.5** subject to the Listing Rules, the Options cannot be transferred or assigned by the holder except that the holder may at any time transfer all or any of his Options to his spouse or to a company the majority of the issued Shares in which are beneficially owned by him or to any trust that the holder is a beneficiary;
- 7.1.6** there are no participating rights or entitlements inherent in the Options and Option holders will not be entitled to participate in any new issue or bonus issue of Shares which may be offered to members of the Company from time to time prior to the Expiry Date;
- 7.1.7** in the event of any reorganisation (including consolidation, subdivision, reduction or cancellation) of the issued capital of the Company, the Options are to be reorganised in a manner required by the Listing Rules on a reorganisation of capital;
- 7.1.8** In the case of any pro rata entitlements issue (other than a bonus issue) the Exercise Price of the Option may be reduced according to the following formula:

$$NEP = O - \frac{E[P - (S + D)]}{N + 1}$$

NEP = the new exercise price of the Option.

O = the old exercise price of the Option.

E = the number of underlying securities into which one Option is exercisable.

P = the average market price per share (weighted by reference to volume) of the underlying securities during the 5 trading days ending on the day before the ex rights date or ex entitlement date.

S = the subscription price for a security under the pro rata issue.

D = the dividend due but not yet paid on the existing underlying securities (except those to be issued under the pro rata issue).

N = the number of securities with rights or entitlements that must be held to receive a right to one new security.

In the case of a bonus issue the number of Shares over which

the Option is exercisable may be increased by the number of Shares which the option holder would have received if the Option had been exercised before the record date for the bonus issue. If at the time of adjustment the Company is admitted to the official list of ASX, the Company will notify the ASX of the adjustments in accordance with the Listing Rules.

- 7.1.9** Shares allotted and issued pursuant to the exercise of Options will be allotted and issued not more than ten (10) business days after receipt of both a properly executed Option Exercise Notice and the relevant subscription monies;
- 7.1.10** application will not be made to the ASX for Official Quotation of the Options;
- 7.1.11** all Shares issued upon exercise of any Option will rank pari passu in all respects with the Company's then issued Shares. The Company will apply for Official Quotation with the ASX within 10 business days after the date of issue of all Shares issued upon exercise of any Option;
- 7.1.12** no Options will be issued under the Plan until an Application approved by the Directors has been received by the Company in accordance with Condition 12; and
- 7.1.13** the Company will allot the Options and deliver a certificate or certificates for the Options to the Eligible Person within ten (10) business days of the Application Date.

8. Identity of Allottees

Options may be issued to the Eligible Persons or their nominees as approved by the Directors from time to time.

9. Conditions of Exercise of Options

Save for in the event of an offer being made for all or part of the Shares in the Company within the meaning of Chapter 6 of the Corporations Act 2001 or unless otherwise agreed by the Directors, an Eligible Person may not exercise any Option during the initial period of 1 year of the term of any Option calculated from and including each date of issue.

10. Cessation of Employment

- 10.1** Any Options issued pursuant to the Plan will be allotted on the condition that the whole of the Options issued to an Eligible Person automatically lapse and are forfeited, (except that the Eligible Person may retain any Options which he is already entitled to exercise pursuant to the provisions of Rule 9) unless the Board determines otherwise within 30

days, if that Eligible Person:

- 10.1.1** voluntarily resigns from employment with the Company otherwise than to take up employment with a Related Body Corporate of the Company;
- 10.1.2** is dismissed from employment with the Company for any one or more of the following reasons:
 - (a) wilful misconduct bringing disrepute on the Company or a Related Body Corporate;
 - (b) repeated disobedience, after prior written warning;
 - (c) incompetence in the performance of any duties for which the Eligible Person was employed, after prior written warning;
 - (d) fraud or any other dishonesty in respect of the property or affairs of the Company or a Related Body Corporate; or
 - (e) any other reason, based on which the Directors believe is fair and reasonable to warrant the lapsing and forfeiture of the Options.
- 10.2** Options issued to an Eligible Person will not lapse and be forfeited where an Eligible Person ceases employment with the Company in the following circumstances:
 - 10.2.1** death or total permanent disability (as that term is recognised by Statute);
 - 10.2.2** retirement;
 - 10.2.3** redundancy; and
 - 10.2.4** any other reason, based on which the Directors believe is fair and reasonable to warrant the Eligible Person maintaining his/her right to exercise the Options.
- 10.3** Should an Eligible Person, in the opinion of the Directors, satisfy the requirements of Rule 10.2 the Eligible Person will have a period of one (1) year to exercise the Option from the date the Company receives notice of the specified event and acknowledges in writing that such event satisfies the requirements of Rule 10.2. For the purposes of this sub-clause the time constraint imposed by Rule 10.1 is to be ignored.

11. Dividends and Voting Rights

- 11.1** The Company will notify all participants who hold an Option issued pursuant to the Plan of any dividend declaration, at least 10 business days before the Record Date. Upon receipt of such notice and subject to Rules 7, 9 and 10, participants who hold an Option issued pursuant to

the Plan will be entitled to exercise their Option at any time before the Record Date in accordance with Rule 12.

- 11.2** Participants who are holding an Option issued pursuant to the Plan have no rights to vote at meetings of the Company until that Option is exercised.

12. Exercise of Options

- 12.1** An Option is only exercisable by completing the Option Exercise Notice in the form provided on the reverse of the Option Certificate and delivering the same to the Company. An Option Exercise Notice must specify the number of Options being exercised and must be delivered to the Company together with:

12.1.1 payment of the Exercise Price for those Options, and

12.1.2 the Option Certificate covering the Options being exercised.

- 12.2** The giving of an Option Exercise Notice for part only of the number of Options held by any participant from time to time does not prevent the participant at any time thereafter subject to Rule 10, during the term of those Options from exercising all or part of the balance of such Options in whole or in part.

- 12.3** If a participant exercises less than the total number of Options referred to in the Option Certificate then that participant:

12.3.1 must surrender the Option Certificate to the Company; and

12.3.2 the Company will cancel that Option Certificate and re-issue an Option Certificate to the participant for the unexercised balance of the Options.

13. Taxation

Neither the Company nor its directors, officers, employees, representatives or agents take any responsibility or assume any liability for the taxation liabilities of Eligible Persons.

14. Listing Rules

The terms and conditions of the Plan must at all times comply with the Listing Rules. If there is any inconsistency between the terms and conditions of the Plan and the Listing Rules then the Listing Rules will prevail.

15. Administration of the Plan

15.1 The Plan will be administered by the Directors who have the power to:

- 15.1.1** determine the procedures from time to time for the administration of the Plan subject to the Rules;
- 15.1.2** subject to Rules 14 and 16, amend or modify the Rules;
- 15.1.3** resolve conclusively all questions of fact or interpretation arising in connection with the interpretation or application of the Rules; and
- 15.1.4** delegate to any one or more persons for such period and on such conditions as or the Directors may determine the exercise of any of the Directors powers or discretions under the Plan.

16. Amendments to the Plan

The Rules may not be altered without the prior approval both of the shareholders of the Company in a general meeting and the ASX if required.

17. Restriction on Exercise of Options

No Option given under this Plan may be exercised unless the underlying Shares pertaining to that Option have been listed on the ASX or an approved foreign exchange (as defined in the Class Order) for a period of 12 months from the listing date on that exchange.

18. Termination of the Plan

- 18.1** The Plan may be terminated at any time by resolution of the Directors and notification thereof to the ASX.
- 18.2** Participants who hold an Option issued pursuant to the Plan, before termination of the Plan under Rule 18.1, will continue to be entitled to exercise such Option in accordance with the Rules and the Company will be bound to comply with the Rules in respect of such Options.

19. Governing Law

The Plan, the Rules and the operation of the Plan is governed by the laws of the State of Western Australia.

Annexure 1

XRF SCIENTIFIC LIMITED ACN (107 908 314)

XRF Scientific Limited
Employee Share Option Plan

Application for Options

I _____ of

hereby apply for _____ Options to subscribe for an equal number of Shares in the capital of the Company at an exercise price of \$ _____ per Share and I agree that upon issue of those Options I will hold those Options and deal with them only in accordance with the terms and conditions of the said Employee Share Option Plan of XRF Scientific Limited (a copy which is attached hereto), subject to and accordance with the Constitution of the Company.

Dated this _____ day of _____ 2005

Signed: _____

Name: _____

Notes

- (1) The Exercise Price is determined by the Directors at the time of making the Offer in accordance with the Rules of the Plan.
- (2) Options are issued free.

Annexure 2**XRF SCIENTIFIC LIMITED
ACN (107 908 314)**

XRF Scientific Limited
Employee Share Option Plan

Option Exercise Form

To: The Directors

XRF Scientific Limited ('the Company')

I/We (Mr Mrs Ms) _____

of _____

_____ hereby exercise my/our Options to subscribe for –

_____ fully paid (in words) _____ (in figures)

Ordinary Shares in the capital of the Company at an Exercise Price of \$ _____ per

fully paid Ordinary Share and enclose payment in full of

\$ _____.

I/We request you allot to me/us an I/we agree to accept the Shares subject to the Constitution of the Company. If this application is signed by an attorney, the attorney hereby declares that he has no notice of revocation of the power under authority of which this application is signed. (Companies should sign under seal).

Signature of Applicant

Dated this _____ day of _____ 200