
GENERAL NOTICES ALGEMENE KENNISGEWINGS

NOTICE 993 OF 2008

Safety in Mines Research Advisory Committee (SIMRAC) on behalf of the Mine Health and Safety Council (the Council)

Invitation to submit project proposals

SIMRAC, a permanent committee of the Mine Health and Safety Council, was established in terms of the Mine Health and Safety Act (29/1996) to conduct research and surveys regarding, and for the promotion of, health and safety in the South African mining industry. Suitably qualified agencies and/or persons are invited to submit proposals in response to the project specifications in this Notice. In soliciting research projects for the 2008/2009 research programme, the Council has the following goals:

- to indicate the current research needs for research to commence in the 2008/2009 cycle;
- to invite research proposals in response to these defined priority areas of research; and
- to invite applications for postgraduate funding¹² for research which will promote health and safety within the South African mining industry.

A consultative process has resulted in the Council formulating a co-ordinated, long-term health and safety research programme and identifying priority areas for research to commence in the 2008/2009 cycle. Researchers and agencies are invited to submit research proposals for the research projects indicated. Proposed research must be well designed with a detailed methods section, be ethical *and* must have the potential to add to existing knowledge, practice or technology, involve the end users and implement/transfer outputs. Research teams must have the specified skills.

Submission of Proposals

1. Proposals must be submitted in accordance with the prescribed format. Contact Cheryl Jones at telephone 011 358 9182, fax 011 403 1821, e-mail cjones@mhsc.org.za or visit the MHSC website www.mhsc.org.za to download the submission template. **PLEASE NOTE THAT THE NEW FORMAT NEEDS TO BE USED.**
2. Queries regarding the aims and objectives of the thrusts listed in this notice can contact the following persons:
Engineering and Machinery: Dragan Amidzic at damidzic@mhsc.org.za (011 358 9109)
Rock Engineering: Dragan Amidzic at damidzic@mhsc.org.za (011 358 9109)
Occupational Health: Audrey Banyini at abanyini@mhsc.org.za (011 358 9183)
SIMRAC Chairperson: Thabo Dube at Thabo.Dube@dme.org.za (012 317 8000)
Proposal Submission: Cheryl Jones at cjones@mhsc.org.za (011 358 9190)
3. Proposers are requested to take note of past work in the different thrust areas. (Details are available on website www.mhsc.org.za).

¹² Guidelines for the Council postgraduate research and Ethics Guidelines are obtainable from nwoods@mhsc.org.za

4. The closing time and date for the receipt of the proposals is **12:00 on Friday 19 September 2008**. Late entries will not be considered.
5. Two copies of each proposal, in a sealed envelope, in a form suitable for photocopying **plus** a disk or CD with the proposal in MS Word, should be deposited in the repository labelled "*Proposals*" at the Council's offices².
6. The Council may at its sole discretion, decide to recommend the acceptance, rejection or amendment of any proposal and to commission the team to develop the proposal on the basis of which the contract is awarded. The Council shall not furnish any reasons for its decisions regarding proposals.
7. Every proposal accepted by the Council would be subject to a set of Terms and Conditions, which on acceptance of the final detailed proposal will form part of the contract applicable to the project. All prospective proposers should peruse a set of the standard terms and conditions prior to submitting a proposal. A copy of the draft standard terms and conditions is available on the SIMRAC website www.mhsc.org.za.
8. **Charge-out rates have to be in accordance with the rates specified by the Science Council, ACSA and SACNAPS**
9. **Preference will be given to proposals that composes of a project team with HDI's.**
10. In compiling proposals, prospective proposers should provide details of methods, identifiable outputs and estimated costs as indicated.
11. The Council will endeavour to solicit the services of South African organisations to undertake projects, but will consider proposals from overseas-based organisations if expertise, cost considerations and local capacity building components compare favourably.
12. The Council requires full disclosure regarding all subcontracts included in the proposal.
13. The proposer and any of its affiliates shall be disqualified from providing other goods, works, or services under the project if, in the Council's judgment, such activities constitute a conflict of interest with the services provided under the assignment/project.
14. Where an output includes a device, mechanism, procedure, or system capable of being applied in the mining environment, a prospective proposer shall include in the proposal an output which suggests how the outputs in question might best be applied in practice. In drafting proposals, all prospective proposers should bear in mind the potential for technology transfer and phasing the project as indicated.
15. The period for which the proposals should be held valid is 150 days.
16. During this period the proposal must undertake to maintain, without change, the proposed key staff, and must hold to both the rates and total price proposed; in case of extension of the proposal validity period, it is the right of the proposer not to maintain their proposal
17. The anticipated commencement date of the projects is 1 April 2008.

², 2nd Floor, Braamfontein Centre, 23 Jorissen Street, Cnr. Bertha Street, Braamfontein

18. Each proposer have to submit a TAX Clearance Certificate with the proposal
19. A BEE Questionnaire has to be completed by each proposer. The questionnaire can be obtained from Madumetsa Thobakgale at mthobakgale@mhsc.org.za
20. Each successful proposer may, during the contract period or shortly after its completion, be required to provide:
- ☐ A competent spokesperson with appropriate materials to make not more than two separate presentations, on an annual basis for the duration of the project, and
 - ☐ A technical paper on the project for publication and/or a poster presentation, without additional remuneration or reimbursement of costs.

These activities must be detailed and costed within the project.

14. Where relevant, proposers may obtain copies of earlier project reports and other information from the website address or from contacts listed (See paragraph 1 and 2).
15. Proposers are advised that all Council projects should be submitted to language editing and may be subjected to technical and financial audits. Funding for editing and audits should be included in the proposal budget.
16. Proposers should substantiate and cost separately, all proposed travel outside the borders of South Africa in connection with the project, and provide details of all expenses such as travelling and subsistence.
17. All proposed project costs must be expressed in South African Rands and the total price must be VAT inclusive. Fluctuations in the exchange rate and purchase of forward cover should be considered when costing the proposal.
18. The Council will take all reasonable steps to ensure that confidentiality of proposals is maintained during the adjudication process. If a proposal is not accepted within the programme, the Council may invite additional proposals on the topic.
19. No unsolicited proposals will be included in the programme for 2008/9.
20. The following three-stage evaluation procedure will be followed:
- a. A technical evaluation of the proposal that will consist of the following items and weight allocations:

1.	Capability and capacity of the project team	
1.1	Relevant formal qualifications	5
1.2	Knowledge of relevant OHS issues in mining industry	5
1.3	Experience in conducting research in this area	5
1.4	Balance of team composition and competencies	5
1.5	Resources and facilities available	5
1.6	Track record: quality, on-time and within budget	5
2.	Research design and methods	

2.1	Appropriate study design and proptocol	5
2.2	Representivity, sample, strategy and size	5
2.3	Technical methods (tests etc)	5
2.4	Intended analysis of results	5
2.5	Ethics, risks and limitations	5
3.	Research outputs	
3.1	Appropriate format	5
3.2	Usefulness	5
3.3	Potential impact	5
3.4	Technology transfer	5
	Total Score – Technical	75

- b. A price evaluation that will be calculated as follows:

$$Ps = (Pmin/Pt) * Ap$$

Where

Ps = % scored for price by proposal being evaluated

Pmin = price of lowest bidder

Pt = price of proposal being evaluated

Ap = % allocated for price aspect of proposal (15%)

- c. A preferential procurement purposes using the following criteria and weightings:

- The proposals will each be given a score out of 100 that will be converted to a score out of 10 for the SIMRAC evaluation process
- Commercial Entities will be evaluated against the following criteria and weightings:
 - Ownership - 20%
 - Management - 10%
 - Employment Equity & Skills development – 30%
 - Preferential Procurement – 30%
 - SMME Status – 10%
- National Institutions and Public Entities will be evaluated against the following criteria and weightings:
 - Ownership - 0%
 - Management - 30%
 - Employment Equity & Skills development – 40%
 - Preferential Procurement – 30%

The **objectives** of the Council in commissioning health and safety research, for both general and commodity-based projects, are to:

- Obtain and evaluate information to establish evidence-based risk assessment, standard setting and health and safety performance measurement;
- Develop techniques or guidelines to prevent, reduce, control or eliminate risks;

- Develop and pilot innovative ideas and procedures, where appropriate, to eliminate, reduce or control risk;
- Obtain information on the extent of work-related ill health;
- Identify, develop and improve sampling and measurement techniques to detect environmental hazards and assess personal exposure;
- Understand the aetiology and identify and evaluate best-practice screening, diagnostic and treatment interventions to reduce the impact of occupational disease;
- Evaluate the effectiveness of control interventions;
- Understand risk perception, attitudes and behaviour related to health and safety and promote best practices in hazard recognition and procedural conformance;
- Empower its statutory committees to formulate policy, expedite research aimed at improving the health and safety in the South African mining industry; and
- Collaborate with national and international initiatives and research to promote health and safety in the mining industry.

The **criteria** by which proposals will be evaluated include:

- **Added value and impact** – the Council supports research which can contribute significantly to the improvement in the health and safety of South African miners;
- **Value for money** – the Council supports cost-effective research;
- **Innovation** – the Council welcomes new approaches or new areas of focus for research leading to technologies or best practices to improve health and safety;
- **Excellence** – the Council demands excellence, particularly in the methods employed to conduct research, be it quantitative or qualitative, and hence will consider the track record of the proposer/s for expertise and delivery (quality, time and to budget);
- **Use and development of research skills** – the Council requires research teams to possess the skills relevant to the success of the project and also favours projects which assist in developing research capacity, particularly in previously disadvantaged groups;
- **Collaboration** – the Council places a high priority on collaboration between researchers and the “teams of excellence” approach. Thus, the means of soliciting research proposals is intended to stimulate collaboration between centres of excellence and individual experts in order to optimise the use of the Council funding and the research outcomes.
- **Development of key indicators** – the Council recognises the challenge in assessing performance and improvement in health, as opposed to safety, in the mining industry. There is a lack of suitable occupational health (OH) indicators and baseline data. Thus innovative and robust research to develop relevant OH indicators and baseline values will be favourably considered.

The Council’s research and implementation programme consists of occupational health and safety, addresses occupational medicine and hygiene, rock engineering, engineering and machinery, behavioural issues and technology transfer processes.

Each proposal must:

- Address only the research topic advertised and this must be specified;
- Be in the format indicated and the template specified using Word format; and
- Be phased as indicated in the project scope.

Thrust 1

Title SIM 08 01 XX : An Investigation into elements of key areas of behavioural issues on occupational health and safety in the South African mining industry.

Phase 1 scope

- Identify elements of Occupational Health & Safety Behaviour (OHS), their meaning and their impact within different context.
- Identify systems of Occupational Health & Safety Behaviour (OHS) locally and internationally
- Explore and compare advantages and disadvantages of each system (e.g. what are the elements that improves leadership or culture behaviours conducive to Occupational Health & Safety Behaviour (OHS) including implementation.)
- Identify the gaps unique to the mining industry, and how these relate to the SA mining industry
- Identify, define and develop the Research agenda and programme on OHS behaviours for SA mining industry
- Produce scopes for the programme and
- Recommend a list of priority research topics and scopes for possible inclusion in the next new programme commencing 2010/11 cycle. The list should consider projects with maximum impact on human factors on their conclusion

Phase 2:

- Implementation of identified research programme from phase 1
- Develop behaviour changed methodology suitable for the SA mining industry environment

Motivation

The following were considered as motivation by HTAC for the scope and the outputs outlined. The South African mining industry is unique in its operations and the diversity of culture of employees and employers. Evaluative research of Behavioural Based Systems (BBS) and the majority of previous research done on BBS research concentrated on work environments that are conducive to workers systematically monitoring one another's safety related actions (peer review). The following factors were also considered as further key consideration in motivating this research:

- 1) Analysis of the SAMRASS statistics of 2007 shows that unsafe acts/human practice is a major cause of accidents.
- 2) Leading Indicators report (SIM 06 09 04A) concluded that over 90% of accidents are related to human practices.
- 3) The majority of research at MHSC has been focused on the technical aspects, which have now been exhausted and focus is now required to address "soft issues" related to working environment. One of these key areas identified is OHS Human behaviour
- 4) At the MHSC mini-indaba and the 5th MHSC biennial summit in 2007 a need with regards to human factors through a research programme under thrust 1 was emphasised.

Statement:

To date MHSC has focused on technical aspects of research; however this Project addresses the human OHS behaviour.

Primary Outputs**Phase 1**

Primary output document with the following chapters which are holistic:

- Identified elements of OHSC behaviour
- Identified systems local and internationally
- Compared local and international literature review and systems
- Identified gaps relevant to the South African mining industry
- Recommend an HTAC research programme
- List of research topics to be included in the HTAC research programme
- Scope for identified research topics

Phase 2

1. Implementation of identified research programme from phase 1

2. Develop behaviour changed methodology suitable for the SA mining industry environment

Scope

- 1) International and local review of Literature and systems related to OHS in the mining industry.
 - Local documentation that require review are the leading indicator report, research from MHSC, scopes and the needs analysis workshops, individual mines and tertiary institutions
 - Local OHS behavioural systems in use
- 2) International Research
 - review international research in regard to OHS behavioural systems
 - review OHS behavioural systems done by international institutions such as the ILO, WHO, other countries and tertiary institutions
- 3) Literature review into behavioural and Culture Issues in the classification of Mining Accidents locally and internationally, taking into consideration USA and Australian practices
- 4) Define how the international systems compares with the local system with regard to OHS
 - a. Identify the gaps unique to the SA industry on areas related to OHS BEHAVIOURAL issues-
 - b. Identify key research areas and scopes with possible feasible outputs with research agenda on OHS behavioural issues in SA industry

Duration

Phase 1: 12 months from the commencement date.

Typical recipients of the Report

- Mine Health and Safety Council, its committees and stakeholders
- Occupational health and safety practitioners and representatives, employers, management and workers

Requirements for technology transfer

- A word document as stipulated by the MHSC research site including a CD with hyperlinks for easy reference
- Research programme for HTAC

Special skills and facilities required by project team

- Academic setting and non academic settings required
- Human Behavioural Scientist and Specialist
- Sociologist
- Psychologist