



Expectra 2004 (Pty) Ltd

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Expectra Company Profile

Expectra 2004 (Pty) Ltd has managed to establish itself as one of the thought leaders in Safety and Risk Management Services. Expectra combines academic and practical competence, blended with the objectivity and impartiality expected from a highly professional service. Members of our consulting team have practical experience in industrial management and risk control roles. Our consultants have tertiary or other relevant qualifications enabling us to provide appropriate advice and solutions in a broad range of occupational risk management disciplines.

Expectra **Consulting and Auditing Services** include Occupational Health & Safety Assessment Series (OHSAS) 18001, ISO 14001 Environmental Management Systems, ISO 9001; 2000 Quality Management Systems, TS 16949, Fatal Risk Management (FRM), Legal Compliance Audits & Inspections on both the OHSACT & MHSa and Risk Based Safety Systems and Related Software

Training products and services cover all the industry sectors, and although it includes off the shelf products, due to popular client demand, customization of training courses, seminars and workshops has become one of our unique strengths. Expectra is committed to providing the highest standard of training in the fields of Occupational Health, Safety, Environmental and quality risk management.

Software specialists and associations ensure that where applicable, the required IT tools and products are supported by in-house software specialists, which also enables on-site customization. Current software products include Risk Assessments (Baseline and Issue based – Safety, Health and Environment), Route Cause Analysis, Incident Management, Action Manager, Integrated Management Systems Software and Contractor Management Kits. All these modules are marketed as the NET-Tools Brand.

Specialized products and services include certification services, business improvement and development, management of change, fatal risk management and behavior interventions. Areas such as feasibility studies and other mining specific disciplines such as ventilation and rock engineering are also offered through our associations and partnerships. Contractor management strategies through custom designed programs are also in high demand from Expectra.



OUR PRODUCTS AND SERVICES

Expectra OBM™ Workshops

Creating an Occupational Safety Risk Competent Organisation through the integration of the five elements:

- Organisational Culture
- Organisational Safety Risk Management
- Organisational Leadership
- Organisational Human Risk Management
- Organisational Communication and Change Management

Safety Development Programmes

- Safety Professionals Development Academy
- Executive Safety Leadership Development Programme
- Supervisor Safety Development Programme
- MQA Accredited SHE Rep Competency Programme
- SAMTECH (Safety Management Technical Training)
- SITE (Safety in Task Execution) Training
- Strategic Workshops

Strategic Consultancy

- Development of Safety Improvement Strategies
- Company/Site/Area Specific Safety Improvement Plans
- Achieving Zero Fatalities and Zero Harm
- Integrated Risk Management Solutions
- Integrated Organizational Behaviour and Culture Change
- Leadership Effectiveness Development and Improvement Strategies

Integrated Risk Management Software Solutions

- NetManager© - Real Time Management Information and Reports
- NetBase© - Baseline Risk Assessment Tool
- NetCon© - Manages Inspections, Audits and Testing
- NetHealth© - Risk Assessment and Management Tool for Health Risks
- NetVent© – Ensuring that Ventilation is maintained at Acceptable levels
- NetIncident© - Incident Capturing and Reporting
- NetJSA© - Job Safety Analysis Tool
- NetTask/Prohaz© - Task inventory, critical task analysis, procedural hazard and operability assessment
- NetIssue© - Issue based risk assessment and management tool for safety risks
- NetSkills© & NetTrain© - Manages the skills requirements and training needs of the company

Training Prospectus

- SHEQ Specific
- ISO Related
- Technical Training
- Soft Skills (Interpersonal)
- Organisational Skills
- Interactive Electronic Training

For our Full Training Prospectus, please visit: www.expectra-international.com



OUR SERVICE POLICY

To ensure the implementation and continual improvement of a best practice approaches within client organizations, with a professional presence as close as possible to the point of delivery.

Expectra 2004 (Pty) Ltd are committed to service quality and embrace quality concepts and systems as a major contributor to achieving these goals as an integral part of our service delivery.

Our focus is always upon our client and their total satisfaction. We recognize that our clients need:

- Leading practical risk management consulting services.
- Timely service delivery.
- Access to competent staff.
- Support that encourages self-sufficient risk management.

Within our markets we will be the pre-eminent suppliers of risk management services and products that are distinguished from those of our competitors by their innovation and quality. We will achieve our goals and fulfill the expectations of our client's needs by creating an operating environment based upon teamwork, co-operation and mutual respect between all parties involved.

Experience

Previous services include development, design, implementation and auditing of Mining Safety Management Systems locally and abroad. Clients include blue chip organizations such as:

- a) **BHP Billiton (worldwide)**
- b) **Exxaro**
- c) **Harmony Gold**
 - a. **Plants**
 - b. **Mines**
- d) **Anglo American (worldwide)**
 - a. **Coal**
 - b. **Platinum**
 - c. **Gold**
- e) **Sasol Mining**
 - a. **Coal**
- f) **Rio Tinto**
- g) **Kumba Resources**
 - a. **Coal**
 - b. **Iron Ore**
- h) **Canada**
- i) **Latin / South America**
 - a. **Grupo Hochschild (underground)**



- i. Ares, Peru – underground gold & silver mine
 - ii. Arcata, Peru – underground gold & silver mine
 - iii. Pallancata, Peru – underground gold & silver mine
 - iv. San Jose, Argentina - underground gold & silver mine
 - b. Glencore (underground)
 - i. Mina Yauliyacu – zinc & lead mine
 - ii. Mina Iscaycruz – zinc & lead mine
 - iii. Min Santander – zinc & lead mine
 - iv. Deposito de Concentrado – deposit of minerals in Port of Callao
 - c. Volcan (underground)
 - i. Yauli Unit (underground)
 - 1. San Cristobal – zinc & lead mine
 - 2. Andaychagua – zinc & lead mine
 - 3. Carahuacra – zinc & lead mine
 - 4. Martunel – concentrator plant
 - 5. Mina Ticlio – zinc & lead mine
 - ii. Paragsha – zinc & lead mine (Cerro de Pasco)
 - iii. Chungar, Mina Animon – zinc & lead mine
 - iv. Alpamarca Mine – zinc
 - v. Rio Pallanga Mine – zinc
 - vi. Rondoni Mine – zinc
 - vii. El Pilar Mine – zinc
 - d. Pan American Silver (underground)
 - i. Huaron, Peru – silver & zinc mine
 - ii. Morococha, Peru – silver & zinc mine
 - iii. Quiruvilca – silver & zinc mine
- j) Asia
- k) the Pacific Rim
 - a. Australia
 - b. Indonesia
 - c. Papa Nieu Guinea
 - d. China
 - e. Hong Kong

Due to our expert mining technical and safety knowledge, we are currently appointed by various mining houses to facilitate all fatal accident investigations and analysis.

Previously we have also been directly involved with the investigation team that analyzed 2 previous methane related explosions which resulted in multiple deaths and injuries abroad. (Russia)



Typical Safety and Risk Management Services Delivered to Clients to date:

Risk Assessments, Consultancy and Audits

Of particular importance is the rapid risk reduction strategy and Fatality Prevention Systems that Expectra has developed for specific use in the mining industry to prevent and eradicate fatalities and manage and prevent Catastrophic Risks.

The following is a list of the recent projects which we have completed in association with Core Risk.

Sasol Mining

Baseline Risk Assessment for the whole of Sasol Mining

Safety Professional's Evaluation

Trainer Effectiveness Programme

MQA Accredited OHS Rep Skills Program

Analysis of the SHE Risk Management Maturity at the South Shaft Mine to determine the gap between the current status and best possible practices towards Zero Harm.

OHSAS 18001 safety system gap analysis audits, training and consultancy.

Participated in the incident analysis into 2 methane related incidents in the underground workings at Sasol Coal Mining.

3rd Party Incident investigations and analysis of fatal injury accidents.

Development of effective contractor management systems to prevent fatalities.

Risk Assessment on the modifications to the continuous mining machines at the Secunda Collieries.

Guiding and Participation in Implementation of a Behavior based Safety Programme tailored for SASOL Mining South Africa.



Development and Implementation of a Software Package to facilitate effective Root Cause Analysis for Incidents.

Development of SOP'S associated with Major Hazards: Safe Operating Procedure (SOP) for each task assessed. The SOP is a step by step procedure of the task and indicates the procedure, controls to be in place, permits required and inspections to be done.

Harmony Gold Group

Fatal Risk Management Implementation: Process and Cost Proposal for the Implementation of Fatal Risk Management within Harmony, GAP Analysis (Current scenario) as well as design and implementation that would be followed for the establishment of Fatal risk Management within Harmony

(Approximate project value: R4 500 000)

Harmony Gold Plants

Maturity Assessment: Identifying the organisational and operational strengths and weaknesses related to SHE Risk Management maturity based on the Expectra OBM™ process model

Conducted various Issue Based, Baseline and Continuous Risk Assessments

(Approximate project value: R5 000 000)

Development of Management standards and signing off on the key risks

Performing of Bow Tie Analysis

Review and adjust induction program to include site specific HIRAC

Area specific management standards

Identify and define Fatal Behaviour Protocols

Determining the leading indicators for the critical controls

Supply & configuration of our Risk Management Software System



Finalize Sector Leaders implementation process in Plant, Engagement Application, Reporting Methodology, Incident information gathering and Trend analyses

Harmony Gold Mines

Risk Assessment Training for Health and Safety Representatives, Team Leaders, Miners / Artisans, Shift Bosses / Foreman, Mine Overseers / Engineers

Major hazard management plans

Supply & configuration of a Risk management software system

Issue based risk assessment of hazards related to equipment, workplace environment and processes.

Identifying the Organisational & Operational strengths & weaknesses to SHE Risk Management Maturity on the Expectra OBM™ model

Analysis of Shaft incidents: Identification of incidents related to shaft operations and classification of high potential incidents

Assessment of the Catastrophic Hazards and associated Unwanted Events by means of Bow Tie Analysis, Identification of Catastrophic Hazards

Preparation of emergency plans

Issue Based Risk Assessment

Major hazards bow tie analysis

Critical task assessment

Major hazard management plans

Exxaro

Supervisor Development Programme: Addressing the knowledge, understanding and application of SHE and management processes of supervisory personnel (Shift Bosses, Foremen and SHE professionals)



Safety Professional Evaluation: Risk Competency Training for Tactical Level

Maturity Assessment : Identifying the organisational and operational strengths and weaknesses related to SHE Risk Management maturity based on the Expectra OBM™ process model with the purpose of identifying challenges in the safety, strategy, systems, practices and with people's behaviour.

BHP Billiton

Australia, USA, Canada, Chile, Peru, South Africa

Safety Systems Gap Analysis, Safety Systems Review, development and, implementation.

Training and compliance audits for benchmarking world wide

Training the total workforce in BECSA (Billiton Energy Coal South Africa) on Risk Assessments and risk management (HIRAC)

Implement the Train the Trainer Programme

Anglo Coal

Baseline and Issue Based Risk Assessments for Anglo Goedehoop, Kleinkopje, New Denmark and Greenside Colliery (CTi's, and Risk Registers included)

Safety Systems Review, Gap Analysis and certification audits on their internal Safety systems requirements and OHSAS 18001 requirements

Development of a specific Fatality Prevention Safety System, Fatality Prevention Standards, Assistance with Implementation and evaluations/audits.

Facilitating the development of a Fatality Prevention system, Standards, Templates and Audit Protocol

Training the total workforce in Anglo Coal South Africa) on Risk Assessments and risk management (HIRAC)



Kumba Resources

Doing a System Gap analysis, development of an integrated Safety/Health/Environment/Quality Management system and certification.

Support & Use of the NetTools® Risk Management Software Tool

Development and Implementation of an Integrated Risk Management System (SHEQ) at Grootegeluk Mine.

Training the total workforce on Mini Hira/Continuous risk assessment techniques

Total South Africa

Baseline Risk Assessment for Total Coal South Africa (Dorstfontein Colliery)

Implementation of a Behavior based Safety Programme tailored for Total Mining South Africa

Development and Implementation of a Software Package to facilitate effective Root Cause Analysis for Incidents and training on Accident/Incident analysis

Training the total workforce for Total Coal on Risk Assessments and risk management (HIRAC)

Kuyasa Mining (Delmas Coal)

Baseline Risk Assessment

Training the total workforce at Delmas Coal) on Risk Assessments and risk management (HIRAC)

Implement the Train the Trainer program

Kangra Holdings (Savemore)

Baseline Risk Assessment

Training the total workforce at Kangra on Risk Assessments and risk management (HIRAC)



Implementing an Integrated Risk Management total solution at Kangra

Implementing a behavior Based Safety Programme at Kangra.

Implement the Train the Trainer programme

Anglo Platinum Rustenburg

Provided assistance with the compilation of the Anglo Plats emergency planning for the various Rustenburg sites.

Impala Platinum

Previously did third party incident/accident analysis, trend analysis and recommendations for improvement for Impala Platinum

**Grinaker LTA
(Contractor Company)**

Behavior Based Safety System Design and Implementation

Eskom

Environmental Impact Assessment: Proposed 400MW (t) Pebble Bed Modular Nuclear Reactor Demonstration Power Plant.

(Approximate value: R1 500 000.00)

Environmental Impact Assessment: Braamhoek Pumped Storage Scheme Power Station.

(Approximate value: R700 000.00)

Samancor

Environmental Impact Assessment: Pelletizing Plant in Witbank.

(Approximate Value: R350 000.00)

Anglo Industrial

Environmental Due Diligence assessment of Anglo Industrial, for purpose of notation on London Stock Exchange.

(Approximate Value: R150 000.00)



Sonae Board Mill

Environmental Impact Assessment: Tafibra Wood Board Mill at Piet Retief.

(Approximate Value: R700 000.00)

EXAMPLES TRAINING EXPERIENCES

Expectra has trained more than 50 000 people in the mining industry locally and internationally (in-house and public courses) and has become renowned for the leading HIRAC (Risk Assessment) training provider in the mining industry.

Some of our clients include Sasol Mining, Delmas Coal, Eyesiswe, Kumba Resources, BHPbilliton, Anglo Coal and Anglo Platinum, to name but a few.

Many of our training programmes are delivered in the third world/developing countries, and our trainer have extensive experience in delivering training to low skills levels in the mining industry.

Our trainers all have strong mining industry experience base, especially coal mining, both in Engineering and Production Mining.

For this reason, the resources used by Expectra Global in Australia, will be from the South African operations



REFERENCES:

#	COMPANY	SCOPE OF WORK	VALUE OF SERVICES	OUTCOME
1	Parliament, Cape Town	Training & Consulting	R500,000	Learners accredited - certificates issued
2	Harmony Gold	Fatal Risk Management	R4 500 000	Successfully Implemented
3	Sasol Mining	MQA Accredited OHS Rep Skills Program	R4 500 000	Learners accredited - certificates issued
4	Sasol Mining	Various Risk Assessments	R 4 500 000	Successfully done
5	Eskom	Training & Consulting	R500,000	Learners accredited - certificates issued
6	Eskom	HIRAC Training	±R300,000	Attendees successfully trained. Certificates issued.
7	Total, Forzando	HIRAC Training Behaviour Based Safety	R400,000	Attendees successfully trained. Certificates issued.
8	Kumba Resources, Rosh Pinah Mine, Namibia	ISO14000 & OHSAS 18001	R600,000	Successfully obtained certification on both

#	COMPANY	SCOPE OF WORK	VALUE OF SERVICES	OUTCOME
9	Rand Water	Construction Regulations, Legal Training & Consultancy	±R300,000	Attendees successfully trained. Certificates issued.

10	SASOL Mining	HIRA Training both senior management and shop floor	± R3.5 million (7000 Employees)	Attendees successfully trained. Certificates issued.
11	ANGLO Coal	HIRA Training total workforce	± R4.5 million (12965 Employees)	Training Completed – Learners competent. Certificate issued
12	DE BEERS Venetia Mine	HIRA Training on operators and shop floor level	± R 250 000 (100 operators/workers)	Training Completed – Learners competent
13	BECSA BHP Billiton	Hirac training total workforce and Train the trainer	± R2.5 million (6 000 Employees)	Training Completed – Learners competent Certificates issues
14	Group Hochschild, Peru, Latin America	Hirac training total workforce and train the trainer	± R1.5 million (4 000 Employees)	Training Completed – Learners competent Certificates issues

MAPPING: INTERVENTIONS AND TOOLS

Organisational Behaviour Modification(OBM)

