Proceedings, 107th Annual General Meeting, 2004

The 107th Annual General Meeting of The South African Institute of Mining and Metallurgy was held at The Country Club, Johannesburg, Napier Road, Auckland Park on Wednesday, 11 August, 2004.

Welcome

The President extended a special welcome to the guests and representatives of our sister institutes and other associations, also to recipients of awards, senior members of industry, Honorary Life Fellows, past-presidents, our members and other guests, among them the following:

- Ralph Bagirathi, Executive Member, African Mining Association
- Rudi Rudolph, President, Association of Mine Managers of South Africa
- Andrew Whibley, President, Association of Mine Resident Engineers of South Africa
- Dr Con Fauconnier, President, Chamber of Mines of South Africa
- Nxolisi Diliza, Chief Executive Officer, Chamber of Mines of South Africa
- Prof. Jay Barton, President, The Geological Society of South Africa
- Mike Valenta, President, Mine Metallurgical Managers Association of South Africa
- Harold Muller, Past President, South African Institute of Chemical Engineers
- Prof. Bea Lacquet, Vice-President, South African Institute of Electric Engineers
- Bill Hadley, President, South African Institute of Mechanical Engineering
- Dr Francois Malan, President, South African National Institute of Rock Engineering

Minutes

The minutes of the previous Annual General Meeting, which were published in the September 2003 issue of the Journal, were confirmed.

Obituaries

The President announced the death, during the year, of the following members:

Life Fellows
- F.D. Cartwright, K.W. Findlay

Fellows
- G.W. Tregoning

Retired Fellows
- C.J. Csatary, M.H. Grusd, R.B. MacGillivray, S.J. Venning

Members

Student
- S. Nyalunga

In memory of the deceased and in sympathy with the bereaved, all rose and observed a moment of silence.

Honorary Life Fellowship

No awards were made this year.

Brigadier Stokes Memorial Award

Pat Willis: The Brigadier Stokes memorial Award was instituted in 1980 to commemorate the outstanding contribution to the South African mining industry made by Brigadier R.S.G. Stokes, an Honorary Life Fellow and Past-president of this Institute. The award is made to an individual for the very highest achievement in the South African mining and metallurgical industry. It gives me great pleasure to announce that the award for 2004 is to be made to Mr Hans Smith.

Pat Willis called upon Con Fauconnier, Chief Executive, Kumba Resources, to read the citation:

Con Fauconnier stated that it was a pleasure and honour to introduce the recipient of the Brigadier Stokes Memorial Award for 2004, Hans Smith. It was his privilege to have worked with Hans Smith as a colleague, and as an industry peer for many years, and he continued to enjoy a firm friendship with the great man, who probably needed no introduction to most of us.

‘Hans has devoted his life to the mining industry and his contributions stand as testimony to his foresight and leadership abilities. Hans’s successful career that culminated in his leadership at Iscor, earned him the title of ‘the grand old man of steel’, and it is appropriate that he is today being awarded this year’s Brigadier Stokes Memorial Award to also recognize his contribution to the mining industry.

He was educated at the University of Pretoria where he obtained a B.Sc. (Eng. Metallurgy) degree in 1963. He furthered his studies at Wits where he obtained a B.Sc. (Eng. Mining) two years later, and a postgraduate diploma in Market Research and Advertising from the University of South Africa in 1968. In addition, he also completed the senior management programme at the Harvard Business School in 1968.

After obtaining his degree in Mining Engineering, Hans started his career at Gold Fields SA’s Venterspost Gold Mine where he completed his basic underground mining training. He
was promoted in 1969 to technical assistant to the chief consulting engineer of Gold Fields.

In 1970 he joined Gencor. Initially he was employed as senior investment analyst before being promoted to assistant general manager at the Buffalo Fluorspar Mine in 1972. He subsequently became manager of Msali Asbestos (1973), operations manager of Gencor's Chrome Division (1974) and managing director of Zululand Titanium (1978).

He left Gencor in 1981 to take up a position as technical director of Ochta Diamonds, but the sparkle there must have eventually faded as in 1985 Hans rejoined Gencor as Manager, Strategic Planning at the company’s Corporate Mining Division.

Hans obviously impressed his Gencor bosses as in the same year he was promoted to Senior Manager, Marketing of Trans-Natal Coal Corporation and moved on to Chief Consultant, Safety and Health at Genmin in 1988. Later that year, he was again promoted to become managing director of the Trans-Natal Coal Corporation Limited. He served as managing director of Samancor Limited from 1989 until 1993, leading the company’s dramatic achievement of trebling earnings over these three years. This is probably where ferrous metals got into his blood and led to his joining Iscor Limited in 1993 as chief executive and managing director. He subsequently became the Executive Chairman of Iscor Limited in 1995 upon the retirement as chairman of Iscor of the legendary Marius de Waal.

On his arrival at Iscor, Hans faced a daunting task that would draw on all of his business acumen, visionary leadership and people skills to transform an unwieldy company into a truly competitive international company.

He immediately set to work to reduce excessive employee numbers and improve and streamline the business processes. Under his strategic guidance, in 1996 Iscor embarked on one of the most extensive re-engineering exercises ever witnessed in South African corporate history. During the course of this transformation programme, Iscor successfully reduced its head count by more than 30 000 from 56 000 to 23 000 over a five-year period. At the same time, production, particularly from the Mining Division, was increased.

I was privileged to be part of that process and I can assure you it was a difficult process that demanded courage and perseverance from its drivers. But throughout it Hans was there to support, encourage and motivate his employees. An eternal optimist, he gave his people hope in difficult times. ‘Down times enable one to prepare for up times,’ he used to say. ‘If you can survive in the bottom part of the cycle you will be well positioned to thrive when the cycle picks up.’

I know that Hans personally felt the loss when employees had to be retrenched but the long-term sustainability of the organization was a goal that had to be met.

The re-engineering process was an enormous feat and Hans and his team were lauded by local and overseas business communities and investors. The benefits soon started to flow to the bottom line and Iscor managed all of it without losing a single shift to industrial action.

Hans is a born leader. His ability to reach out and generate excitement for new initiatives was proved time and again. Even through tough times, he spurred his people on to think creatively and innovatively. Small wonder, then, that Iscor not only achieved the international benchmarks set as goals in the re-engineering process, but exceeded them in many instances.

He led the company with vision and knew his industry inside and out. He was proud of the fact that he was born on a mine, grew up in a mining community, worked on a mine, and eventually managed a company with huge mining interests.

Another remarkable ability that I must mention is Hans’s excellent time management and a knack for choosing the right timing to move forward with projects. Some of his top managers reckon that he is the best time manager they have ever had the pleasure of working with.

An example of his sense of timing is the unbundling of Iscor to spin-off Kumba as a separately listed company. Although keenly in favour of the unbundling, which was firmly in line with his constant quest to release value for shareholders, Hans understood the importance of waiting for the best time to effect this dramatic move. When the unbundling took place in November 2001, Hans personally negotiated potentially difficult issues that included the refinancing and restructuring of Saldanha Steel with key shareholder the IDC. His timing proved spot on, as in its first year under Hans’s chairmanship, Kumba achieved record profits, reduced debt and there were substantial share price increases for both Kumba and Iscor. Shareholder value had been fully achieved, with about R15 billion of market capitalization having been added via Kumba and Iscor within the first year after unbundling.

Hans’s keen interest in the well being of his fellow man was displayed through his support for numerous social upliftment projects sponsored by Iscor in communities surrounding the company’s operations. During his term of office at Iscor, the Iscor Foundation spent more than R150 million on community projects, largely in the field of education and training.

A measure of achievement is the awards and accolades received by an individual. Among the many made to Hans are:

- In 1994 he received the Public Relations Institute of South Africa Communicator of the Year Award.
- A director and chairman of the Executive Committee of the International Iron and Steel Institute.
- A trustee and chairman of Business South Africa.
- A trustee and council member of South Africa Foundation.
- He was presented the Great Silver Medal of Honour by the Republic of Austria in 1996 for his contribution to promoting business between Austria and South Africa.
- He received an Honorary Doctorate in Economic Science from the University of Transkei in 1998 for his contribution to turning Iscor around.

A University of Pretoria graduate, Hans Smith has maintained close ties with UP for many years. He has been a member of the university board since October 1994 and chairman of the Investment Committee of the Board since October 1999. At various stages he also served as a member of the Advisory Board of the department of Materials Science and Metallurgical Engineering and as honorary professor in this department.

His peers have described Hans as a strongly admired leader, well liked by his staff, customers and the industry. He is dynamic, very organized, productive, and has a great personality. He is a team player with great determination, something he probably learnt on the rugby field playing for both Transvaal and Northern Transvaal in his day.

I fully support these views. Hans’s honesty, integrity and foresight were well known and served him well as a survivor trying his best and excelling under tough South African circumstances.
Well done, Hans, you are a deserving recipient of the Brigadier Stokes Memorial Award. We salute you.'

Hans Smith: Mr Hans Smith stated that in life he had always strived to find the balance between wanting to be liked and wanting to be respected. He had found that when one made the right decision, the balance would follow.

So, too, in his retirement, he had wondered where the balance between wanting to be liked (by his family) and wanting to be respected (by his peers) would happen.

This has been achieved by the SAIMM nominating him for the prestigious award. He could now sit back and enjoy his retirement because he had reached the balance.

Mr Smith thanked the SAIMM Council members for selecting him as the recipient of the Brigadier Stokes Memorial Award, which he added, was not just an ordinary award.

Presentation of Awards, Medals and Certificates
Pat Willis announced the following awards, medals and certificates, which were presented by Dick Stacey.

50-year Membership Awards

- B.G. Fordyce, Elected 14 May 1954 as a Student
- G. Langton, Elected 9 April 1954 as an Associate Member
- A.A. Sealey, Elected 14 May 1954 as a Student
- G.D. Tainton, Elected 9 April 1954 as a Student
- J. Uys, Elected 9 April 1954 as an Associate Member
- N. Zolezzi, Elected 8 May 1953 as a Student

Transaction papers published in the Journal from March 2003 to February 2004 by members of the Institute were considered for the following medals:

Gold Medal
J.N. van der Merwe for his suite of Transaction papers published in the June issue of the Journal entitled:
‘A laboratory investigation into the effect of specimen size on the strength of coal samples from different areas’, ‘New pillar strength formula for South African coal’ and ‘Predicting coal pillar life in South Africa’.

Silver Medals
M.F. Handley for his Transaction paper published in the June issue of the Journal entitled:
‘Aspects of time-dependent deformation in hard rock at great depth’.

K. Drescher co-author and non-member of the Institute, received a certificate.

T.R. Stacey for his Transaction paper published in the July/August issue of the Journal entitled:
‘New slope stability considerations for deep open pit mines’.

X. Yu, R. Armstrong, and G.J. Keyter, co-authors and non-members of the Institute, received certificates.

P.C. Pistorius for his Transaction paper published in the October issue of the Journal entitled:
‘Fundamentals of freeze lining behaviour in ilmenite smelting’.

A. Singh, J.J. Louw, and D.G. Hulbert for their Transaction paper published in the November issue of the Journal entitled:
‘Flotation stabilization and optimization’.

F.R. Camisani-Calzolari and P.C. Pistorius for their Transaction paper published in the December issue of the Journal entitled:
‘Quality prediction in continuous casting of stainless steel slabs’.

I.K. Craig, co-author and a non-member of the Institute, received a certificate.

P.C. Pistorius for his Transaction paper published in the December issue of the Journal entitled:
‘Descaling behaviour of stainless steel following simulated reheating’.

N-A. Quagraine and C. Coetzee, co-authors and non-members of the Institute, received certificates.

W.E. Stumpf for his Transaction paper published in the December issue of the Journal entitled:
‘Grain size modelling of a low carbon strip steel during hot rolling in a Compact Strip Production (C7SP) plant using the Hot Charge Route’.

Presentation of Student Prizes
Pat Willis announced the student winners of the SAIMM Prestige Prize:

University of the Witwatersrand
Prestige Prize:
Mining S. van der Merwe
Metallurgy N. Dlamini

University of Pretoria
Prestige Prize:
Mining A. Nel
Metallurgy J. Steyn
Student Dissertation B. Burger

Technikon Witwatersrand
Prestige Prize:
B. Tech. Mining Engineering W. Nel

The following SAIMM Prestige prizes were presented to the students at the Western Cape Branch AGM on 4 August 2004, with the exception of R. Snodgrass who received his award at this AGM.

University of Cape Town
Prestige Prize:
Chemical Engineering C. Anderson
Materials Engineering S. Parker

University of Stellenbosch
Prestige Prize:
Chemical Engineering R. Snodgrass

Cape Technikon
Prestige Prize:
Chemical Engineering H. Deist
Annual Report and Accounts

Willem van Niekerk presented the financial statement. This year has been another financially successful year for the Institute, which now makes it four good years in a row. With all the changes around us in our industry, we are conscious of the fact that a period of fat years could be followed by lean years. This last year we had a number of international conferences, which are cash cows. This coming year looks lean on the international conference front, so we need successful local events.

Subscriptions have increased with Company Affiliates increasing at a greater rate than the escalation in fees at R362 654 (R275 936). This is due to an increase in membership. Individual membership showed a slight increase at R894 444 (R880 309).

Conferences, colloquia and schools brought in a surplus of R1 483 812 (R1 344 868). Interest and dividends received increased substantially to R407 229 (R263 204). This was due in the main to the healthy cash position that was maintained throughout the year.

The annual revaluation of our investments showed a positive value of R402 037 compared to the negative value of R469 787 in 2002/2003. The net income from special events fell sharply to R8 399 (R72 158).

In summary, the surplus for the year is R1 383 445 (R2 480 900). Expenditure decreased for the year to R2 196 556 (R2 660 030). This was achieved in spite of an increase in secretarial costs to R586 283 (R472 987). This is due to an increase in the number of staff. The Journal costs rose to R1 266 414 (R1 088 392) due to the publication of an increased number of issues during the year. Offset against this was increased advertising revenue of R532 552 (R486 948) and sales of R120 960 (R175 013). Administration expenditure rose to R788 195 (R674 684). Subscriptions written off were maintained at R90 964 (R91 992).

In summary, the surplus for the year increased to R3 580 001 (R2 840 900). Our listed investments have increased to R3 358 262 (R2 147 593) and our cash and cash equivalents have risen to R3 965 571 (R2 870 770). Our accounts receivable dropped dramatically to R553 729 (R1 951 384). This was due in part to an aggressive debt collection exercise embarked on during the year. Our accounts payable also dropped to R1 134 586 (R3 268 189).

Our financial success this year is due to the efforts of our technical committees. They are the ones who create our surplus—they brought in R485 812 and our surplus was R1 383 445. This continues our policy of not having to rely on conferences, colloquia and schools to cover the running of the Institute. Running costs are borne by subscriptions. Finally, I would like to thank our Secretariat who have put an extra effort into debt collection. To Mrs Winning, our accountant, go my thanks for providing detailed accounts for each monthly Council Meeting, and to KPMG for producing the audited financial statements in good time.

Office Bearers and Members of Council for 2004/2005

Dick Stacey announced the office bearers for the ensuing year, elected by the retiring Council in accordance with Clauses 3.2 and 3.3 of the Constitution:

- President: F.M.G. Egerton
- President-elect: Dr W.H. van Niekerk
- Senior vice-president: R.P.H. Willis
- Junior vice-president: R.G.B. Pickering
- Immediate past-president: Prof. T.R. Stacey
- Honorary treasurer: J.A. Cruise

In terms of the election of ordinary members of Council (by-law 3.2.7), there is a letter from the scrutineers stating 'We have to report that we inspected the nomination papers for members of Council for the 2004/2005 session, and have found that the ballot papers sent out to Corporate Members of the Institute were in order. As a result of our scrutiny, we find that the following members have been elected (in alphabetical order):

- A.M. Croll
- J.C. Ngoma
- P.H. Ferreira
- K.C. Owen
- Dr A.M. Garbers-Craig
- M.K.C. Roberts
- J.M.A. Geldenhuis
- G.L. Smith
- K.J. Hay
- Prof. J.N. van der Merwe
- G.V.R. Landman
- D.J. van Niekerk
- Dr N.C. Machingawuta
- H.G. Waldeck

In addition, Dr A. Mulaba and P.J. Knotenbelt have agreed to represent non-corporate members of Council.

In terms of Clause 3.2.8 of the constitution, the chairman of the Branches are as follows:

- Johannesburg: J.L. Porter
- Pretoria: H. Moller
- Free State: C. de Villiers
- Mpumalanga: M.R. Mohring
- Western Cape: D. Bradshaw
- Bushveld: C.A.F. Sweet
- Zululand: I.J. Walton

These chairmen will serve on Council.

The following past-presidents have signified their willingness to serve on Council for the ensuing year:

- Dr N.A. Barcza
- H.E. James
- R.D. Beck
- R.P. Mohring
- Prof. A.N. Brown
- S.J. Ramokgopa
- Dr L.A. Cramer
- M.H. Rogers
- Dr L.A. Cramer
- J.A. Cruise
- D.A.J. Ross-Watt
- J.R. Dixon
- O.K.H. Steffen
- A.A.B. Douglas

Dick Stacey thanked those past-presidents, who indicated that they cannot serve on Council for the next year, for all their time, effort and dedication in the past.

He also thanked to past-presidents for their continued support. He congratulated all those elected, and thanked those who agreed to serve another term of office.

Election of Auditors and Honorary Legal Advisers for 2004/2005

Dick Stacey proposed and it was agreed, that Messrs KPMG be re-appointed as auditors for the coming year and that Van Hulsteyn, Attorneys be re-appointed as Honorary Legal Advisers.

Induction of President

Dick Stacey introduced the new President, Frank Egerton and called upon Les Jagger to read Frank Egerton’s CV.
Frank was born in Benoni in May 1942 into a mining family with a history of five generations in mining, extending back to tin mining in Ceyxwall. Most of his schooling was at Jeppe Prep and Jeppe High School. After matriculating in 1960 he joined the Union Corporation group of mines at East Geduld Mine as a learner official.

Frank attended the University of the Witwatersrand where he graduated with a B.Sc. Eng. in Mining Engineering in 1967. He obtained his Mine Manager’s Certificate in 1968. He completed the Executive Development Programme at Wits Business School in 1981.

He worked on a number of the Union Corporation mines, (later to become Gencor, then Genmin, and currently Gold Fields), including Grootvlei, Bracken, Leslie, Winkelhaak, Impala Platinum, West Rand Consolidated, St Helena, and Barberton (Fairview). He was also seconded to the Hendrik Verwoord Dam (renamed Gariep Dam), where he was in charge of the excavations and tunnels. During this time he progressed through the ranks as a miner, shiftboss, mine overseer, underground manager, mine manager (underground), and finally general manager, a position which he held for thirteen years.

He then moved to the Technikon Witwatersrand for a short sabbatical of two or three years. This proved to be so challenging and satisfying that he spent the next ten years there. He heads up Julyan Mining and is currently consulting to Anglo Platinum.

Frank became a Professional Engineer in 1972. He joined the SAIMM on 3 May 1966 and was elected a Fellow on 11 February 1977. He has served on council since 1992 and has chaired the Technical Programme Committee Mining, the Career Guidance Committee, and the Membership Committee, as well as serving on numerous other SAIMM committees. Prior to being elected to Council, he served on the Free State Branch of the SAIMM, and was chairman of the branch in 1987.

He joined the Association of Mine Managers in 1969, where he served on Council for a number of years, and as president in 1991/1992. He was elected an Honorary Life Member in 1992.

Frank and his wife Rose were married in Benoni in 1968. They have three lovely daughters and a granddaughter. They like to spend their spare time bird-watching and game-viewing. He has been actively involved in the Lions Club International since 1974, and was elected district governor in 1982. He is a rugby, cricket and golf devotee and he and Rose like hiking.

Frank Egerton delivered a brief acceptance speech. He then presented Dick Stacey with a commemorative plaque as a memento of his term in office.

Presidential Address
Frank Egerton then presented his presidential address entitled ‘The mechanization of UG2 mining in the Bushveld Complex’, which is reproduced elsewhere in this edition of the Journal.

Vote of thanks
Mike Rogers gave the vote of thanks:
‘Mr President, ladies and gentlemen, ’It is a great honour for me to propose a vote of thanks, on behalf of all members of the SAIMM, to Frank Egerton for his interesting and thought-provoking address.

To many, the mining industry may appear to be a slow moving monolith, not easily given to change. But change it does.

The platinum mining industry has come a long way in the last thirty years since Frank and I were underground managers, he at Impala Platinum Mines and I at Rustenburg Platinum Mine. Both mines exploited the Merensky reef using the handgot, labour-intensive herringbone stoping method.

We were absolutely forbidden to talk business when we met at industry forums and social contact was discreet.

Change has happened and continues. Mining methods have changed from those very comfortable and easy methods to conventional scraper mining in its many applications. The previously ignored sister reef to the Merensky, the UG2, is becoming an ever-increasing source of platinum group metals.

Tonight we heard about mining the UG2 using trackless mechanized mining methods. Frank gave an indication of costs and grades, and this in an address that will be read by platinum miners all over South Africa and the world.

We are moving out of our comfort zones. Like the change from herringbone to scraper mining methods on the Merensky Reef, the change to the UG2, while attempting to mechanize at the same time, has not been without challenges. Frank deals with a number of these in his address and points to a possible successful mining method.

The narrow width of the UG2 reef and its unique and difficult geotechnical setting are described.

The introduction of mechanized mining methods in this stoping environment is covered. Frank deals with the impact of dilution, additional ventilation requirements, the need for change in existing narrow-reef mining cultures and the absolute necessity for training, starting with senior management.

The ingenuity of the mining engineer, in his quest to optimize returns from this new mining environment in today’s demanding financial climate, is demonstrated in the address.

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Frank’s address describes the need for the mining engineer, the equipment manufacturer and the mine operator to develop a highly productive and financially viable mining method to exploit the UG2. One such method suggested is bord-and-pillar mining using an extra low profile (XLP) suite of equipment.

Mr Egerton concludes that the challenge is to extract the purest product from the stope at the lowest cost. I concur with this age-old observation. The gauntlet has been thrown down. ‘Will the mining engineers, equipment manufacturers and mine operators rise to meet the challenge?’ is the question. After all, the UG2 remains one of the biggest platinum group metals resources in the world.

Tonight’s address will provoke much discussion and thought amongst mining professionals, academics and students alike.

It remains for me to congratulate you once again Mr President on your excellent address and to wish you, with support from Rose, an enjoyable and successful term as president of the Institute. I have known Frank from our days as student mining engineers at University and have full confidence that members can look forward to a successful year under his stewardship as our president.

Closure
The meeting closed at 18:00.
Dick Stacey declaring the Annual General Meeting open

Pat Willis, Master of Ceremonies

Con Fauconnier reading the citation of Hans Smith, recipient of the Brigadier Stokes Award

Hans Smith, recipient of the Brigadier Stokes Award, receiving his Platinum Medal from Dick Stacey

Recipients receiving their 50-year Membership Lapel Badge from Dick Stacey

B.G. Fordyce

N. Zolezzi
Recipients receiving their medals for papers published in the SAIMM Journal

J.N. van der Merwe—Gold Medal

M.F. Handley—silver medal

T.R. Stacey—silver medal

P.C. Pistorius—three silver medals

J.J. Louw—silver medal

F. Camisani-Calzolari—silver medal

W.E. Stumpf—silver medal

K. Drescher—Certificate of Merit

R. Armstrong—Certificate of Merit
Members and their guests at the Cocktail Party

Judy and Dick Stacey with Uli Vogler
Rick Mohring and Joshua Ngoma
Ken Owen, I. Motunaye, and Guys Landman

Robert and Ron Snodgrass, Sheri Lambert with Richard Atkinson
Sue and Bill Abel with Fernando Vieira

Charles and China MacPhail

Lydia Smith, Sheri Lambert and Lorraine Camisani

Students from the University of Pretoria
Ralph Bagirathi with Mike Rogers