

# Proceedings

## SEPTEMBER GENERAL MEETING

The September General Meeting of the Institute was held in Kelvin House, Johannesburg, on 16th September, 1970, at 3.00 p.m.

Mr V. C. Robinson (President) was in the Chair.

There were also present one hundred and eighteen Fellows, including Dr J. M. Bereza, H. P. Carlisle, R. J. C. Goode, Dr J. P. Hugo, P. Lambooy, Prof R. P. Plewman, W. W. Malan, Dr J. T. McIntyre, Dr M. D. G. Salamon, L. W. P. Van den Bosch, P. A. von Wielligh (Council Members), A. Bain, G. P. Bennet, D. L. Carson, G. L. H. Diering, M. E. E. Douglas, F. A. B. Fouche, R. Fourie, A. R. C. Fowler, E. B. Gordon, J. S. Hay, G. H. Henderson, S. D. Hill, A. C. Hofmeyr, J. M. Jacobs, A. F. Lee, D. G. Malan, L. J. Prince, W. G. Pyne-Mercier, A. H. Mokken, Dr W. S. Rapson, R. R. Richardson, H. V. Solomon, C. G. Sowry, G. G. Stanley, G. R. Still, D. L. Starkey, D. L. Taylor, E. W. Thiel, I. E. Van Aswegan, M. van Ryneveld Steyn, N. B. Vinson, H. Wheeler, Dr A. Whillier, R. A. Wilson, C. F. Ziervogel.

Forty-two Members including R. C. Bertram, F. Collier, G. C. Currie, O. Davel, J. M. Gosnell, A. Hazell, Dr N. C. Joughin, F. Kleinschmidt, D. Love, R. B. Macgillivray, D. Mather, R. D. R. Munro, R. S. Pearson, J. J. Peisl, T. J. Pole, A. J. Rossouw, R. G. B. Skirving, G. S. Schwartz, K. Steele, H. A. G. Slater, A. Taylor, B. A. Thomas, P. L. Vaughan, D. T. Watt, W. Wilson.

Nineteen Associates including R. K. Briggs, S. I. Du Preez, P. G. Gaylard, P. H. Hartsliet, W. M. Mackay, A. D. Ross.

Three Students: V. S. Carr, R. J. Drummond, P. J. Pretorius.

Thirty-one Visitors including C. P. S. Barnard, D. W. Bosch, M. Bain G. L. Brown, G. D. Behrens, C. Coetzer, D. M. Gilbert-Smith, R. L. Man, Dr G. J. Stander, M. W. L. Steinobel, R. H. E. Thorpe, T. D. van Wyk, P. H. van Zyl, E. Vereecken, J. J. H. Viljoen.

Secretary, D. C. Visser.

Total present: 215.

### OBITUARIES

**The President:** "It is my sad duty to announce the death of the following: Bruce Donaldson Crawford, Fellow, who joined the Institute in 1951 and passed away on 29th April, 1970. Donald Joseph Powrie, Life Fellow, who joined the Institute in 1935 and passed away on 22nd July, 1970.

As a mark of respect to the memory of the deceased and in sympathy with the bereaved I would ask you all to rise and observe a few moments' silence."

### MEMBERSHIP

**The President:** "I have much pleasure in announcing that the names of the under-mentioned candidates, having been published in accordance with By-Law 5.2.2, Council has elected them to membership of the Institute in the following grades:

*Associate:* William Norman Carter.

*Students:* Roman Michael Dabrowski, Sean George Dean Eaton, Alan Philip Stonham Howard, Anton du Preez Roos, Richard Harold Tourle.

### MEMBERS TRANSFERRED TO A HIGHER GRADE

*From Graduate to Member:* Terrance Alexander Ward.

*From Associate to Member:* Bernard Andre Thomas.

"I welcome the newly elected members to the Institute and congratulate the members who had been transferred to a higher grade."

### CO-OPTION

**The President:** "I wish to advise members that, in terms of clause 3.9 of the Constitution, Mr. H. P. Carlisle had been co-opted to serve on Council."

### PAPERS FOR PRESENTATION

**The President:** "We have two papers today, and I am first going to call on Dr Stander the Head of the Water Division of the C.S.I.R., who is well known to many of you for his work and talks on pollution, who has had more than a little to do with this industry, and who has been I would say, of the greatest possible assistance to the mining industry in overcoming the problems of pollution which are so prevalent in industry of this nature. He, Mr Henzen and Mr Funke have written this paper, 'The disposal of polluted effluents from mining, metallurgical and metal-finishing industries, their effects on receiving water and remedial measures.' This is the Water Year, as you know, and it is most appropriate that we should have such an authority to talk to us on this very important topic. I now have much pleasure in asking Dr Stander to introduce his paper."

After the presentation of the paper the President said, "Gentlemen, I am sure that you would like me on your behalf, to thank Dr Stander very sincerely for a paper which I think has enabled us to get a completely new slant on the Water Year. There are many people who have put their finger on this campaign and said, it is all a gimmick. There are others—I suppose notably some of the bridge clubs which operate on week-day afternoons in Parkview—who seem to think that this is a quick way of getting early rain. Of course, it is not.

This is a most important paper which we have had given to us this afternoon. You probably found it here when you arrived and have not read it—I was very lucky to be able to read it last night, and there is an awful lot of meat in it. For as long as I have been associated with mining in any way, there has been a problem of polluted effluent—of effluents carrying a mineral load from mining, and I think Dr Stander is absolutely right—and, of course, the Commission is right when they say that this is not merely the problem of mine management or mine owners—this is a problem which affects every single human being in this country.

He has made some quite interesting comments, and I am sure there are going to be some interesting contributions. We have all seen the ravages of the acidic mine waters underground—Dr Stander mentioned effluents from open adit mines in Natal. I can well remember when I was a member of the Mines' Department staff, going out with some Government people chiefly to gather enough evidence to prosecute the manager of a colliery, who was letting water run into a public stream. He violently contested this and when we were there, produced half-a-dozen native pigs to drink the water to convince us of its purity. A photograph was taken of this and finally he duly ended up in Court. There was quite a furore when one of the lawyers got up and said, 'Your Worship, you will notice that in the foreground of this picture there are a whole lot of native pigs drinking this polluted water. The manager is also there, he is the one with his hat on.'

Dr Stander, I think, has been generous in his tribute to the work done in the Chamber on this problem—in my time we have seen a lot of work done. He has mentioned some very interesting points which I am sure ought to receive further attention, and I note Mr Daneel here frantically writing these down—I hope that this is for further reference.

I think it is absolutely right that at the end of 1970, which is the Water Year, this Institute should have a man of Dr Stander's standing, to come and put these facts before us, for us to take home and ponder. You know, the real use of water is the reclamation of it, and you will hear people say that this country is so frightfully dry—that this is just a country without water. I heard facts today at lunch which astonished me and made me wonder whether we are not all a little blind in this respect, and whether we should not look a great deal further than our noses. Accept that it is a dry country, but accept that there are undisclosed subterranean sources of water which we should look for, and that we should use the evidence which is spread before us in a paper such as this, to make far better use of the heritage which is ours in the way of water.

Thank you very much indeed, Dr Stander."

Dr C. M. van Stander and A. B. C. Daneel then contributed to the discussion (these contributions will appear in a later issue of the *Journal*).

**The President:** "The next paper in our agenda will be a paper which was published in the June number of our *Journal*, this is, 'Manpower utilization in South Africa with special reference to the mining industries,' by Mr Hugh McGregor who, as you know, is Chairman of the P.E. Consulting Group. He is really a mining engineer who has seen—I was just going to say "seen the

light"—a mining engineer gone wrong, probably. He has been one of us for a long time. There are two things which Mr McGregor has very specially to commend him—the one is that he was among the original founders of the Witwatersrand University Mining Engineers' Association, which, in fact, saw the light of day or the light of late afternoon in the pub in this building, and then he was also a very leading light—in fact, the guiding light of St. Martin's School in this town. He really should need no introduction to any of you for his professional attainments, and I have great pleasure in asking him if he will introduce the paper which, as I say, has been published in our *Journal* and which you have all read with as much interest as I did."

After the presentation of the paper the President said:

"Thank you very much, Mr McGregor, for a paper which I am sure, gentlemen, you will find extraordinarily interesting and provocative. I know from the number of people who asked to contribute this afternoon, which is large, that a lot of people have been giving a lot of thought to this very much misused and very little understood word, productivity. I think that this paper and the discussion which will certainly follow, will be an important contribution to the literature on this subject, which in this country anyway has been fogged by all sorts of other considerations, particularly when you take the very first word in the title of the paper, 'manpower'. This is a word which has been very much bound up in this country with prejudices, with laws, with natural conditions, and with everything that has nothing to do really with the efficient sensible use of manpower. I think that we need what Mr McGregor mooted a moment ago, a special bureau to look into the utilization of manpower and the way our minds revolve round this particular concept.

I am not going to continue now because I know that the volume of contributions will point the interest which Mr McGregor's paper has aroused. Thank you very much for your paper."

Dr W. S. Rapson, E. W. Thiel, Dr N. C. Joughin and Dr N. G. W. Cook, E. Margo, J. M. Pike, J. R. Brett, W. H. Keeley and M. Dagut then contributed to the discussion. (These contributions will appear in a later issue of the *Journal*).

**The President:** "Gentlemen, I would like to thank the authors and those who have contributed. To those who would have liked to and who have not had time, I suggest you send your contributions to the Secretary in writing.

Thank you very much for your attendance and I declare the meeting closed."

The meeting closed at 6.20 p.m.

## ORANGE FREE STATE BRANCH

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### JULY GENERAL MEETING

The meeting was held in the St. Helena Club at 8 p.m. on the 8th July, 1970.

Mr N. A. Honnet (Chairman, O.F.S. Branch) was in the Chair.

There were also present: Nine Fellows, Messrs J. G. Kirchner, G. Y. Nisbet, R. S. Pearson, J. N. Saunders, I. Thomas (Committee Members), C. J. Isaac, S. L. Swart, J. Handley, H. J. Stockden.

Six Members, Messrs A. Hepburn, G. J. C. Young, R. Campbell, J. D. Couperthwaite, D. E. Couperthwaite, D. C. B. Reynolds.

Four Associates, Messrs A. E. Hooper, R. B. Smith, A. Paschalides, C. L. Harrison.

One Graduate, Mr M. H. Smith.

One Student, Mr J. C. Simms.

Seven Visitors.

Total present: Twenty-nine.

Apologies for absence were received from Messrs L. O. W. Leimer and N. Meyer.

### MINUTES OF THE PREVIOUS GENERAL MEETING

The minutes of the General Meeting held on the 11th

February, 1970 were taken as read, and were confirmed.

### GENERAL BUSINESS

Messrs R. Campbell, S. L. Swart and G. J. C. Young were nominated and elected to be scrutineers for the forthcoming election of Committee Members.

### TALK BY MR J. N. SAUNDERS

The Chairman invited Mr J. N. Saunders to deliver his talk on 'New metallurgical developments in the Anglo American Corporation Gold Mines.'

The presentation of this talk proved very interesting and stimulating and was received with applause from all present.

Mr I. Thomas proposed a vote of thanks to Mr Saunders on behalf of all members of the O.F.S. Branch.

### CLOSURE

After thanking Mr Saunders for his talk and all present for their attendance, the Chairman declared the meeting closed at 9.10 p.m.

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### ANNUAL GENERAL MEETING

The Annual General Meeting of the Branch was held in St. Helena Club on Thursday, 27th August, 1970 at 8 p.m.

Mr N. A. Honnet (Chairman) was in the Chair.

There were also present: Mr R. C. J. Goode, representing the Council of the South African Institute of Mining and Metallurgy.

Ten Fellows, Messrs J. G. Kirchner, L. O. W. Leimer, G. Y. Nisbet, J. N. Saunders, I. Thomas, L. J. Thorne (Committee Members), J. M. Meyer, H. J. Stockden, S. L. S. Swart, D. Waterman.

Four Members, Messrs D. V. Baum, R. Campbell, B. J. Drysdale, M. Foster.

Two Graduates, Messrs M. H. Smith, T. R. Stromsoe.

Four Associates, Messrs R. M. Erasmus, A. E. Hooper,

Four Associates, Messrs R. M. Erasmus, A. E. Hooper, A. Paschalides, R. B. Smith.

Eight Visitors.

Total present: Thirty-one.

An apology was received from Mr N. Meyer.

The Chairman declared the meeting open and, on behalf of the Branch, thanked Mr Goode for coming from Johannesburg to present a talk.

### MINUTES OF THE PREVIOUS GENERAL MEETING

As the Minutes of the General Meeting, held on the 8th July, 1970 had not yet been published in the *Journal*,

the Chairman moved that the adoption and discussion thereof be deferred to the next General Meeting.

At Mr Honnet's request Mr R. C. J. Goode took the Chair during the presentation of the Chairman's Annual Report (published in the August *Journal*).

There being no questions, the Chairman's Annual Report was unanimously approved by the meeting.

The Chairman then returned to the Chair.

### ELECTION OF OFFICE BEARERS AND COMMITTEE MEMBERS FOR THE YEAR 1970/71

The Chairman announced that the outgoing Committee had elected the following office bearers for the coming year:

*Chairman:* J. N. Saunders.

*Vice-Chairman:* G. Y. Nisbet.

*Immediate Past Chairman:* N. A. Honnet.

As a result of their examination, the scrutineers reported that the following had been elected to the Committee: C. J. Isaac, J. G. Kirchner, L. O. W. Leimer, R. S. Pearson, I. G. Thomas, A. von Holdt.

The Chairman thanked the scrutineers for their services and congratulated Messrs Kirchner, Leimer, Pearson and Thomas on their re-election and Messrs Isaac and von Holdt on their election to the Committee.

## INDUCTION OF CHAIRMAN

The Chairman introduced Mr J. N. Saunders to the meeting by briefly outlining his past career and, after congratulating him on his election, called upon him to take the Chair.

Mr Saunders, after thanking Mr Honnet for his kind introduction, expressed his gratitude to the Committee for electing him to the office of Chairman. In congratulating the outgoing Chairman on a very successful year of office Mr Saunders stated that he would endeavour to maintain the high standard that had been set by Mr Honnet and moved a vote of thanks and appreciation for Mr Honnet's efforts. This was carried unanimously.

Mr Saunders, on behalf of the Branch, congratulated Mr J. G. Kirchner on his promotion and Mr G. Thorburn on his retirement. He expressed the regret felt by the

Branch at the departure from the area of these two Members.

## THE PROFESSIONAL ENGINEERS' ACT

The Chairman called on Mr R. C. J. Goode to deliver his address entitled 'The Professional Engineers' Act'. The presentation of this talk which was most interesting and entertaining was received with applause from all present.

Mr G. Thorburn proposed a vote of thanks to Mr Goode on behalf of all members of the O.F.S. Branch.

## CLOSURE

After thanking Mr Goode for his talk and all present for their attendance, the Chairman declared the meeting closed at 9.30 p.m.

## WITBANK/MIDDELBURG BRANCH

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### JUNE GENERAL MEETING

Proceedings of the meeting held at the MOTH Hall, Witbank, on 25th June, 1970, at 5.35 p.m.

Mr J. Meintjes (Chairman) was in the Chair.

There were also present: Eight Members, Messrs J. Meintjes, I. Botha, G. E. Carlyon, A. W. L. Brereton, O. T. Wright, J. Kitson, H. N. Reid, Alex Bain.

Two Associate Members: Messrs W. D. Winship, D. M. Morris.

One Student, Mr M. J. de Beer.

One Visitor, Mr C. N. Attwell.

Apologies, Mr R. E. Powell.

The Chairman declared the meeting open at 5.35 p.m.

The minutes of the last meeting were read and confirmed.

The Chairman called for nominations for Scrutineers for the election of members of the Committee for 1970/71 and the following were proposed:

G. E. Carlyon, proposed A. W. L. Brereton, seconded I. Botha.

W. D. Winship, Proposed H. N. Reid, seconded A. W. L. Brereton.

A. Bain, Proposed J. Meintjes, seconded J. Kitson.

Mr. J. Meintjes then presented his paper 'Dealing with dust and fume from electric furnaces at Rand Carbide Ltd., Witbank.'

The paper was well received and a lively discussion followed.

The meeting closed at 6.53 p.m.

### ANNUAL GENERAL MEETING

The Annual General Meeting of the branch was held on the 28th August, 1970, at 6.30 p.m. in the Witbank Golf Club Lounge, Witbank.

Mr J. Meintjes (Chairman) was in the Chair and there were also present 16 Corporate Members, 7 other Members and 7 Visitors.

The minutes of the last General Meeting were read and accepted on the proposal of Mr Carlyon, seconded by A. Bain.

The Chairman then read his report for the past year.

#### ELECTION

The result of the ballot for the members of the Committee for the ensuing year was read and the following members were declared elected:

Messrs B. T. Hosking, W. D. Winship, E. J. Jackson, A. W. L. Brereton, B. D. McNeice, I. Botha, G. E. Carlyon.

In terms of the Constitution Mr J. Meintjes was elected Chairman and Mr A. Bain Vice-Chairman at the last Committee meeting.

The Chairman read the Financial Report for the year, which was accepted, on the proposal of Mr Carlyon, seconded by Mr Bain.

#### TALK

The Chairman then invited Mr R. C. J. Goode to read his paper 'The status of Professional Engineers'.

Following a discussion on the paper Mr Meintjes thanked the author for his fine presentation of what could have been a very dull subject.

He thanked Mr and Mrs Goode, Mr J. K. E. Douglas, the Immediate Past President of the Institute and Mrs Douglas for attending.

After the meeting Mr Bain showed films of Japan and Thailand.