

Discussion: Support in shallow mines using horizontally reinforced systems*

Further contribution by M. D. G. Salamont†

It is perhaps somewhat unusual for a contributor to comment on the authors' reply‡ to his critiques§. However, I should like to return to a specific comment made by the authors.

They presumed from my figures that the surface subsidence would be about 10 mm, and not 100 mm as I had stated (p. 149). I should like to explain why 100 mm is the correct estimate of surface subsidence in the example mentioned in my contribution.

The authors and I agree that the mean pillar convergence is about 67 mm. Fields of vertical compressive and tensile strain develop above and below the pillars and bords respectively. Thus, the average convergence of the roof and floor is *greater* than the convergence of the pillars. Also, it is well known that, when a fairly large area is mined and supported by pillars, the surface subsidence in the central region is approximately equal to the

mean convergence. Therefore, the surface subsidence must be greater than the average convergence of the pillars.

Like the authors, I have not been persuaded to change my views, but I shall not repeat my contentions here. The main purpose of my contribution was to point out that the design of any field trial would have to be undertaken on a multi-disciplinary basis and by consideration of the entire system, including the supports and the supported rock mass.

* Paper by J. A. Hahn, G. E. Blight, and L. Dison published in *J. S. Afr. Inst. Min. Metall.*, vol. 82, no. 10, Oct. 1982, pp 277-290.

† Research Adviser, Chamber of Mines of South Africa, Carlow Road, Melville, Johannesburg 2092.

‡ *J. S. Afr. Inst. Min. Metall.*, vol. 83, no. 6, Jun. 1983, p. 149.

§ *Ibid.*, pp. 142-144.

Award to Bob Laburn

The Federation of Societies of Professional Engineers (FSPE) is pleased to announce that the 1984 FSPE Award for Services to the Engineering Profession was presented to Dr R. J. (Bob) Laburn at a function held on 14th February, 1984.

In receiving the award, Dr Laburn, a Past President of FSPE and former chief engineer of the Rand Water Board, spoke out about the discontent, uncertainty, and lack of confidence that water shortages breed. In spite of excellent efforts, water shortages still occur all too frequently: some, as in the present 1-in-200 year drought, are virtually unavoidable, but it was inexcusable that shortages should occur where the severity of the drought was only 1 in 20 years or so.

He said Parliament had not yet fully appreciated that water resources will be the limiting factor in the longer-term development of South Africa, and consequently the amount allocated to the development of water resources in our semi-arid land was disappointingly low.

He called for greater cooperation with neighbouring territories on water resources. On the one hand South Africa needed water, and on the other its neighbours needed assistance in developing their own supplies. Projects of this kind take years or decades to implement, and now was the time to address the problems, most of which were political and financial rather than technical.

Water was taken for granted by the First World, but 30 000 people in other parts of the world died each day from waterborne disease. South Africa could not let its rural population line up with this type of statistic.

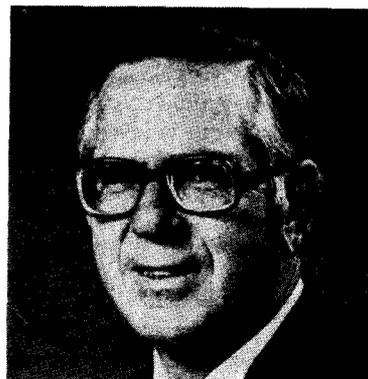
The citation for the award included praise for Dr Laburn's contribution to the profession as well as his technical achievements.

An active member of several engineering societies, his

contributions have included the arrangement of hostel accommodation and other facilities at Soweto for some 70 Black engineering students, liaison with the Defence Force (thus increasing the effective use of engineering manpower in the Citizen Force), and the mobilization of a team of engineers to provide assistance and professional advice to the governments of neighbouring States (*inter alia* for the campus of the University of Bophuthatswana).

The FSPE Award for Services to the Engineering Profession was instituted in 1981 as the premier award to engineers. It was felt not only that the recipients should be engineers of stature and achievement, but also that they should have been prominent in advancing the interest and status of the profession itself.

FSPE is the umbrella body for all professional engineering societies and is primarily concerned with the promotion of the profession as well as the profession's contribution to the well-being of the community.



Dr R. J. Laburn