

crack growth associated with corrosion is less certain, but the evidence now is far better than it was in 1976 and I agree with the report and you that it shows that crack growth rates are — or can be, if the quality of the metal and the water chemistry are closely controlled — much lower than appeared to be the case in 1976”.

The report estimates that a hidden crack in a pressure vessel would have to be at least 75 mm in “height” to initiate crack propagation under normal operating conditions. (“Height” is defined in the report to be the vertical distance from the surface between the nearest and furthest surfaces of the crack.) The best estimates of stress corrosion crack growth indicate that cracks of a starting height of, say, 50 mm, would grow less than 10 mm during service.

The report also describes methods by which cracks can be prevented and monitored during the manufacture of the pressure vessel and during service, and in these respects, says Cottrell, the report goes much farther than its predecessor.

However, in the end Sir Alan remains very cautious. “To summarize”, he writes “provided the recommendations in the report are all accepted and fully applied in practice; and in particular that arrangements are made to keep all parts of the pressure vessel in the ‘upper-shelf’ range of fracture toughness at all times; and arrangements are made to ensure that the vessel is free at all times from cracks, down to a size at which growth becomes insignificant under all conditions; then a PWR pressure vessel subject to all these conditions will have a high integrity and reliability in service”.

**Robert Walgate**

## University redundancies

# Now the crunch

British universities seem well on the way to solving their budgetary problems by persuading tenured academics to opt for early retirement. Hundreds of applications to retire early from members of teaching staffs have already been accepted. But many universities are left with the nagging doubt that the terms agreed with academics willing to go early may not qualify for reimbursement under the scheme the University Grants Committee (UGC) has now made public.

In February the UGC confirmed that it would reimburse in full the cost of payments to staff made redundant because of cuts in the government grant. In the UGC's letter to the universities, the term “redundancy” covered early retirement. For academic staff over 50 the approved terms are those of the Premature Retirement Compensation Scheme (PRCS) of the University Superannuation Scheme (USS) introduced in 1979. An eligible employee receives the USS pension and any accrued benefits plus a compensatory pension and lump sum payment calculated in “Scheme” years. The cost to the university

is the cost of paying into the pension fund this extra benefit.

The scheme allows academic staff below the age of 50 — not covered by PRCS — to receive a deferred pension, a lump sum payment of one month's pay for every year of service, and one month's pay for every year of service in excess of five years or after their 30th birthday, whichever is the greatest. Payments of up to £55,000 plus pension rights could be made to a redundant 50 year old. The scheme is essentially that put forward by the Committee of Vice-Chancellors and Principals except that the pensions of staff aged 50–55 who opt for early retirement will not be index-linked.

Conditions for reimbursement are stringent. The PRCS was not formulated as a redundancy compensation scheme and universities offering enhanced terms will not be repaid. Terms negotiated before 5 February will, however, be supported but only up to the limit of the government-approved scheme. Staff cuts must also be “consistent with academic plans” — UGC may refuse to pay out for redundancies which do not form part of a comprehensive economy drive.

Volunteers for redundancy schemes will have a good chance of being re-engaged for part-time teaching. The UGC will not reimburse for staff who are to be replaced, but recognizes the need to make a gradual adjustment to staff losses. The cost of taking back staff on a part-time basis will be reimbursed only if contracts are signed before the end of the academic year 1984–85 and do not extend beyond three years.

How are the universities coping with the cuts? Salford is hoping to lose 500 staff members (120–145 of them academic) by the end of the academic year 1984–85. Twelve of its 45 professors are to leave by September, and in order to maintain a balance of experience and age distribution the university is keen to get voluntary severances from younger staff.

Leeds was one of the first universities to respond to government cuts by planning staff losses and it is hoping that its enhanced retirement scheme will make it eligible for compensation. Of the 145 applicants, 95 will have been accepted for early retirement. The bulk of staff losses were accepted under the first stage of its economy plan — a 6 per cent cut in expenditure by the end of the academic year 1982–83, but cuts to its budget and the repercussions of the government's overseas students policy have now forced a 10 per cent reduction in expenditure.

At the University of Cambridge there are doubts as to whether the university's plans will be eligible for UGC compensation. Forty academics have responded to an appeal to take early retirement. A scheme providing enhanced compensation was offered to university staff aged 58 to 60 after its approval by the Council of the Senate in February. The university hopes to attract 100 volunteers in a drive to knock £2 million a year from its expenditure by

July 1984. The university has had to offer enhanced terms because, compared with the age of 65 on which the PRCS scheme is based. Cambridge academics have tenure until 67. Eligible applicants will receive a full pension plus a lump sum calculated on the basis of the pension they would have received at normal retirement. The university is pleased with the response so far.

**Jane Wynn**

## UK biotechnology

# A start in sight

The British government has at last fulfilled its promise, made more than a year ago, to establish machinery for coordinating the national effort in biotechnology. Last week, Kenneth Baker, the minister for information technology, announced the setting up of an inter-departmental committee on biotechnology under the chairmanship of Dr Ron Coleman, the recently-appointed Government Chemist.

Dr Coleman's chairmanship may seem rather unusual, chiefly because the Laboratory of the Government Chemist of which he is head, has traditionally followed a fairly narrow remit of providing analytical services to the public sector. But Dr Coleman's desire to broaden its scope has persuaded the Department of Industry to make the laboratory responsible for the department's interest in biotechnology. The new committee's membership includes all those government departments with an interest in biotechnology together with the medical, agricultural and science and engineering research councils, the British Technology Group, the Public Health Laboratory Service and the Centre for Applied Microbiology and Research, Porton Down.

The chief task of the committee, which will have no money of its own, will be to coordinate its members' separate interests. One question close to its heart will be how to transfer the results of biotechnological research into industry. That will involve paying special attention to the role of the Biotechnology Directorate, recently set up by the Science and Engineering Research Council, and the British Technology Group, whose task it is to exploit academic research in industry.

The committee's other main objectives are to foster international collaboration in biotechnology and to look for ways of ensuring the continued existence of culture collections, which at present suffer from being funded from a variety of different sources. The committee, which has before it a study commissioned by the industry department on the organization and funding of culture collections, will be looking for one government body to take over their administration and may recommend changes to the fees now charge for the services provided by the collections.

**Judy Redfearn**