

## SCHEME FUNDING REPORT OF THE ACTUARIAL VALUATION AS AT 5 APRIL 2012 AVX LIMITED PENSION SCHEME

AVX LIMITED PENSIO JULY 2013



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#### Introduction

Section 224(2)(a) of the Pensions Act 2004. It describes the factors considered by the Trustees when carrying out the actuarial valuation as at This report is addressed to the Trustees of the AVX Limited Pension Scheme ("the Trustees") and is provided to meet the requirements of 5 April 2012, and the decisions reached as a result.

The purpose of the actuarial valuation is for the Trustees to determine:

- The expected cost of providing the benefits built up by members at the valuation date (the "liabilities"), and compare this against the funds held by the Scheme (the "assets").
  - An appropriate plan for making up the shortfall if the Scheme has less assets than liabilities.
- The contributions needed to cover the cost of the benefits that active members will build up in the future and other costs incurred in running the Scheme.

| Signature      | Paul Mc Caron | Date of signing | 5 <sup>th</sup> July 2013                        |
|----------------|---------------|-----------------|--|
| Scheme Actuary | Paul McCarron | Qualification   | Fellow of the Institute and Faculty of Actuaries |

Scheme and determining a contribution rate for the future. Mercer does not accept liability to any third party in respect of this report; nor do we accept liability to the Trustees if relevant requirements of Technical Actuarial Standards R: Reporting Actuarial Information, D: Data and M: Modelling, where they apply to this report. These Standards are all the information provided in this report is used for any purpose other than that stated. The report may be disclosed to members and others who have a statutory right to see it. This report has been prepared in accordance with the version of the Pensions Technical Actuarial Standard current at the date this report is signed. It also complies with the issued by the Financial Reporting Council. The calculations referred to in the report use methods and assumptions appropriate for reviewing the financial position of the If the Trustees and Mercer consent, this report may be disclosed to other third parties.

# Key results of the scheme funding assessment

## 2.1. Past service funding position

The table on the right compares the assets and liabilities of the Scheme at 5 April 2012. Figures are also shown for the last valuation as at 5 April 2009 for comparison.

The table shows that at 5 April 2012 there was a shortfall of £22.4m. An alternative way of expressing the position is that the Scheme's assets were sufficient to cover 73% of its liabilities – this percentage is known as the funding level of the Scheme.

At the previous valuation at 5 April 2009 the shortfall was £25.7m, equivalent to a funding level of 60%. The key reasons for the changes between the two valuations are considered in Section 3.2.

|                                    | £0003        | s00          |
|------------------------------------|--------------|--------------|
|                                    | 5 April 2012 | 5 April 2009 |
| Total assets                       | 59,600       | 38,300       |
| Liabilities:                       |              |              |
| Active members                     | 5,600        | 12,400       |
| Deferred pensioners                | 33,500       | 22,600       |
| Pensioners                         | 42,900       | 29,000       |
| Expenses                           |              |              |
| Total liabilities                  | 82,000       | 64,000       |
| Past service surplus / (shortfall) | 22,400       | 25,700       |
| Funding level                      | 73%          | %09          |

calculated using assumptions that the Trustees have determined are appropriate based on the Trustees assessment of the strength of the The liability value at 5 April 2012 shown in the table above is known as the Scheme's "technical provisions". The technical provisions are Employer covenant, having agreed with the Employer over the approach. Throughout this report "Employer" means AVX Limited. The Trustees assessed the strength of the Employer covenant to be strong on Mercer's five point scale. Further details of the way in which the technical provisions are calculated are set out in Appendix A. AVX LIMITED PENSION SCHEME

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## Correcting the shortfall

The Trustees and Employer have agreed a plan to pay off the shortfall of £350K per month until 31 December 2018, which requires the Employer to make the following payments.

## Future service contributions

The valuation also looks at the cost of the benefits that will be built up over assumptions used is provided in Appendix A.

The table on the right gives a breakdown of the future service cost at 5 service rate to calculate the Employer's future service contribution rate. membership, at the rate of either 8% and 13% of Pensionable Salary respectively). Members' contributions are deducted from the future Active members pay contributions to the Scheme as a condition of April 2012 and also shows the cost at 5 April 2009 for comparison. depending on the chosen pension accrual rate (1/80th or 1/60th

In addition to the cost of future benefit accrual the Scheme incurs costs assurance costs. The Recovery Plan contributions of £350K per month and the Employer future service contribution rate above incorporate an related to ongoing administration, levies such as the PPF levy and life allowance for these costs.

| Date  | Payments             |  |                |
|---|----------------------|--|----------------|
| From 5 April 2012 to 31<br>December 2018 (inclusive)              | A lump surr<br>month | A lump sum payment of £350K per<br>month | IK per         |
| the remaining future lifetime of active members. A summary of the | of active me         | mbers. A summ                            | ary of the     |
|   |                      | % pa of Pensionable Pay/Scheme<br>Salary | ble Pay/Scheme |
|   |                      | 5 April 2012                             | 5 April 2009   |
| Cost of pension benefits  |                      | 24.0                                     | 21.6           |
| Cost of insurance premiums  |                      | 3.5                                      | 2.8            |
| Less members' contributions*                                      |                      | (11.6)                                   | (11.8)         |
| Employer future service contribution rate                         | oution rate          | 15.9                                     | 12.6           |

Pay/Scheme Salary up to 31 January 2013 and 15.9% pa of Pensionable The Employer shall pay contributions of 12.6% pa of Pensionable Pay/Scheme Salary from 1 February 2013 onwards \*average members' contributions

## Experience since last valuation

# Summary of key inter-valuation experience

The last actuarial valuation was carried out with an effective date of 5 April 2009. Since the last valuation, a number of active members left the Scheme as part of the redundancy exercise at the Paignton site during the year to 5 April 2010. Of the leavers, some members took early retirement from the Scheme whilst others left the Scheme with preserved/deferred benefits.

The average Pensionable Pay/Scheme Salary increase for the Scheme members who were in service for the whole of the inter-valuation period was 4.3% per annum.

During the inter-valuation period, the investment return on the Scheme's assets has been 13% per annum

valuation period. These figures are from the audited accounts The table summarises the contributions paid over the interand are in line with the rates agreed at the last actuarial

| Date  | Employer<br>contributions | Member contributions* |
|---|---------------------------|-----------------------|
| 5 April 2009 to 5 April 2010                  | £3,012K                   | £157K                 |
| 5 April 2010 to 5 April 2011                  | £4,412K                   | £58K                  |
| 5 April 2011 to 5 April 2012                  | £4,265K                   | £57K                  |
| *excluding Additional Voluntary Contributions |                           |                       |

# 3.2. Reasons for the change in funding position since the last actuarial valuation

As noted in 3.1, the shortfall at the last valuation date was £25.7m. The table below sets out the main reasons for the change in the shortfall between 5 April 2009 and 5 April 2012.

| Shortfall at 5 April 2009 (£k)  | 25,700   |
|---|----------|
| Expected interest on shortfall  | 4,300    |
| Employer contributions in excess of cost of benefits built up over inter-valuation period | (11,100) |
| Higher than expected investment returns   | (10,900) |
| Mortality and early retirement strains  | 1,100    |
| Changes in assumptions  | 12,800   |
| Miscellaneous / membership movements  | 200      |
| Shortfall at 5 April 2012 (£k)  | 22,400   |

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# Projected future funding level and volatility

# 4.1. Projected funding position at next actuarial valuation

As part of this valuation, the Trustees have agreed with the Employer to put in place a recovery plan to pay off the shortfall by 31 December 2018. The next actuarial valuation will take place with an effective date no later than 5 April 2015. If experience up to that date is in line with the assumptions made for this current actuarial valuation and contributions are paid at the agreed rates or amounts, the shortfall at 5 April 2015 would be £12.1m, equivalent to a funding level of 87%.

## 2. Material risks faced by the Scheme

The Scheme is subject to some potentially material risks that are, to an extent, outside the Trustees' control, but could affect the funding level. Any material worsening of the funding level will mean more contributions are needed (either at an increased rate or at the same rate over a longer period) to be able to provide the benefits built up in the Scheme – unless experience acts in other ways to improve the funding level. Examples of such risks, and how the Trustees manage them, are:

- expected and the funding level will be worse than expected. The Trustees regularly monitor the financial strength of the Employer. They If the Employer becomes unable to pay contributions or to make good deficits in the future, the Scheme's assets will be lower than have taken the following actions to mitigate the risk:
- The Trustees regularly monitor the Employer covenant and consider it to be strong. In addition, they have a legally enforceable parent company guarantee from AVX Corporation to AVX Limited in respect of its pension liabilities.
- worse, than expected. The Trustees have a process in place to monitor investment performance quarterly, and they review the Scheme's If future investment returns on assets are lower than assumed in the valuation, the Scheme's assets will be lower, and the funding level investment strategy alongside each actuarial valuation. They have taken the following actions to mitigate (but not fully remove) the risk:

- Their investment strategy takes the make up of the Scheme's membership into account and this reduces the effect of market movements on funding levels.
- technical provisions and on the wind-up basis (see section 5) will be worse than expected. The Trustees have taken the following actions to If gilt yields change such that the liability values increase by more (or decrease by less) than the assets, the funding level against the mitigate (but not fully remove) the risk:
- A proportion of the Scheme's assets is invested in gilts, which will help to offset some of the risk associated with movements in gilt
- If improvements in life expectancy are greater than assumed, the cost of benefits will increase because members are living longer than expected. This will mean the funding level will be worse than expected. The Trustees regularly review the Scheme's experience and ensure that the assumptions they make about members' life expectancy take the most recent information available into account.
- If members make decisions about their options which increase the Scheme's liabilities, the funding level will be worse than expected. An example would be if members do not commute the maximum possible pension for cash, as is being assumed. The Trustees review the Scheme's experience at each valuation to ensure that their treatment of member options remains appropriate.

# Sensitivity of funding position to changes in key assumptions

differs from the assumptions the Trustees have agreed with the Employer, then the projected future funding level will be different from the level The value placed on the Scheme's liabilities is critically dependent on the assumptions used to carry out the calculations. If future experience described above in 4.1.

| Date   | Shortfall at 5 April 2012<br>(£22,400k) |
|--|---|
| Pre-retirement investment return is 0.25% lower than assumed   | 23,800                                  |
| Pre and post-retirement investment return is 0.25% lower than assumed                                  | 26,800                                  |
| Pre and post-retirement investment return is 0.25% lower and members live one year longer than assumed | 29,400                                  |
| Equity markets fall by 20%   | 27,800                                  |

To illustrate how sensitive the funding level is to experience being different from assumed, the table opposite shows how the valuation results at 5 April 2012 would have differed given small changes in the key assumptions.

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### Wind-up position

If the Employer were to become insolvent or decide not to support the Scheme, the Trustees could decide to wind up the Scheme and secure the benefits built up with an insurance company. Insurance companies use different assumptions to the Trustees technical provisions when calculating the value of the Scheme's liabilities and the price they would charge to provide the benefits

The table on the right shows an estimate of the funding level of the Scheme at 5 April 2012 assuming all benefits were bought out with an insurer. The wind-up position at 5 April 2009 is also shown for comparison. The wind-up position is shown for information only, and does not mean that the Trustees or Employer are considering winding up the Scheme.

As the table shows, the Scheme would have had a shortfall of £50.8m if had been wound up at 5 April 2012. This means that, on average, members could only expect to receive 54% of the benefits earned to date (although the percentage coverage would differ between members depending on age and when their benefit was earned).

|                                    | 003                       | £0003        |
|------------------------------------|---------------------------|--------------|
|                                    | 5 April 2012 5 April 2009 | 5 April 2009 |
| Total assets                       | 29,600                    | 38,300       |
| Liabilities:                       |                           |              |
| Active members                     | 7,200                     | 15,300       |
| Deferred pensioners                | 55,800                    | 35,900       |
| Pensioners                         | 44,700                    | 27,600       |
| Expenses                           | 2,700                     | 1,600        |
| Total liabilities                  | 110,400                   | 80,400       |
| Past service surplus / (shortfall) | (50,800)                  | (42,100)     |
| Funding level                      | 54%                       | 48%          |

In practice, if the Scheme was wound up due to the Employer becoming

needed to buy that compensation from an insurance company. If this was the case, members could receive a higher proportion of the benefits they have earned to date. Further details of the compensation payable from the PPF are given in Appendix E. insolvent, the members may be eligible for compensation from the Pension Protection Fund (PPF) if the Scheme's assets were less than

If experience is in line with the assumptions underpinning the agreed recovery plan, and contributions are paid at the agreed rates or amounts, the shortfall at 5 April 2015 on a wind-up basis would be £33.2m, equivalent to a funding level of 71%.

### **APPENDIX A**

#### Assumptions

## A.1. How the benefits are valued

In order to calculate the liabilities, the Trustees need to make assumptions about various factors that affect the cost of the benefits provided by the Scheme – for example, how long members will live, or the future level of inflation. The table below explains the key assumptions being made in the valuation.

| Assumption                | Why it is important and how it impacts on the liabilities   |
|---------------------------|---|
| Discount rate             | The majority of benefits in a pension scheme are paid many years in the future. In the period before the benefits are paid, the Trustees invest the funds held by the scheme with the aim of achieving a return on those funds. When calculating how much money is needed now to make these benefit payments, it is appropriate to make allowance for the investment return that is expected to be earned on these funds. This is known as "discounting". |
|                           | The higher the investment return achieved, the less money needs to be set aside now to pay for benefits. The calculation reflects this by placing a lower value on the liabilities if the "discount rate" is higher.  |
|                           | The Trustees' investment policy is to invest the funds held in respect of retired members in lower risk assets (which therefore have a lower expected return) than those held for members who are still some way from retirement. Therefore, the discount rate assumption is split into pre and post-retirement rates (with pre-retirement being higher).   |
| Inflation                 | Pensions in payment typically increase in line with price inflation, subject to a cap. Salary growth is also normally linked to price inflation. A higher inflation assumption will, all other things being equal, lead to a higher value being placed on the liabilities.  |
| Pensionable Salary growth | Pensions for active members are based on their salaries immediately before retirement, so it is necessary to make an assumption about future Pensionable Salary growth. The higher this assumption, the higher the value placed on the liabilities for active members.  |
| Life expectancy           | Pensions are paid while the member (and potentially their spouse or partner) is alive. The longer people live, the greater is the cost of providing a pension. Allowing for longer life expectancy therefore increases the liabilities.   |

The liabilities of the Scheme are calculated projecting forward all of the future benefit cash flows and discounting them back to the effective date of the valuation, using these assumptions. For example, the liability for a single pensioner is calculated by estimating the amount of each pension payment they will receive in the future, multiplying by the probability that the member will still be alive by the date of each payment, and then discounting each payment back to the effective date of the valuation; and then summing up all of these discounted amounts. The liabilities for the whole Scheme are calculated by summing the liabilities for each of the individual members

# A.2. Assumptions used to calculate technical provisions

The tables below summarise the key assumptions used in the calculation of the technical provisions and those used for the 5 April 2009 actuarial valuation.

| Financial assumptions         | 5 April 2012 | 5 April 2009 |
|-------------------------------|--------------|--------------|
| Discount rate:                |              |              |
| Pre-retirement                | 5.35% p.a.   | 6.25% p.a.   |
| Post-retirement               | 3.50% p.a.   | 4.25% p.a.   |
| Price inflation (RPI)         | 3.35% p.a.   | 3.30% p.a.   |
| Price inflation (CPI)         | 2.85% p.a.   | n/a          |
| Salary increases              | 4.35% p.a.   | 4.30% p.a.   |
| Pension increases in payment: |              |              |
| Inflation capped at 3% p.a.   | 2.85% p.a.   | 2.90% p.a.   |
| Inflation capped at 5% p.a.   | 3.25% p.a.   | 3.20% p.a.   |
| Inflation capped at 2.5% p.a. | 2.35% p.a.   | 2.40% p.a.   |
|                               |              |              |

| Demographic assumptions          | 5 April 2012  | 5 April 2009   |
|----------------------------------|---|--|
| Retirement                       | All at age 65   | All at age 65  |
| Mortality – base table           | S1NA year of birth tables   | S1NA year of birth tables  |
| Mortality – future improvements: |   |  |
| Males                            | CMI 2011 projections with 1.25% pa future long-<br>term improvements rate | Medium cohort projections with 1.0% pa minimum improvements starting from 2003 |
| Females                          | CMI 2011 projections with 1.25% pa future long-<br>term improvements rate | Medium cohort projections with 1.0% pa minimum improvements starting from 2003 |
| Commutation                      | 25% of pension at retirement  | 25% of pension at retirement   |

The mortality assumptions used for the 5 April 2012 valuation result in the following life expectancies. This information may be useful to the Trustees when completing the annual scheme return.

|  | Cohort | Period |
|--|--------|--------|
| Life expectancy for a male aged 65 now         | 87.4   | 85.4   |
| Life expectancy at 65 for a male aged 45 now   | 89.1   | n/a    |
| Life expectancy for a female aged 65 now       | 89.8   | 87.6   |
| Life expectancy at 65 for a female aged 45 now | 91.8   | n/a    |
|  |        |        |

the assumptions allow for future salary increases for active members. The Trustees' stated funding objective (which has also been agreed setting the assumptions, the Trustees have assumed that the Scheme is ongoing (it is not in the process of being wound up). In particular, These assumptions have been selected by the Trustees to reflect their funding objective, after reaching agreement with the Employer. In with the Employer) is to reach a position where the assets are sufficient to fully cover the technical provisions by 31 December 2018.

# A.3. Assumptions used to calculate future service cost

The assumptions used to calculate the cost of future benefit accrual are the same as those used to calculate the technical provisions.

# A.4. Assumptions used to calculate the wind-up position

The wind-up position looks at the Scheme's funding on the assumption that it had been discontinued on the valuation date and the benefits active members are entitled to benefits on the basis they had left service on the valuation date. There is no allowance for any discretionary bought out with an insurance company. In doing this, it is assumed that no further benefits accrue, no further contributions are paid and benefits being paid in the future.

Consideration has been given to the market terms for the financial instruments in which insurance companies would be expected to invest. statutory reserving requirements. The results are, therefore, only a guide to the wind-up position and should not be taken as a quotation. Market changes, both in interest rates and in supply and demand for buyout business, mean that if a buyout ultimately proceeds, actual affecting this market. Detailed analysis of the reserves that would need to be held by an insurance company has not been carried out. An approximate allowance has been made for the reserves an insurance company would maintain to cover the risks involved and the The wind-up position has been estimated using Mercer's experience of recent buyout quotations and our understanding of the factors quotations may differ.

The wind-up funding level is only an estimate since it is not based on an actual quotation. The true position could only be established by completing a buyout. The tables below set out the assumptions used to assess the funding level in the event of the Scheme being wound up. The assumptions used at 5 April 2009 are also shown for comparison.

| Financial assumptions            | 5 April 2012 | 5 April 2009 |
|----------------------------------|--------------|--------------|
| Discount rate:                   |              |              |
| Non-pensioners – pre-retirement  | 3.70% p.a.   | 4.25% p.a    |
| Non-pensioners – post-retirement | 3.50% p.a.   | 4.50% p.a.   |
| Pensioners                       | 3.40% p.a.   | 4.50% p.a.   |

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| Financial assumptions            | 5 April 2012  | 5 April 2009   |
|----------------------------------|---|--|
| Pension increases:               |   |  |
| Inflation capped at 3% p.a.      | 2.80% p.a.  | 2.70% p.a.   |
| Inflation capped at 5% p.a.      | 4.00% p.a.  | 3.60% p.a.   |
| Inflation capped at 2.5% p.a.    | 2.40% p.a.  | 2.40% p.a.   |
| Expense allowance                | 2% of liabilities plus 1% of assets   | 2% of liabilities  |
|                                  |   |  |
| Demographic assumptions          | 5 April 2012  | 5 April 2009   |
| Retirement                       | All at age 65   | All at age 65  |
| Mortality – base table           | S1NA tables using year of birth and adjusted by -1 year to reflect the membership profile of the Scheme | S1NA tables using year of birth  |
| Mortality – future improvements: | CMI 2011 projections with 2% pa and 1.5% pa minimum improvement for males and females respectively      | Medium cohort projections with 1.5% pa<br>minimum improvement starting from 2003 |
| Commutation                      | No allowance  | No allowance   |
| Proportion married               | 90% males, 75% females  | 90% males, 75% females   |

As the Trustees' current investment policy includes investment in different assets than would typically be held by an insurer, the wind-up position on a given date may be significantly different from the position estimated at the valuation date.

Husbands 3 years older than wives

Spouse's age

Husbands 3 years older than wives

### APPENDIX B

## Summary membership data

The membership data is summarised in the table, with figures at the previous valuation shown for comparison.

Data in relation to members of the Scheme were supplied by the Trustees, via the Scheme's administrator. The accuracy of the data provided has been relied on. While reasonableness checks on the data have been carried out, they do not guarantee the completeness or the accuracy of the data. Consequently Mercer does not accept any liability in respect of its advice where it has relied on data that is incomplete or inaccurate.

|   | 5 April 2012          | 5 April 2009 |
|---|-----------------------|--------------|
| Active members  | 0<br>0<br>0<br>0<br>0 |              |
| Number  | 10                    | 92           |
| Total Pensionable Salaries (£000s p.a.)                         | 531                   | 2,193        |
| Average Pensionable Salary (£000s p.a.)                         | 53                    | 24           |
| Average age (salary and service weighted)                       | 57.8                  | 52.8         |
| Average past service  | 32.1                  | 22.3         |
| Deferred pensioners   |                       |              |
| Number  | 465                   | 472          |
| Total deferred pensions revalued to valuation date (£000s p.a.) | 1,937                 | 1,684        |
| Average deferred pension (£ p.a.)                               | 4,165                 | 3,567        |
| Average age (pension weighted)                                  | 49.6                  | 48.1         |
| Pensioners  |                       |              |
| Number  | 435                   | 364          |
| Total pensions payable (£000s p.a.)                             | 2,133                 | 1,682        |
| Average pension (£ p.a.)  | 4,903                 | 4,620        |
| Average age (pension weighted)                                  | 68.3                  | 67.1         |

### **APPENDIX C**

#### Assets

The market value of the Scheme's assets was £59.6m on the valuation date.

The Trustees' investment strategy is to proportion the Scheme's assets by asset class as shown in the table below. The actual distribution of assets will vary over time due to changes in financial markets. The table also shows the distribution of assets at the valuation date.

The Trustees also hold additional voluntary contributions (AVCs), which are separately invested. These assets have been excluded from the market value shown as they exactly match the value of the benefits they cover.

The details of the assets at the valuation date and the financial transactions during the inter-valuation period have been obtained from the audited accounts for the Scheme.

|                                  | Investment<br>strategy | Actual market<br>at 5 Ap | Actual market value of assets at 5 April 2012 |
|----------------------------------|------------------------|--------------------------|---|
|                                  | %                      | £000s                    | %   |
| Bonds:                           | 55.0                   |                          | 54.5  |
| Fixed gilts                      |                        | 8,085                    | 13.6  |
| Index-linked gilts               |                        | 8,165                    | 13.7  |
| Other UK bonds                   |                        | 16,224                   | 27.2  |
| Overseas bonds                   |                        |                          |   |
| Equities:                        | 45.0                   |                          | 45.5  |
| UK                               |                        | 10,871                   | 18.2  |
| Overseas                         |                        | 15,820                   | 26.5  |
| Net current assets/(liabilities) |                        | 443                      | 0.8   |
| Total                            | 100.0                  | 59,608                   | 100.0   |

### APPENDIX D

### Benefit summary

The benefits valued are as set out in the Scheme Trust Deed and Rules, including all Deeds of Amendments and Supplementary Deeds. This broadly reflects the benefits communicated to members via membership booklets, announcements and correspondence outlining special terms where applicable.

#### Paignton Section

The benefits that applied to members in service at the valuation date are described below.

#### **Definitions**

Normal Pension Date: 65th birthday.

The number of continuous years and months of service from the date of joining the Scheme, rounded to the Pensionable Service:

nearest month.

Pensionable Pay: Basic annual shift salary.

Final Pensionable Pay: The higher of:

- i. The yearly average of Pensionable Pay over the two years prior to normal retirement age or date of leaving service if earlier, and
- ii. The yearly average of Pensionable Pay in the best two consecutive years in the last 10 years.

#### **Eligibility**

The Scheme has been closed to new entrants since April 1997.

## **Benefits at Normal Pension Date**

On retirement at Normal Pension Date, a member will receive an annual pension of 1/60th of Final Pensionable Pay for each year of Pensionable Service, with completed months of Pensionable Service counted proportionately.

From 1 July 2007, members have a choice between a 1/60th and a 1/80th accrual rate,

#### Early/Late retirement

A member may retire before or after his Normal Pension Date, with a correspondingly reduced or increased pension respectively. On early retirement at Company request, the accrued pension is reduced by 3% for each year where retirement precedes age 65.

#### Retirement lump sum

A member may exchange part of his pension on retirement for a lump sum of up to the maximum allowable under the post A-Day rules, ie, 25% of the value of their total benefit on retirement.

The rate at which pensions can be exchanged for cash is 9 for both males and females at 65 for each £1 of annual pension given up.

## Lump sum on Death in Service

On death in service prior to Normal Pension Date the following benefits are payable:

- a) a lump sum equal to four times Pensionable Pay at the date of death.
- b) a refund of the member's contributions.

- a spouse's pension equal to 30% of Pensionable Pay at date of death, less, where applicable, one half of any personal state basic pension to which the spouse would be entitled. This pension is also payable to common law spouses at the Trustees' discretion. <sub>Ω</sub>
- d) there are also provisions for children's pensions.

#### **Death After Retirement**

On death after retirement the following benefits are payable:

- a) a lump sum equal to four times monthly pension after any cash commutation.
- a spouse's pension (including common law spouse's) equal to 50% of the member's pension before any cash commutation. (a

## Benefits available on leaving service

The leaving service preserved pension will be calculated in the same way as normal retirement pension, but will be based on Pensionable Service to and Final Pensionable Pay at the date of leaving. <u>a</u>

The Guaranteed Minimum Pension included in the above will be revalued in accordance with statutory requirements to State Pension

complete year between the date of leaving and Normal Pension Date. The exception to this is post 6 April 2009 benefit accrual, The preserved pension in excess of GMP will be increased at the lower of the rise in the Retail Prices Index or 5% p.a. for each which increases in line with the Consumer Prices Index capped at 2.5% pa.

- A spouse's death after retirement pension will be payable on a basis similar to that described previously. <u>a</u>
- On death before retirement a spouse's pension equal to one half of the member's preserved pension, including any increases made to the date of the member's death, is payable. (C)
- As an alternative to a deferred pension, members can request the Trustees to make a transfer of the value of the deferred benefits to another registered Scheme or suitable insurance policy. ਰ

#### Member's contributions

With effect from 1 July 2007, members have a choice between an 8% or a 13% contribution rate, depending upon their future pension accrual rate reducing to 1/80<sup>th</sup> or the member electing to retain it at 1/60<sup>th</sup>.

#### Pension increases

Pensions accrued prior to 6 April 1997, excluding GMP accrued prior to 6 April 1988, are guaranteed to increase at 3% per annum compound or the increase in the retail prices index if less. GMPs increase in payment at the statutory rate. Pensions accruing after 5 April 1997 increase in payment at the rate of 5% per annum or the increase in the retail prices index, if less.

Pensions accruing after 5 April 2006 increase in payment at the rate of 2.5% p.a. or the increase in the Retail Prices Index (RPI) if less.

#### Varelco Section

The benefits that applied to active members at the valuation date are described below.

#### **Definitions**

Normal Pension Date: 65<sup>th</sup> birthday.

The number of complete years and months of service as a contributing member of this Scheme, Scheme Service:

or of the Cambridge Electronics Industries Pension Fund before 1 April 1991.

Annual rate of Basic Salary at 6 April each year less 1.2 times the Basic State Pension. Scheme Salary:

Scheme Salary on 6 April prior to retirement, leaving the Scheme or death. Final Scheme Salary:

#### Eligibility

The Scheme has been closed to new entrants since April 1997.

## **Benefits at Normal Pension Date**

On retirement at Normal Pension Date, a member receives an annual pension amounting to 1/60th of Final Scheme Salary for each year of Scheme Service, and in proportion for each month of Scheme Service up to a maximum of 40 years.

From 1 July 2007, members have a choice between a 1/60th and 1/80th accrual rate.

#### Early retirement

A member may retire early with the Employer's consent between ages 50 and 65, or at any time on account of ill health.

retirement. The pension will then be reduced by 4% for each year by which the age at retirement precedes 60. Pension for early retirement The early retirement pension will be calculated as for normal retirement, but based on Pensionable Service up to the date of early from age 60 onwards will not be reduced for early retirement.

If early retirement is due to ill health, the pension is calculated using Pensionable Service completed to the date of early retirement plus, at the Trustees' discretion for cases of serious ill-health, future service to Normal Pension Date. There is no reduction for early payment.

#### Late retirement

With the Company's consent a member may remain in service after Normal Pension Date, with the pension payable on late retirement being increased to reflect the shorter anticipated period of payment.

#### Retirement lump sum

A member may exchange part of his pension on retirement for a lump sum of up to the maximum allowable under the post A-Day rules, ie, 25% of the value of their total benefits on retirement.

The amount by which the pension is reduced will vary depending on age at retirement.

## Benefits payable on death after retirement

On death after retirement, the following benefits are payable:

- a) if death occurs within five years after retirement, the pension continues to be paid to the member's widow(er) or dependants for the remainder of the five year period.
- b) a spouse's pension of 55% of the member's pension before any commutation under section Retirement Lump Sum.
- c) Children's pensions of 20% of the spouse's pension for a maximum of 4 children. These are doubled if no spouse's pension is payable.

## Benefits payable on death in service

On death in service, the following benefits are payable:

- a) a lump sum of 3 x Basic Annual Salary at date of death
- a spouse's pension of 55% of the member's pension calculated as at the date of death 9
- Children's pensions of 20% of the spouse's pension for a maximum of 4 children. These are doubled if no spouse's pension is  $\widehat{\mathbf{o}}$
- d) A refund of the member's own contributions if there is no spouse or dependants.

## Benefits available on leaving service

Members will be entitled to a preserved pension payable from Normal Pension Date. The preserved pension will be calculated in the same way as a normal retirement pension, but will be based on Scheme Service to and Final Scheme Salary at the date of leaving. a

- p.a.). The balance of the preserved pension relating to Pensionable Service up to 6 April 2009 will be increased at the lower of the That part of the deferred pension representing the GMP is revalued to State Pension Age at the statutory "fixed" rate (currently 4% rise in the Retail Prices Index or 5% p.a. for each complete year between the date of leaving 2011. The increases are in line with the Consumer Prices Index capped at 5% for each year from 2011 to Normal Pension Date. That part of the deferred pension elating to service after 6 April 2009 increases to NPD in line with the CPI capped at 2.5% pa. Q
- On death of a married member before retirement, a spouse's pension is payable equal to 55% of the member's deferred pension revalued to the date of death. (C)
- As an alternative to a deferred pension, members can request the Trustees to make a transfer of the value of the deferred benefits to another approved Scheme or suitable insurance policy. ਰ

#### Member's contributions

With effect from 1 July 2007, members have a choice between an 8% or a 13% contribution rate, depending on their pension accrual rate reducing to 1/80ths or the member electing to retain it at 1/60ths

#### Pension increases

over the previous year, if this is less. Pensions accruing after 5 April 2006 increase in payment at the rate of 2.5% p.a. or the increase in Pensions in payment accruing before 5 April 2006 and in excess of any GMP will be increased annually by 5% or the change in the RPI the Retail Price Index, if less. In addition, the Trustees have the power to pay discretionary increases. In particular, when inflation is in excess of 5% p.a or 2.5% p.a. the broad objective is to use this discretionary power to match 75% of the rise in the RPI. However, the rustees will take due account of the Scheme's financial position when considering this.

The GMP is increased in payment as required by the Pension Scheme Act 1993.

UK and European law requires pension schemes to provide equal benefits to men and women in respect of service after 17 May 1990 (the valuation makes no allowance for equalisation of these inequalities. It is consequently possible that additional funding will be required for equalisation once the law has been clarified. It is recommended that the Trustees seek further professional advice if they are concerned Minimum Pensions (GMPs) and, if it does, what adjustments have to be made to scheme benefits to correct these inequalities. The date of the "Barber" judgement). There is still no general agreement on whether this applies to inequalities caused by Guaranteed about this issue.

The benefits that will emerge from AVCs paid by members, and the pensions being paid by insurers have been excluded from the valuation, as have the corresponding assets, since the value of these liabilities is exactly matched by these assets.

### APPENDIX E

## Summary of PPF benefits

Normally, a scheme's assets and liabilities would only transfer to the PPF if the assets were insufficient to buy out the benefits provided by the PPF. The compensation that the PPF could provide would be broadly 100% of the pension in payment for members over pension age If the Scheme winds up when the Employer is insolvent, its members may be eligible for compensation from the Pension Protection Fund. and 90% of a capped amount of the pension built up for members under pension age. Under the current PPF provisions:

- Pensions in payment will be increased annually, at the lower of 2.5% and the change in the Consumer Price Index (CPI), in respect of service after 5 April 1997 only. Pensions accrued before April 1997 are not increased.
- Benefits in deferment are revalued in line with the scheme's rules for any period between the member's exit and the scheme's entry into the PPF. Revaluation between the entry date and the member's normal pension age will be in line with increases in the CPI subject to a maximum of 5% per annum compounded over the revaluation period in respect of service pre-6 April 2009, and CPI subject to a maximum of 2.5% per annum for service post-5 April 2009.
- Where scheme rules do not provide for revaluation in respect of a period of service, then no revaluation will be provided under the PPF in respect of that service.
- Spouses' pensions will be 50% of members' PPF compensation.
- The pensions of members aged less than their scheme's normal pension age when the scheme enters the PPF will be capped. The cap depends on the member's age when the pension is paid and is increased from time to time. For example, in 2013/14 the cap is £34,867 at age 65 – so, the maximum amount of compensation for members retiring at their normal pension age of 65 will be 90% of this, £31,380 per annum.

### APPENDIX F

## Section 179 certificate

This appendix includes a copy of the section 179 valuation certificate which sets out the information required to complete the section 179 section of the scheme return. The certificate is in the format required by the PPF; the terminology used in the certificate reflects the wording used in the section 179 valuation guidance.

In summary, the results of the valuation disclose a deficit of £18.7m, equivalent to a funding level of 76% on the PPF funding basis.

| Scheme / Section details                          | 100   | s179 valuation                              |              |
|---|---|---|--------------|
| Full name of scheme:                              | AVX Limited Pension Scheme  | Effective date of this valuation:           | 5 April 2012 |
| Name of section of applicable:                    | n/a   | Guidance and assumptions                    |              |
| Pension Scheme Registration Number                | 10023435  | s179 guidance used for this valuation       | G5           |
| Address of scheme (or section, where appropriate) | Mercer Limited<br>9th Floor, Bedford House<br>16-22 Bedford Street<br>Belfast BT2 7DX | s179 assumptions used for this<br>valuation | A6           |

ACTUARIAL VALUATION AS AT 5 APRIL 2012 SCHEME FUNDING REPORT

AVX LIMITED PENSION SCHEME

| Assets  |                          |              |                    | Liabilities   |                           |              |                    |
|---|--------------------------|--------------|--------------------|---|---------------------------|--------------|--------------------|
| Total assets (this figure should not be reduced by the  | be reduced by the        | £59,608,289  |                    | Please show liabilities for:  | for:                      |              |                    |
| amount of any external liabilities and should include   | nd should <u>include</u> |              |                    | Active member   | Active members (excluding | £3,657,493   |                    |
| the insurance policies referred to below)   | oelow)                   |              |                    | (sesuedxe   |                           |              |                    |
|   |                          |              |                    | Deferred members  | nbers                     | £39,014,844  | 4                  |
| Date of relevant accounts (dd/mm/yyyy)  | (yyyy)                   | 5 April 2012 |                    | (excluding expenses)  | penses)                   |              |                    |
|   |                          |              |                    | Pensioner members   | mbers                     | £33,214,212  | 2                  |
| Percentage of the assets shown above held in the  | bove held in the         |              | •                  | (excluding expenses)  | penses)                   |              |                    |
| form of a contract of insurance where this is not included in the ascet value recorded in the releasent | ere this is <u>not</u>   | %0           |                    | Estimated expenses of winding up  | winding up                | £2,017,731   |                    |
| ווכוממפת ווו ווופ מספר אמותפ ופכסותפ  |                          | 20           |                    |   |                           |              |                    |
| scheme accounts.  |                          |              |                    | Estimated expense of benefit  | benefit                   | £391,050     |                    |
|   |                          |              |                    | installation /payment   |                           |              |                    |
|   |                          |              |                    | External liabilities  |                           | 03           |                    |
|   |                          |              | ·                  |   |                           |              | •                  |
|   |                          |              |                    | l otal protected liabilities  | S                         | £/8,295,330  | Q                  |
| Please provide the percentage of the liabilities shown  | of the liabilities show  |              | show the proportio | Please show the proportion of liabilities which relate to each period of service for: | te to each perio          | d of service | for:               |
| above that are fully matched by insured annuity contracts for:  | / Insured annuity con    | ıtracts      |                    | Before 6 April 1997   | 6 April 1997 to 5 April   |              | After 5 April 2009 |
|   |                          |              |                    |   | 2009 (inclusive)          |              |                    |
| Active members  | %0                       | Active n     | Active members     | 45.2%   | 45.2%                     |              | %9.6               |
| Deferred members  | %0                       | Deferred     | Deferred members   | 48.3%   | 51.3%                     |              | 0.4%               |
| Pensioner members   | %0                       | Pension      | Pensioner members  | 68.0%   | 32.0%                     |              | n/a                |
|   |                          |              |                    |   | (all post 6 April 1997)   | 1997)        |                    |
|   |                          |              |                    |   |                           |              |                    |

## Number of members and average ages

For each member type. Please show the number of members and the average age (weighted by the protected liabilities) as at the effective date of this valuation. Average ages should be rounded to the nearest whole year.

|                   | Number | Average age |
|-------------------|--------|-------------|
| Active members    | 10     | 26          |
| Deferred members  | 465    | 49          |
| Pensioner members | 435    | 29          |
|                   |        |             |

guidance and assumptions issued by the Board of the Pension Protection Fund. I also certify that the calculated value of the protected liabilities is, in my opinion, unlikely I certify that this valuation has been carried out in accordance with the Pension Protection Fund (Valuation) Regulations 2005 and with the appropriate section 179 to have been understated.

| Fellow of the Institute and Faculty of Actuaries | Mercer Limited |               |
|--|----------------|---------------|
| Qualification                                    | Employer       |               |
| Paul Me Carran                                   | Paul McCarron  | 5th July 2013 |
| Signature  | Name           | Date          |

valuation report. The details contained in this certificate should be separately submitted to the PPF as part of the annual scheme return via the Pension Regulator's As required, under Part 9 of the Guidance on undertaking a section 179 valuation, the section 179 certificate should form part of the scheme actuary's section 179 system "Exchange" within 15 months of the effective date. This certificate should not be sent directly to the Pension Protection Fund.

The key assumptions used to calculate the section 179 liabilities are set out in the table below.

| Key assumptions  |   |
|--|---|
| Investment return:   |   |
| <ul> <li>In deferment (allowing for revaluation in deferment):<br/>pre 5 April 2009 benefits</li> </ul>  | -0.32%  |
| <ul> <li>In deferment (allowing for revaluation in deferment):<br/>post 5 April 2009 benefits</li> </ul> | 0.49%   |
| <ul> <li>For pensions in payment (flat):</li> </ul>  | 3.12%   |
| <ul> <li>For pensions in payment (increasing):</li> </ul>  | 0.62%   |
| Mortality  | Males: PCMA00 mc for year of birth, with a 1.5% p.a. floor applying from year 2000                          |
|  | Females: PCFA00 mc for year of birth, with a 1% p.a. floor applying from year 2000                          |
| Proportions "married"  | 85% (males) / 75% (females) for pensioners 85% (males) / 75% (females) for nonpensioners                    |
| Age differences between member and dependant   | Female 3 years younger than male  |
| Children's pensions  | Children's pensions already in payment assumed to stop at 18 (or 23 if already over 17)  No other allowance |

| Key assumptions              |   |
|------------------------------|---|
| Expenses:                    |   |
| Wind-up (% of liabilities)   | 3% up to £50m; plus<br>2% between £50m and £100m; plus<br>1% over £100m |
| Benefit installation/payment | per non-pensioner member: £500  |
|                              | per pensioner (dependent on age):                                       |
|                              | Under 60 £450   |
|                              | 60 to 70 £400   |
|                              | 70 to 80 £300   |
|                              | _   |

The benefits valued for the section 179 valuation are in line with the benefits of the Scheme except as follows:

- The provisions outlined in Appendix E (Summary of PPF benefits) are assumed to override the Scheme's own benefit provisions for the purpose of the section 179 valuation only.
  - Revaluation of benefits in deferment after the effective date of the valuation has been ignored as revaluation is allowed for implicitly by the yield in the section 179 assumptions which takes account of increases between the valuation date and NPA.
    - Money purchase benefits have been ignored.
- Normal pension age is the normal retirement date under the scheme rules or such earlier age specified where the only condition for the member to retire without actuarial reduction is the attainment of a particular age or length of service. It is possible for different tranches of benefits to have different normal pension ages

The data used for the section 179 valuation is as set out in Appendix B and the assets used are as set out in Appendix C.

### APPENDIX G

## Certificate of technical provisions

Name of the Scheme

AVX Limited Pension Scheme

## Calculation of technical provisions

I certify that, in my opinion, the calculation of the Scheme's technical provisions as at 5 April 2012 is made in accordance with regulations under section 222 of the Pensions Act 2004. The calculation uses a method and assumptions determined by the trustees of the Scheme and set out in the statement of funding principles dated April 2013.

Paul Incy

Paul McCarron

Signature

Name

Date of signing

Name of employer

Address

Qualification

Mercer Limited

5th July 2013

Mercer Limited 9th Floor, Bedford House 16-22 Bedford Street

Belfast BT2 7DX

Fellow of the Institute and Faculty of Actuaries



Mercer Limited 9th Floor, Bedford House 16-22 Bedford Street Belfast BT2 7DX







