## Memo

March 30, 2005
To: Trustees - Central PA Teamsters DB Plan
From: William P. Bishop, FCA

## Subject: Updated Rule of 82-85 Combined Minimum Monthly Benefit Analysis

## Background

The Plan currently provides a Combined Minimum Monthly Benefit (CMMB) of \$3,100 for participants who retire from covered employment at age 57 or later with 25 or more years of Benefit Service. This memo analyzes the extension of the CMMB, on a revenue-neutral basis, to participants who retire prior to meeting the $57 \& 25$ requirement, but after meeting an alternative age + service threshold (e.g. a "Rule of 82 ", where age plus service must be at least 82 years). The CMMB benefit for participants who meet the current 57 \& 25 eligibility requirement is unchanged at $\$ 3,100$.

The table below shows the age/service combinations needed to meet four eligibility conditions: Rule of 82 , Rule of 83 , Rule of 84 , and Rule of 85 . Notice that a participant who meets the Rule of 82 at age 57 or higher is already eligible for the current CMMB.

| Age | Years of Benefit Service |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Rule of 82 | Rule of 83 | Rule of 84 | Rule of 85 |
| 50 | 32 | 33 | 34 | 35 |
| 51 | 31 | 32 | 33 | 34 |
| 52 | 30 | 31 | 32 | 33 |
| 53 | 29 | 30 | 31 | 32 |
| 54 | 28 | 29 | 30 | 31 |
| 55 | 27 | 28 | 29 | 30 |
| 56 | 26 | 27 | 28 | 29 |

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## Methodology

The baseline for this study was the pro-forma January 1, 2005 valuation data. This represents a projection of the January 1, 2004 valuation data, with the following factors taken into account:

- Actual 2004 RIP returns
- Actual 2004 retirements
- Red Star withdrawal

We assume the Rule of $82-85$ benefits to be effective January 1, 2005. Liabilities were calculated as of January 1, 2005 using our ongoing valuation assumptions (including an annual RIP rate of return assumption of $7.5 \%$ ), with the exception of the retirement rates.

Currently, no retirements are assumed prior to age 57 with at least 25 years of service. In the valuation of Rule of $82-85$ benefits, rates of retirement were added for these age/service combinations to reflect the enhanced benefits available at those ages. The retirement rate adjustments are shown below:

## RULE OF 82

|  |  | YEARS OF SERVICE |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35+ |
| $\underset{~ W}{\text { U }}$ | 50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.10 | 0.10 |
|  | 51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.05 | 0.05 | 0.05 |
|  | 52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.05 | 0.05 | 0.05 | 0.05 |
|  | 53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.15 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
|  | 54 | 0.00 | 0.00 | 0.00 | 0.15 | 0.15 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
|  | 55 | 0.00 | 0.00 | 0.20 | 0.20 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
|  | 56 | 0.00 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |

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## RULE OF 83

|  |  | YEARS OF SERVICE |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35+ |
| $\underset{~ W}{\text { U }}$ | 50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.10 |
|  | 51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.05 | 0.05 |
|  | 52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.05 | 0.05 | 0.05 |
|  | 53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.15 | 0.10 | 0.10 | 0.10 | 0.10 |
|  | 54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.15 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
|  | 55 | 0.00 | 0.00 | 0.00 | 0.20 | 0.20 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
|  | 56 | 0.00 | 0.00 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |

## RULE OF 84

|  |  | YEARS OF SERVICE |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35+ |
| $\begin{aligned} & \text { ய } \\ & \text { U } \end{aligned}$ | 50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 |
|  | 51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.05 |
|  | 52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.05 | 0.05 |
|  | 53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.15 | 0.10 | 0.10 | 0.10 |
|  | 54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.15 | 0.10 | 0.10 | 0.10 | 0.10 |
|  | 55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.20 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
|  | 56 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |

## RULE OF 85

|  |  | YEARS OF SERVICE |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35+ |
| $\begin{aligned} & \text { ய } \\ & \text { 区 } \end{aligned}$ | 50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 |
|  | 51 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 |
|  | 52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.05 |
|  | 53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.15 | 0.10 | 0.10 |
|  | 54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.15 | 0.10 | 0.10 | 0.10 |
|  | 55 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.20 | 0.10 | 0.10 | 0.10 | 0.10 |
|  | 56 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |

## Analysis

In order for a plan change to be "revenue-neutral," the relationship between expected benefits and expected contributions must remain constant. In other words, if a plan amendment increases (decreases) the present value of future benefits, it must increase (decrease) the present value of future contributions by the same amount in order to be revenue-neutral on a Plan basis. The impact of plan changes on costs outside of the Plan (e.g., post-retirement health care costs) is not considered for purposes of this analysis.

If a less stringent eligibility requirement is applied to the CMMB, it will encourage retirement at earlier ages, which will in turn decrease the value of future contributions because expected future service will be reduced. Therefore, the CMMB benefit must be reduced from the full $\$ 3,100$ level for Rule of $82-85$ participants in order for liabilities to decrease by the same amount that future contributions decrease.

On this basis, we have determined revenue-neutral CMMB amounts for the Rule of 82-85 eligibility conditions, based on the modified retirement rate assumptions discussed above. Of course, there could be a cost (or benefit) to the Plan to the extent that actual retirement experience differs from these assumptions.

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The following table shows the UDATED, revenue-neutral CMMB for each eligibility condition.

| Eligibility <br> Condition | Combined Minimum <br> Monthly Benefit |
| :---: | :---: |
| Rule of 82 | $\$ 2,350$ |
| Rule of 83 | $\$ 2,450$ |
| Rule of 84 | $\$ 2,600$ |
| Rule of 85 | $\$ 2,750$ |

