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Subject: DOD Retiree Health Benefits Liability: Evaluation of DOD's Sensitivity Analysis

As part of our ongoing work with the Department of Defense (DOD) to prepare for auditable financial statements, we have worked extensively with the Office of Actuary and with Health Affairs on developing and reporting a reliable estimate for the postemployment health care benefits due to military retirees, their dependents, and survivors. To calculate the military retiree health care benefits liability, the DOD Office of Actuary has contracted with a private sector firm of actuaries and consultants, Milliman & Robertson (M&R), which has significant experience in estimating health related liabilities. M&R uses an actuarial model that relies on historical information about the retiree population and the numbers, types, and costs of medical services provided to them. The model also uses economic, actuarial, and other assumptions, such as future interest rates and projected rate increases for medical costs. Using the M&R model, DOD estimated its military retiree health care benefits liability to be \$196 billion in its fiscal year 1999 financial statements.

To help DOD and its auditors focus their data improvement and audit efforts on the elements that have the most significant impact on the resulting liability calculation, we asked the DOD Office of Actuary to prepare a sensitivity analysis. A sensitivity analysis identifies key elements—data and assumptions as discussed above—and varies a single element while holding the others constant to determine what amount of change in that element is required to raise or lower the resulting liability by a set amount. In this way, data and assumptions can be risk-ranked for decision-making and auditing.

As agreed to, when the Office of Actuary completed the sensitivity analysis, we (1) evaluated its completeness and accuracy and (2) reviewed the methodology used by M&R to calculate the retiree health benefits liability, including the actuarial model and individual calculations. Because of the technical nature of actuarial projections, we contracted with an independent accounting firm, Ernst & Young LLP, to assist us in this work. Our contractor provided actuarial expertise in reviewing documentation prepared by the Office of Actuary and by

M&R regarding the sensitivity analysis, the actuarial model calculations, and data used in the model to develop the liability estimate. This letter provides a high-level, nontechnical summary of the contractor's findings and includes our recommendation that the refinements discussed in those reports be implemented.

In general, our contractor found that the sensitivity analysis prepared by the Office of Actuary does a good job of identifying the factors that affect the military postretirement health care benefits liability and of evaluating the relative impact of those factors on the liability. However, the contractor did identify the following issues that should be addressed in order to make the analysis more complete.

- The analysis does not provide an in-depth discussion of the independence or interdependence of the relationship between the health care services provided by DOD and those provided by Medicare for retirees over age 65. If DOD retirees choose care provided by Medicare, or by the private sector, rather than by military treatment facilities, the liability could be significantly affected.
- The analysis does not discuss in detail the rationale for the inflation factors, economic assumptions, or retirement and death rates that are used in the calculation even though the analysis found these factors to have the most significant impact on the resulting liability estimate.

The contractor also identified areas where an additional break out of information is needed in order for the Office of Actuary to adequately analyze the impact of those areas on the liability calculation and to provide better information for decisionmakers.

- The under- and over-65 retiree populations are not currently reported separately even though these groups receive different benefits and therefore may have different needs, use patterns, and costs.
- The cost of providing pharmacy benefits has not been considered separately from other health care benefits, even though pharmacy usage patterns and inflation rates could be very different and therefore could significantly affect the resulting liability. For example, there is some evidence that retirees use more outpatient pharmacy resources than nonretirees. Furthermore, pharmacy costs have been increasing at a faster rate than other medical costs, yet the same medical trend rate has been applied to all outpatient costs.

Finally, the contractor found that the methodology used by the Office of Actuary and M&R to calculate the liability estimate is, in general, reasonable; however, the contractor did report the following deficiencies.

- The Office of Actuary has not properly documented the liability approach, methodology, and model. In addition to the benefit of good documentation realized by all users of the model and its results, the process of preparing the documentation could clarify the Office of Actuary's and M&R's understanding of their model and serve as an internal validation mechanism to ensure that the model calculates what is intended.
- The contractor tested a sample of five calculations for accuracy and consistency with the methodology of the model and found one to be in error. The erroneous calculation was

corrected as soon as we reported the problem; however, not all calculations were tested, so it is possible that other errors exist.

In order to make the analysis and the model more useful to DOD in evaluating changes in health care benefits' cost components and to the DOD auditors in planning future audit work related to the health care liability estimate, the contractor's reports recommend several improvements that we believe should be implemented. We worked closely with the Office of Actuary during the review and discussed all of the findings and desirable improvements with the Chief Actuary. The Office of Actuary indicated its concurrence with the contractor's findings and stated that some of the contractor's recommended improvements are already being undertaken and that the remainder will be addressed in the near future.

We are providing you copies of our contractor's detailed reports under separate cover. If you have questions or comments regarding this letter or the contractor's work or reports, please contact me at (202) 512-9095 or Molly Boyle at (202) 512-9524.



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