9904.412 Cost accounting standard for composition and measurement of pension cost.

9904.412-10 [Reserved]

9904.412-20 Purpose.

(a) The purpose of this Standard 9904.412 is to provide guidance for determining and measuring the components of pension cost. The Standard establishes the basis on which pension costs shall be assigned to cost accounting periods. The provisions of this Cost Accounting Standard should enhance uniformity and consistency in accounting for pension costs and thereby increase the probability that those costs are properly allocated to cost objectives.

(b) This Standard does not cover the cost of Employee Stock Ownership Plans (ESOPs) that meet the definition of a pension plan. Such plans are considered a form of deferred compensation and are covered under 9904.415.

9904.412-30 Definitions.

(a) The following are definitions of terms which are prominent in this Standard. Other terms defined elsewhere in this chapter 99 shall have the meanings ascribed to them in those definitions unless paragraph (b) of this subsection requires otherwise.

(1) Accrued benefit cost method means an actuarial cost method under which units of benefits are assigned to each cost accounting period and are valued as they accrue; that is, based on the services performed by each employee in the period involved. The measure of normal cost under this method for each cost accounting period is the present value of the units of benefit deemed to be credited to employees for service in that period. The measure of the actuarial accrued liability at a plan's measurement date is the present value of the units of benefit credited to employees for service prior to that date. (This method is also known as the Unit Credit cost method without salary projection.)

(2) Actuarial accrued liability means pension cost attributable, under the actuarial cost

method in use, to years prior to the current period considered by a particular actuarial valuation. As of such date, the actuarial accrued liability represents the excess of the present value of future benefits and administrative expenses over the present value of future normal costs for all plan participants and beneficiaries. The excess of the actuarial accrued liability over the actuarial value of the assets of a pension plan is the Unfunded Actuarial Liability. The excess of the actuarial value of the assets of a pension plan over the actuarial accrued liability is an actuarial surplus and is treated as a negative unfunded actuarial liability.

(3) Actuarial assumption means an estimate of future conditions affecting pension cost; for example, mortality rate, employee turnover, compensation levels, earnings on pension plan assets, changes in values of pension plan assets.

(4) Actuarial cost method means a technique which uses actuarial assumptions to measure the present value of future pension benefits and pension plan administrative expenses, and which assigns the cost of such benefits and expenses to cost accounting periods. The actuarial cost method includes the asset valuation method used to determine the actuarial value of the assets of a pension plan.

(5) Actuarial gain and loss means the effect on pension cost resulting from differences between actuarial assumptions and actual experience.

(6) Actuarial valuation means the determination, as of a specified date, of the normal cost, actuarial accrued liability, actuarial value of the assets of a pension plan, and other relevant values for the pension plan.

(7) Assignable cost credit means the decrease in unfunded actuarial liability that results when the pension cost computed for a cost accounting period is less than zero.

(8) Assignable cost deficit means the increase in unfunded actuarial liability that results when the pension cost computed for a qualified defined-benefit pension plan exceeds the maximum tax-deductible amount for the cost accounting period determined in accordance with the Internal Revenue Code at Title 26 of the U.S.C.

(9) Assignable cost limitation means the excess, if any, of the actuarial accrued liability plus the normal cost for the current period over the actuarial value of the assets of the pension plan.

(10) Defined-benefit pension plan means a pension plan in which the benefits to be paid or the basis for determining such benefits are established in advance and the contributions are intended to provide the stated benefits.

(11) Defined-contribution pension plan means a pension plan in which the contributions are established in advance and the benefits are determined thereby.

(12) Funded pension cost means the portion of pension cost for a current or prior cost accounting period that has been paid to a funding agency.

(13) Funding agency means an organization or individual which provides facilities to receive and accumulate assets to be used either for the payment of benefits under a pension plan, or for the purchase of such benefits, provided such accumulated assets form a part of a pension plan established for the exclusive benefit of the plan participants and their beneficiaries. The fair market value of the assets held by the funding agency as of a specified date is the Funding Agency Balance as of that date.

(14) Immediate-gain actuarial cost method means any of the several cost methods under which actuarial gains and losses are included as part of the unfunded actuarial liability of the pension plan, rather than as part of the normal cost of the plan.

(15) Market value of the assets means the sum of the funding agency balance plus the accumulated value of any permitted unfunded accruals belonging to a pension plan. The Actuarial Value of the Assets means the value of cash, investments, permitted unfunded accruals, and other property belonging to a pension plan, as used by the actuary for the purpose of an actuarial valuation.

(16) Multiemployer pension plan means a plan to which more than one employer contributes and which is maintained pursuant to one or more collective bargaining agreements between an employee organization and more than one employer.

(17) Nonforfeitable means a right to a pension benefit, either immediate or deferred, which arises from an employee's service, which is unconditional, and which is legally enforceable against the pension plan or the contractor. Rights to benefits that do not satisfy this definition are considered forfeitable. A right to a pension benefit is not forfeitable solely because it may be affected by the employee's or beneficiary's death, disability, or failure to achieve vesting requirements. Nor is a right considered forfeitable because it can be affected by the unilateral actions of the employee.

(18) Normal cost means the annual cost attributable, under the actuarial cost method in use, to current and future years as of a particular valuation date, excluding any payment in respect of an unfunded actuarial liability.

(19) Pay-as-you-go cost method means a method of recognizing pension cost only when benefits are paid to retired employees or their beneficiaries.

(20) Pension plan means a deferred compensation plan established and maintained by one or more employers to provide systematically for the payment of benefits to plan participants after their retirement, provided that the benefits are paid for life or are payable for life at the option of the employees. Additional benefits such as permanent and total disability and death payments, and survivorship payments to beneficiaries of deceased employees may be an integral part of a pension plan.

(21) Pension plan participant means any employee or former employee of an employer, or any member or former member of an employee organization, who is or may become eligible to receive a benefit from a pension plan which covers employees of such employer or members of such organization who have satisfied the plan's participation requirements, or whose beneficiaries are receiving or may be eligible to receive any such benefit. A participant whose employment status with the employer has not been terminated is an active participant of the employer's pension plan.

(22) Permitted unfunded accrual means the amount of pension cost for nonqualified defined-benefit pension plans that is not required to be funded under 9904.412-50(d)(2). The Accumulated Value of Permitted Unfunded Accruals means the value, as of the measurement date, of the permitted unfunded accruals adjusted for imputed earnings and for benefits paid by the contractor.

(23) Prepayment credit means the amount funded in excess of the pension cost assigned to a cost accounting period that is carried forward for future recognition. The Accumulated Value of Prepayment Credits means the value, as of the measurement date, of the prepayment credits adjusted for income and expenses in accordance with 9904.413-50(c)(7) and decreased for amounts used to fund pension costs or liabilities, whether assignable or not.

(24) Projected benefit cost method means either (i) any of the several actuarial cost methods which distribute the estimated total cost of all of the employees' prospective benefits over a period of years, usually their working careers, or (ii) a modification of the accrued benefit cost method that considers projected compensation levels.

(25) Qualified pension plan means a pension plan comprising a definite written program communicated to and for the exclusive benefit of employees which meets the criteria deemed essential by the Internal Revenue Service as set forth in the Internal Revenue Code for preferential tax treatment regarding contributions, investments, and distributions. Any other plan is a Nonqualified Pension Plan.

(b) The following modifications of terms defined elsewhere in this Chapter 99 are applicable to this Standard: None.

9904.412-40 Fundamental requirement.

(a) <u>Components of pension cost.</u>

(1) For defined-benefit pension plans, except for plans accounted for under the pay-as-you-go cost method, the components of pension cost for a cost accounting period are:

(i) the normal cost of the period,

(ii) a part of any unfunded actuarial liability,

(iii) an interest equivalent on the unamortized portion of any unfunded actuarial liability, and

(iv) an adjustment for any actuarial gains and losses.

(2) For defined-contribution pension plans, the pension cost for a cost accounting period is the net contribution required to be made for that period, after taking into account dividends and other credits, where applicable.

(3) For defined-benefit pension plans accounted for under the pay-as-you-go cost method, the components of pension cost for a cost accounting period are:

(i) The net amount of periodic benefits paid for that period, and

(ii) An amortization installment, including an interest equivalent on the unamortized settlement amount, attributable to amounts paid to irrevocably settle an obligation for periodic benefits due in current and future cost accounting periods.

(b) <u>Measurement of pension cost.</u>

(1) For defined-benefit pension plans other than those accounted for under the pay-as-you-go cost method, the amount of pension cost of a cost accounting period shall be determined by use of an immediate-gain actuarial cost method.

(2) Each actuarial assumption used to measure pension cost shall be separately identified and shall represent the contractor's best estimates of anticipated experience under the plan, taking into account past experience and reasonable expectations. The validity of each assumption used shall be evaluated solely with respect to that assumption. Actuarial assumptions used in calculating the amount of an unfunded actuarial liability shall be the same as those used for other components of pension cost.

(3) For qualified defined benefit pension plans, the measurement of pension costs shall recognize the requirements of 9904.412-50(b)(7) for periods beginning with the "Applicability Date of the CAS Pension Harmonization Rule." However, paragraphs 9904.413-50(c)(8), (9) and (12) are exempt from the requirements of 9904.412-50(b)(7).

(c) Assignment of pension cost. Except costs assigned to future periods by 9904.412-50(c)(2) and (5), the amount of pension cost computed for a cost accounting period is assignable only to that period. For defined-benefit pension plans other than those accounted for under the pay-as-you-go cost method, the pension cost is assignable only if the sum of (1) the unamortized portions of assignable unfunded actuarial liability developed and amortized pursuant to 9904.412-50(a)(1), and (2) the unassignable portions of unfunded actuarial liability separately identified and maintained pursuant to 9904.412-50(a)(2) equals the total unfunded actuarial liability.

(d) Allocation of pension cost. Pension costs assigned to a cost accounting period are allocable to intermediate and final cost objectives only if they meet the requirements for allocation in 9904.412-50(d). Pension costs not meeting these requirements may not be reassigned to any future cost accounting period.

9904.412-50 Techniques for application.

(a) Components of pension cost.

(1) The following portions of unfunded actuarial liability shall be included as a separately identified part of the pension cost of a cost accounting period and shall be included in equal annual installments. Each installment shall consist of an amortized portion of the unfunded actuarial liability plus an interest equivalent on the unamortized portion of such liability. The period of amortization shall be established as follows:

(i) If amortization of an unfunded actuarial liability has begun prior to the date this Standard first becomes applicable to a contractor, no change in the amortization period is required by this Standard.

(ii) If amortization of an unfunded actuarial liability has not begun prior to the date this Standard first becomes applicable to a contractor, the amortization period shall begin with the period in which the Standard becomes applicable and shall be no more than 30 years nor less than 10 years. However, if the plan was in existence as of January 1, 1974, the amortization period shall be no more than 40 years nor less than 10 years.

(iii) Each increase or decrease in unfunded actuarial liability resulting from the institution of new pension plans, from the adoption of improvements, or other changes to pension plans subsequent to the date this Standard first becomes applicable to a contractor shall be amortized over no more than 30 years nor less than 10 years.

(iv) If any assumptions are changed during an amortization period, the resulting increase or decrease in unfunded actuarial liability shall be separately amortized over no more than 30 years nor less than 10 years.

(v) Actuarial gains and losses shall be identified separately from unfunded actuarial liabilities that are being amortized pursuant to the provisions of this Standard. The accounting treatment to be afforded to such gains and losses shall be in accordance with Cost Accounting Standard 9904.413.

(vi) Each increase or decrease in unfunded actuarial liability resulting from an assignable cost deficit or credit, respectively, shall be amortized over a period of 10 years.

(vii) Each increase or decrease in unfunded actuarial liability resulting from a change in actuarial cost method, including the asset valuation method, shall be amortized over a period of 10 to 30 years. This provision shall not affect the requirements of 9903.302 to adjust previously priced contracts.

(2) (i) Except as provided in 9904.412-50(d)(2), any portion of unfunded actuarial liability attributable to either pension costs applicable to prior years that were specifically unallowable in accordance with then existing Government contractual provisions or pension costs assigned to a cost accounting period that were not funded in that period, shall be separately identified and eliminated from any unfunded actuarial liability being amortized pursuant to paragraph (a)(1) of this subsection.

(ii) Such portions of unfunded actuarial liability shall be adjusted for interest based on the interest assumption established in accordance with 9904.412-50(b)(4) without regard to 9904.412-50(b)(7). The contractor may elect to fund, and thereby reduce, such portions of unfunded actuarial liability and future interest adjustments thereon. Such funding shall not be recognized for purposes of 9904.412-50(d).

(3) A contractor shall establish and consistently follow a policy for selecting specific amortization periods for unfunded actuarial liabilities, if any, that are developed under the actuarial cost method in use. Such policy may give consideration to factors such as the size and nature of the unfunded actuarial liabilities. Except as provided in 9904.412-50(c)(2) or 9904.413-50(c)(12), once the amortization period for a portion of unfunded actuarial liability is selected, the amortization process shall continue to completion.

(4) Any amount funded in excess of the pension cost assigned to a cost accounting period shall be accounted for as a prepayment credit. The accumulated value of such prepayment credits shall be adjusted for income and expenses in accordance with 9904.413-50(c)(7) until applied towards pension cost in a future accounting period. The accumulated value of prepayment credits shall be reduced for portions of the accumulated value of prepayment credits used to fund pension costs or to fund portions of unfunded actuarial liability separately identified and maintained in accordance with 9904.412-50(a)(2). The accumulated value of any prepayment credits shall be excluded from the actuarial value of the assets used to compute pension costs for purposes of this Standard and Cost Accounting Standard 9904.413.

(5) An excise tax assessed pursuant to a law or regulation because of excess, inadequate, or delayed funding of a pension plan is not a component of pension cost. Income taxes paid from the funding agency of a nonqualified defined-benefit pension plan on earnings or other asset appreciation of such funding agency shall be treated as an administrative expense of the fund and not as a reduction to the earnings assumption.

(6) For purposes of this Standard, defined-benefit pension plans funded exclusively by the purchase of individual or group permanent insurance or annuity contracts, and thereby exempted from minimum funding requirements implemented by Employee Retirement Income Security Act of 1974 (ERISA), 29 U.S.C. 1001 et seq., as amended, shall be treated as defined-contribution pension plans. However, all other defined-benefit pension plans administered wholly or in part through insurance company contracts shall be subject to the provisions of this Standard relative to defined-benefit pension plans.

(7) If a pension plan is supplemented by a separately-funded plan which provides retirement benefits to all of the participants in the basic plan, the two plans shall be considered as a single plan for purposes of this Standard. If the effect of the combined plans is to provide defined-benefits for the plan participants, the combined plans shall be treated as a defined-benefit plan for purposes of this Standard.

(8) A multiemployer pension plan established pursuant to the terms of a collective

bargaining agreement shall be considered to be a defined-contribution pension plan for purposes of this Standard.

(9) A pension plan applicable to a Federally-Funded Research and Development Center (FFRDC) that is part of a State pension plan shall be considered to be a defined-contribution pension plan for purposes of this Standard.

(b) Measurement of pension cost.

(1) For defined-benefit pension plans other than those accounted for under the pay-as-you-go cost method, the amount of pension cost assignable to cost accounting periods shall be measured by an immediate-gain actuarial cost method.

(2) Where the pension benefit is a function of salaries and wages, the normal cost shall be computed using a projected benefit cost method. The normal cost for the projected benefit shall be expressed either as a percentage of payroll or as an annual accrual based on the service attribution of the benefit formula. Where the pension benefit is not a function of salaries and wages, the normal cost shall be based on employee service.

(3) For defined-benefit plans accounted for under the pay-as-you-go cost method, the amount of pension cost assignable to a cost accounting period shall be measured as the sum of:

(i) The net amount for any periodic benefits paid for that period, and

(ii) The level annual installment required to amortize over 15 years any amounts paid to irrevocably settle an obligation for periodic benefits due in current or future cost accounting periods.

(4) Actuarial assumptions shall reflect long-term trends so as to avoid distortions caused by short-term fluctuations.

(5) Pension cost shall be based on provisions of existing pension plans. This shall not preclude contractors from making salary projections for plans whose benefits are based on salaries and wages, or from considering improved benefits for plans which provide that such improved benefits must be made. For qualified defined benefit plans whose benefits are subject to a collectively bargained agreement(s) and whose benefits are not based on salaries and wages, the contractor may recognize benefit improvements expected to occur in succeeding plan years determined on the basis of the average annual increase in benefits over the 6 immediately preceding plan years.

(6) If the evaluation of the validity of actuarial assumptions shows that any assumptions were not reasonable, the contractor shall:

(i) Identify the major causes for the resultant actuarial gains or losses, and

(ii) Provide information as to the basis and rationale used for retaining or revising such assumptions for use in the ensuing cost accounting period(s).

(7) CAS Pension Harmonization Rule: For qualified defined benefit pension plans, the pension cost shall be determined in accordance with the provisions of paragraph (b)(7)(i) of this section.

(i) In any period that the sum of the minimum actuarial liability and the minimum normal cost exceeds the sum of the actuarial accrued liability and the normal cost, the contractor shall measure and assign the pension cost for the period in accordance with 9904.412 and 9904.413 by using the minimum actuarial liability and minimum normal cost as the actuarial accrued liability and normal cost, respectively, for all purposes unless otherwise excepted.

(ii) Special definitions to be used for this paragraph:

(A) The ***minimum actuarial liability*** shall be the actuarial accrued liability measured under the accrued benefit cost method and using an interest rate assumption as described in 9904.412-50(b)(7)(iii).

(B) The ***minimum normal cost*** shall be the normal cost measured under the accrued benefit cost method and using an interest rate assumption as described in 9904.412-50(b)(7)(iii). Anticipated administrative expense for the period shall be recognized as a separate incremental component of normal cost.

(iii) Actuarial Assumptions: The actuarial assumptions used to measure the minimum actuarial liability and minimum normal cost shall meet the following criteria:

(A) The interest assumption used to measure the pension cost for the current period shall reflect the contractor's best estimate of rates at which the pension benefits could effectively be settled based on the current period rates of return on investment grade fixed-income investments of similar duration to the pension benefits and that are in the top 3 quality levels available, e.g., Moody's' single 'A' rated or higher;

(B) The contractor may elect to use the same rate or set of rates, for investment grade corporate bonds of similar duration to the pension benefits, as may be published by the Secretary of the Treasury and used for determination of the minimum contribution required by ERISA. The contractor's cost accounting practice includes the election of the specific published rate or set of rates and must be consistently followed;

(C) For purposes of 9904.412-50(b)(7)(ii)(A) and (B), use of current period rates of return on investment grade corporate bonds of similar duration to the pension benefits shall not violate the provisions of 9904.412-40(b)(2) and 9904.412-50(b)(4) regarding the interest rate used to measure the minimum actuarial liability and minimum normal cost; and

(D) All actuarial assumptions, other than interest assumptions, used to measure the minimum actuarial liability and minimum normal cost shall be the same as the assumptions used elsewhere in this Standard.

(c) Assignment of pension cost.

(1) Amounts funded in excess of the pension cost assigned to a cost accounting period pursuant to the provisions of this Standard shall be accounted for as a prepayment credit and carried forward to future accounting periods.

(2) For qualified defined-benefit pension plans, the pension cost measured for a cost accounting period is assigned to that period subject to the following adjustments, in order of application:

(i) Any amount of pension cost measured for the period that is less than zero shall be assigned to future accounting periods as an assignable cost credit. The amount of pension cost assigned to the period shall be zero.

(ii) When the pension cost equals or exceeds the assignable cost limitation:

(A) The amount of pension cost, adjusted pursuant to paragraph (c)(2)(i) of this subsection, shall not exceed the assignable cost limitation,

(B) All amounts described in 9904.412-50(a)(1) and 9904.413-50(a), which are required to be amortized, shall be considered fully amortized, and

(C) Except for portions of unfunded actuarial liability separately identified and maintained in accordance with 9904.412-50(a)(2), any portion of unfunded actuarial liability, which occurs in the first cost accounting period after the pension cost has been limited by the assignable cost limitation, shall be considered an actuarial gain or loss for purposes of this Standard. Such actuarial gain or loss shall exclude any increase or decrease in unfunded actuarial liability resulting from a plan amendment, change in actuarial assumptions, or change in actuarial cost method effected after the pension cost has been limited by the assignable cost limitation.

(iii) An amount of pension cost of a qualified pension plan, adjusted pursuant to paragraphs (c)(2)(i) and (ii) of this subsection that exceeds the sum of (A) the maximum tax-deductible amount, determined in accordance with the Internal Revenue Code, and (B) the accumulated value of prepayment credits shall be assigned to future accounting periods as an assignable cost deficit. The amount of pension cost assigned to the current period shall not exceed the sum of the maximum tax-deductible amount plus the accumulated value of prepayment credits.

(3) The cost of nonqualified defined-benefit pension plans shall be assigned to cost accounting periods in the same manner as qualified plans (with the exception of paragraph (c)(2)(iii) of this subsection) under the following conditions:

(i) The contractor, in disclosing or establishing his cost accounting practices, elects to have a plan so accounted for;

(ii) The plan is funded through the use of a funding agency; and

(iii) The right to a pension benefit is nonforfeitable and is communicated to the participants.

(4) The costs of nonqualified defined-benefit pension plans that do not meet all of the requirements in 9904.412-50(c)(3) shall be assigned to cost accounting periods using the pay-as-you-go cost method.

(5) Any portion of pension cost measured for a cost accounting period and adjusted in accordance with 9904.412-50(c)(2) that exceeds the amount required to be funded pursuant to a waiver granted under the provisions of ERISA shall not be assigned to the current period. Rather, such excess shall be treated as an assignable cost deficit, except that it shall be assigned to future cost accounting periods using the same amortization period as used for ERISA purposes.

(d) Allocation of pension costs. The amount of pension cost assigned to a cost accounting period allocated to intermediate and final cost objectives shall be limited according to the following criteria:

(1) Except for nonqualified defined-benefit plans, the costs of a pension plan assigned to a cost accounting period are allocable to the extent that they are funded.

(2) For nonqualified defined-benefit pension plans that meet the criteria set forth at 9904.412-50(c)(3), pension costs assigned to a cost accounting period are fully allocable if they are funded at a level at least equal to the percentage of the complement (i.e., 100% - tax rate % = percentage of assigned cost to be funded) of the highest published Federal corporate income tax rate in effect on the first day of the cost accounting period. If the contractor is not subject to Federal income tax, the assigned costs are allocable to the extent such costs are funded. Funding at other levels and benefit payments of such plans are subject to the following:

(i) Funding at less than the foregoing levels shall result in proportional reductions of the amount of assigned cost that can be allocated within the cost accounting period.

(ii) (A) Payments to retirees or beneficiaries shall contain an amount drawn from sources other than the funding agency of the pension plan that is, at least, proportionately equal to the accumulated value of permitted unfunded accruals divided by an amount that is the market value of the assets of the pension plan excluding any accumulated value of prepayment credits.

(B) The amount of assigned cost of a cost accounting period that can be allocated shall be reduced to the extent that such payments are drawn in a higher ratio from the funding agency.

(iii) The permitted unfunded accruals shall be identified and accounted for year to year, adjusted for benefit payments directly paid by the contractor and for interest at the actual annual earnings rate on the funding agency balance.

(3) For nonqualified defined-benefit pension plans accounted for under the pay-as-you-go method, pension costs assigned to a cost accounting period are allocable in that period.

(4) Funding of pension cost shall be considered to have taken place within the cost accounting period if it is accomplished by the corporate tax filing date for such period including any permissible extensions thereto.

9904.412-60 Illustrations.

(a) <u>Components of pension cost</u>.

(1) Contractor A has insured pension plans for each of two small groups of employees. One plan is exclusively funded through a group permanent life insurance contract and is exempt from the minimum funding requirements of ERISA. The other plan is funded through a deposit administration contract, which is a form of group deferred annuity contract that is not exempt from ERISA's minimum funding requirements. Both plans provide for defined benefits. Pursuant to 9904.412-50(a)(6), for purposes of this Standard the plan financed through a group permanent insurance contract shall be considered to be a defined-contribution pension plan; the net premium required to be paid for a cost accounting period (after deducting dividends and any credits) shall be the pension cost for that period. However, the deposit administration contract plan is subject to the provisions of this Standard that are applicable to defined-benefit plans.

(2) Contractor B provides pension benefits for certain hourly employees through a multiemployer defined-benefit plan. Under the collective bargaining agreement, the contractor pays six cents into the fund for each hour worked by the covered employees. Pursuant to 9904.412-50(a)(8), the plan shall be considered to be a defined-contribution pension plan. The payments required to be made for a cost accounting period shall constitute the assignable pension cost for that period.

(3) Contractor C provides pension benefits for certain employees through a defined-contribution pension plan. However, the contractor has a separate fund that is used to supplement pension benefits for all of the participants in the basic plan in order to provide a minimum monthly retirement income to each participant. Pursuant to 9904.412-50(a)(7), the two plans shall be considered as a single plan for purposes of this Standard. Because the effect of the supplemental plan is to provide defined-benefits for the plan's participants, the provisions of this Standard relative to defined-benefit pension plans shall be applicable to the combined plan.

(4) Contractor D provides supplemental benefits to key management employees through a nonqualified defined-benefit pension plan funded by a so-called "Rabbi Trust." The trust agreement provides that Federal income taxes levied on the earnings of the Rabbi trust may be paid from the trust. The contractor's actuarial cost method recognizes the administrative expenses of the plan and trust, such as broker and attorney fees, by adding the prior year's expenses to the current year's normal cost. The income taxes paid by the trust on trust earnings shall be accorded the same treatment as any other administrative expense in accordance with 9904.412-50(a)(5).

(5) (i) Contractor E has been using the entry age normal actuarial cost method to compute pension costs. The contractor has three years remaining under a firm fixed price contract subject to this Standard. The contract was priced using the unfunded actuarial liability, normal cost, and net amortization installments developed using the entry age normal method. The contract was priced as follows:

Cost Component	Entry Age Normal Values Year 1	Year 2	Year 3
Normal Cost	$ 100,000	$ 105,000	$ 110,000
Amortization	50,000	50,000	50,000
Pension Cost	$ 150,000	$ 155,000	$ 160,000

(ii) The contractor, after notifying the cognizant Federal official, switches to the projected unit credit actuarial cost method. The unfunded actuarial liability and normal cost decreased when redetermined under the projected unit credit method. Pursuant to 9904.412-50(a)(1)(vii), the contractor determines that an annual installment credit of $20,000 will amortize the decrease in unfunded actuarial liability (UAL) over ten years. The following pension costs are determined under the projected unit credit method:

Cost Component	Projected Unit Credit Values Year 1	Year 2	Year 3
Normal Cost	$ 80,000	$ 85,000	$ 90,000
Amortization			
Prior Method	50,000	50,000	50,000
UAL Decrease	(20,000)	(20,000)	(20,000)
Pension Cost	$ 110,000	$ 115,000	$ 120,000

(iii) The change in cost method is a change in accounting method that decreased previously priced pension costs by $40,000 per year. In accordance with 9903.302, Contractor E shall adjust the cost of the firm fixed-price contract for the remaining three years by $120,000 ($40,000 x 3 years).

(6) Contractor F has a defined-benefit pension plan for its employees. Prior to being subject to this Standard the contractor's policy was to compute and fund as annual pension cost normal cost plus only interest on the unfunded actuarial liability. Pursuant to 9904.412-40(a)(1), the components of pension cost for a cost accounting period must now include not only the normal cost for the period and interest on the unfunded actuarial liability, but also an amortized portion of the unfunded actuarial liability. The amortization of the liability and the interest

equivalent on the unamortized portion of the liability must be computed in equal annual installments.

(b) Measurement of pension cost.

(1) Contractor G has a pension plan whose costs are assigned to cost accounting periods by use of an actuarial cost method that does not separately identify actuarial gains and losses or the effect on pension cost resulting from changed actuarial assumptions. Contractor G's method is not an immediate-gain cost method and does not comply with the provisions of 9904.412-50(b)(1).

(2) For several years Contractor H has had an unfunded nonqualified pension plan which provides for payments of $200 a month to employees after retirement. The contractor is currently making such payments to several retired employees and recognizes those payments as its pension cost. The contractor paid monthly annuity benefits totaling $24,000 during the current year. During the prior year, Contractor H made lump sum payments to irrevocably settle the benefit liability of several participants with small benefits. The annual installment to amortize these lump sum payments over fifteen years at the interest rate assumption, which is based on the expected rate of return on investments and complies with 9904.412-40(b)(2) and 9904.412-50(b)(4), is $5,000. Since the plan does not meet the criteria set forth in 9904.412-50(c)(3)(ii), pension cost must be accounted for using the pay-as-you-go cost method. Pursuant to 9904.412-50(b)(3), the amount of assignable cost allocable to cost objectives of that period is $29,000, which is the sum of the amount of benefits actually paid in that period ($24,000) plus the second annual installment to amortize the prior year's lump sum settlements ($5,000).

(3) Contractor I has two qualified defined-benefit pension plans that provide for fixed dollar payments to hourly employees.

(i) Under the first plan, in which the benefits are not subject to a collective bargaining agreement, the contractor's actuary believes that the contractor will be required to increase the level of benefits by specified percentages over the next several years based on an established pattern of benefit improvements. In calculating pension costs for this first plan, the contractor may not assume future benefits greater than that currently required by the plan.

(ii) With regard to the second plan, a collective bargaining agreement negotiated with the employees' labor union provides that pension benefits will increase by specified percentages over the next several years. Because the improved benefits are required to be made, the contractor can consider not only benefits increases required by the collective bargaining agreement, but may also consider subsequent benefit increases based on the average increase in benefits during the previous 6 years in computing pension costs for the current cost accounting period in accordance with 9904.412-50(b)(5).

(4) In addition to the facts of 9904.412-60(b)(3), assume that Contractor I was required to contribute at a higher level for ERISA purposes because the plan was underfunded. To compute pension costs that are closer to the funding requirements of ERISA, Contractor I decides to "fresh start" the unfunded actuarial liability being amortized pursuant to 9904.412-50(a)(1); i.e., treat the entire amount as a newly established portion of unfunded actuarial liability, which is amortized over 10 years in accordance with 9904.412-50(a)(1)(ii). Because the contractor has changed the periods for amortizing the unfunded actuarial liability established pursuant to 9904.412-50(a)(3), the contractor has made a change in accounting practice subject to the provisions of Cost Accounting Standard 9903.302.

(c) Assignment of pension cost.

(1) Contractor J maintains a qualified defined-benefit pension plan. The actuarial accrued liability for the plan is $20 million and is measured by the minimum actuarial liability in accordance with 9904.412-50(b)(7)(ii) since the criterion of 9904.412-50(b)(7(i) has been satisfied. The actuarial value of the assets of $18 million is subtracted from the actuarial accrued liability of $20 million to determine the total unfunded actuarial liability of $2 million. Pursuant to 9904.412-50(a)(1), Contractor J has identified and is amortizing twelve separate portions of unfunded actuarial liabilities. The sum of the unamortized balances for the twelve separately maintained portions of unfunded actuarial liability equals $1.8 million. In accordance with 9904.412-50(a)(2), the contractor has separately identified, and eliminated from the computation of pension cost, $200,000 attributable to a pension cost assigned to a prior period that was not funded. The sum of the twelve amortization bases maintained pursuant to 9904.412-50(a)(1) and the amount separately identified under 9904.412-50(a)(2) equals $2 million ($1,800,000 + 200,000). Because the sum of all identified portions of unfunded actuarial liability equals the total unfunded actuarial liability, the plan is in actuarial balance and Contractor J can assign pension cost to the current cost accounting period in accordance with 9904.412-40(c).

(2) Contractor K's pension cost computed for 2017, the current year, is $1.5 million. This computed cost is based on the components of pension cost described in 9904.412-40(a) and 9904.412-50(a) and is measured in accordance with 9904.412-40(b) and 9904.412-50(b). The assignable cost limitation, which is defined at 9904.412-30(a)(9), is $1.3 million. In accordance with the provisions of 9904.412-50(c)(2)(ii)(A), Contractor K's assignable pension cost for 2017 is limited to $1.3 million. In addition, all amounts that were previously being amortized pursuant to 9904.412-50(a)(1) and 9904.413-50(a) are considered fully amortized in accordance with 9904.412-50(c)(2)(ii)(B). The following year, 2018, Contractor K computes an unfunded

actuarial liability of $4 million. Contractor K has not changed his actuarial assumptions nor amended the provisions of his pension plan. Contractor K has not had any pension costs disallowed or unfunded in prior periods. Contractor K must treat the entire $4 million of unfunded actuarial liability as an actuarial loss to be amortized over a ten-year period beginning in 2018 in accordance with 9904.412-50(c)(2)(ii)(C) and 9904.413-50(a)(2)(ii).

(3) Assume the same facts shown in illustration 9904.412-60(c)(2), except that in 2016, the prior year, Contractor K's assignable pension cost was $800,000, but Contractor K only funded and allocated $600,000. Pursuant to 9904.412-50(a)(2), the $200,000 of unfunded assignable pension cost was separately identified and eliminated from other portions of unfunded actuarial liability. This portion of unfunded actuarial liability was adjusted for 8% interest, which is the interest assumption for 2016 and 2017, and was brought forward to 2017 in accordance with 9904.412-50(a)(2). Therefore, $216,000 ($200,000 x 1.08) is excluded from the amount considered fully amortized in 2017. The next year, 2018, Contractor K must eliminate $233,280 ($216,000 x 1.08) from the $4 million so that only $3,766,720 is treated as an actuarial loss in accordance with 9904.412-50(c)(2)(ii)(C).

(4) Assume, as in 9904.412-60(c)(2), the 2017 pension cost computed for Contractor K's qualified defined-benefit pension plan is $1.5 million and the assignable cost limitation is $1.7 million. The accumulated value of prepayment credits is $0. However, because of the limitation on tax-deductible contributions imposed by the Internal Revenue Code at Title 26 of the U.S.C., Contractor K cannot fund more than $1 million without incurring an excise tax, which 9904.412-50(a)(5) does not permit to be a component of pension cost. In accordance with the provisions of 9904.412-50(c)(2)(iii), Contractor K's assignable pension cost for the period is limited to $1 million. The $500,000 ($1.5 million - $1 million) of pension cost not funded is reassigned to the next ten cost accounting periods beginning in 2018 as an assignable cost deficit in accordance with 9904.412-50(a)(1)(vi).

(5) Assume the same facts for Contractor K in 9904.412-60(c)(4), except that the accumulated value of prepayment credits equals $700,000. Therefore, in addition to the $1 million tax-deductible contribution which was deposited on the first day of the plan year, Contractor K could apply up to $700,000 of the accumulated value of prepayment credits towards the pension cost computed for the period. In accordance with the provisions of 9904.412-50(c)(2)(iii), the amount of pension cost assigned to the current period shall not exceed $1,700,000, which the sum of the $1 million maximum tax-deductible amount and $700,000 accumulated value of prepayment credits. Contractor K's assignable pension cost for the period is the full $1.5 million computed for the period. A new prepayment credit of $200,000 is created by the excess funding after applying sum of the $1 million contribution and $700,000 accumulated value of prepayment credits towards the $1.5 million assigned pension cost ($700,000 + $1,000,000 - $1,500,000). The $200,000 of remaining accumulated value of

prepayment credits is adjusted for $14,460 of investment income allocated in accordance with 9904.412-50(a)(4) and 9904.413-50(c)(7) and the sum of $214,460 is carried forward until needed in future accounting periods in accordance with 9904.412-50(a)(4) and 9904.412-50(c)(1).

(6) Assume the same facts for Contractor K in 9904.412-60(c)(4), except that the **2017** assignable cost limitation is $1.3 million. Pension cost of $1.5 million is computed for the cost accounting period, but the assignable cost is limited to $1.3 million in accordance with 9904.412-50(c)(2)(ii)(A). Pursuant to 9904.412-50(c)(2)(ii)(B), all existing amortization bases maintained in accordance with 9904.412-50(a)(1) are considered fully amortized. The assignable cost of $1.3 million is then compared to the maximum tax-deductible amount of $1 million. Pursuant to 9904.412-50(c)(2)(iii), Contractor K's assignable pension cost for the period is limited to $1 million. The $300,000 ($1.3 million - $1 million) excess of the assignable cost limitation over the tax-deductible maximum is assigned to future periods as an assignable cost deficit.

(7) Contractor L is currently amortizing a large decrease in unfunded actuarial liability over a period of ten years. A similarly large increase in unfunded actuarial liability is being amortized over 30 years. The absolute value of the resultant net amortization credit is greater than the normal cost so that the pension cost computed for the period is a negative $200,000. Contractor L first applies the provisions of 9904.412-50(c)(2)(i) and determines the assignable pension cost is $0. The negative pension cost of $200,000 is assigned to the next ten cost accounting periods as an assignable cost credit in accordance with 9904.412-50(a)(1)(vi). However, when Contractor L applies the provisions of 9904.412-50(c)(2)(ii), the assignable cost limitation is also $0. Because the assignable cost of $0 determined under 9904.412-50(c)(2)(i) is equal to the assignable cost limitation, the assignable cost credit of $200,000 is considered fully amortized along with all other portions of unfunded actuarial liability being amortized pursuant to 9904.412-50(a)(1). Conversely, if the assignable cost limitation had been greater than zero, the assignable cost credit of $200,000 would have carried-forward and amortized in future periods.

(8) Contractor M has a qualified defined-benefit pension plan which is funded through a funding agency. It computes $1 million of pension cost for a cost accounting period. However, pursuant to a waiver granted under the provisions of ERISA, Contractor M is required to fund only $800,000. Under the provisions of 9904.412-50(c)(5), the remaining $200,000 shall be accounted for as an assignable cost deficit and assigned to the next five cost accounting periods in accordance with the terms of the waiver.

(9) Contractor N has a company-wide defined-benefit pension plan, wherein benefits are calculated on one consistently applied formula. That part of the formula defining benefits within

ERISA limits is administered and reported as a qualified plan and funded through a funding agency. The remainder of the benefits are considered to be a supplemental or excess plan which, while it meets the criteria at 9904.412-50(c)(3)(iii) as to nonforfeitability and communication, is not funded. The costs of the qualified portion of the plan shall be comprised of those elements of costs delineated at 9904.412-40(a)(1), while the supplemental or excess portion of the plan shall be accounted for and assigned to cost accounting periods under the pay-as-you-go cost method provided at 9904.412-40(a)(3) and 9904.412-50(c)(4).

(10) Assuming the same facts as in 9904.412-60(c)(9), except that Contractor N funds its supplemental or excess plan using a so-called "Rabbi Trust" vehicle. Because the nonqualified plan is funded, the plan meets the criteria set forth at 9904.412-50(c)(3)(ii). Contractor N may account for the supplemental or excess plan in the same manner as its qualified plan, if it elects to do so pursuant to 9904.412-50(c)(3)(i).

(11) Assuming the same facts as in 9904.412-60(c)(10), except that under the nonqualified portion of the pension plan a former employee will forfeit his pension benefit if the employee goes to work for a competitor within three years of terminating employment. Since the right to a benefit cannot be affected by the unilateral action of the contractor, the right to a benefit is considered to be nonforfeitable for purposes of 9904.412-30(a)(17). The nonqualified plan still meets the criteria set forth at 9904.412-50(c)(3)(iii), and Contractor N may account for the supplemental or excess plan in the same manner as its qualified plan, if it elects to do so.

(12) Assume the same facts as in 9904.412-60(c)(11), except that Contractor N, while maintaining a "Rabbi Trust" funding vehicle elects to have the plan accounted for under the pay-as-you-go cost method so as to have greater latitude in annual funding decisions. It may so elect pursuant to 9904.412-50(c)(3)(i).

(13) The assignable pension cost for Contractor O's qualified defined-benefit plan is $600,000. For the same period Contractor O contributes $700,000 which is the minimum funding requirement under ERISA. In addition, there exists $75,000 of unfunded actuarial liability that has been separately identified pursuant to 9904.412-50(a)(2). Contractor O may use $75,000 of the contribution in excess of the assignable pension cost to fund this separately identified unfunded actuarial liability, if he so chooses. The effect of the funding is to eliminate the unassignable $75,000 portion of unfunded actuarial liability that had been separately identified and thereby eliminated from the computation of pension costs. Contractor O shall then account for the remaining $25,000 ([$700,000 - $600,000] - $75,000) of excess contribution as a prepayment credit in accordance with 9904.412-50(a)(4).

(d) <u>Allocation of pension cost</u>.

(1) Assume the same set of facts for Contractor M in 9904.412-60(c)(8) except there was no ERISA waiver; i.e., only $800,000 was funded against $1 million of assigned pension cost for the period. Under the provisions of 9904.412-50(d)(1), only $800,000 may be allocated to Contractor M's intermediate and final cost objectives. The remaining $200,000 of assigned cost, which has not been funded, shall be separately identified and maintained in accordance with 9904.412-50(a)(2) so that it will not be reassigned to any future accounting periods.

(2) Contractor P has a nonqualified defined-benefit pension plan which covers benefits in excess of the ERISA limits. Contractor P has elected to account for this plan in the same manner as its qualified plan and, therefore, has established a "Rabbi Trust" as the funding agency. For the current cost accounting period, the contractor computes and assigns $100,000 as pension cost. The contractor funds $65,000, which is equivalent to a funding level equal to the complement of the highest published Federal corporate income tax rate of 35%. Under the provisions of 9904.412-50(d)(2), the entire $100,000 is allocable to cost objectives of the period.

(3) Assume the set of facts in 9904.412-60(d)(2), except that Contractor P's contribution to the Trust is $59,800. In that event, the provisions of 9904.412-50(d)(2)(i) would limit the amount of assigned cost allocable within the cost accounting period to the percentage of cost funded (i.e., $59,800/$65,000 = 92%). This results in allocable cost of $92,000 (92% of $100,000) for the cost accounting period. Under the provisions of 9904.412-40(c) and 9904.412-50(d)(2)(i), respectively, the unallocable $8,000 may not be assigned to any future cost accounting period. In addition, in accordance with 9904.412-50(a)(2), the $8,000 must be separately identified and no amount of interest on such separately identified $8,000 shall be a component of pension cost in any future cost accounting period.

(4) Again, assume the set of facts in 9904.412-60(d)(2) except that, Contractor P's contribution to the Trust is $105,000 based on an interest assumption of 8%, which is based on the expected rate of return on investments and complies with 9904.412-40(b)(2) and 9904.412-50(b)(4). Under the provisions of 9904.412-50(d)(2) the entire $100,000 is allocable to cost objectives of the period. In accordance with the provisions of 9904.412-50(c)(1) Contractor P has funded $5,000 ($105,000 - $100,000) in excess of the assigned pension cost for the period. The $5,000 shall be accounted for as a prepayment credit. Pursuant to 9904.412-50(a)(4), the $5,000 shall be adjusted for an allocated portion of the total investment income and expenses in accordance with 9904.412-50(a)(4) and 9904.413-50(c)(7). Allocated earnings and expenses, and the prepayment credits, shall be excluded from the actuarial value of assets used to compute the next year's pension cost. For the current period the net return on assets attributable to investment income and expenses was 6.5%. Therefore, the accumulated value of prepayment credits of $5,325 (5,000 x 1.065) may be used to fund the next year's assigned pension cost, if needed.

(5) Contractor Q maintains a nonqualified defined-benefit pension plan which satisfies the requirements of 9904.412-50(c)(3). As of the valuation date, the reported funding agency balance is $3.4 million excluding any accumulated value of prepayment credits. When the adjusted funding agency balance is added to the accumulated value of permitted unfunded accruals of $1.6 million, the market value of assets equals $5.0 million ($3.4 million + $1.6 million) in accordance with 9904.412-30(a)(15). During the plan year, retirees receive monthly benefits totalling $350,000. Pursuant to 9904.412-50(d)(2)(ii)(A), at least 32% ($1.6 million divided by $5 million) of these benefit payments shall be made from sources other than the funding agency. Contractor Q, therefore, draws $238,000 from the funding agency assets and pays the remaining $112,000 using general corporate funds.

(6) Assume the same facts as 9904.412-60(d)(5), except that by the time Contractor Q receives its actuarial valuation it has paid retirement benefits equaling $288,000 from funding agency assets. The contractor has made deposits to the funding agency equal to the tax complement of the $500,000 assignable pension cost for the period. Pursuant to 9904.412-50(d)(2)(ii)(B), the assignable $500,000 shall be reduced by the $50,000 ($288,000 - $238,000) of benefits paid from the funding agency in excess of the permitted $238,000, unless the contractor makes a deposit to replace the $50,000 inadvertently drawn from the funding agency. If this corrective action is not taken within the time permitted by 9904.412-50(d)(4), Contractor Q shall allocate only $450,000 ($500,000-$50,000) to final cost objectives. Furthermore, the $50,000, which was thereby attributed to benefit payments instead of funding, must be separately identified and maintained in accordance with 9904.412-50(a)(2).

(7) Contractor R has a nonqualified defined-benefit plan that meets the criteria of 9904.412-50(c)(3). For 1996, the funding agency balance was $1,250,000 and the accumulated value of permitted unfunded accruals was $600,000. During 1996 the earnings and appreciation on the assets of the funding agency equaled $125,000, benefit payments to participants totaled $300,000, and administrative expenses were $60,000. All transactions occurred on the first day of the period. In accordance with 9904.412-50(d)(2)(ii)(A), $200,000 of benefits were paid from the funding agency and $100,000 were paid directly from corporate assets. Pension cost of $400,000 was assigned to 1996. Based on the current corporate tax rate of 35%, $260,000 ($400,000 x (1-35%)) was deposited into the funding agency at the beginning of 1996. For 1997 the funding agency balance is $1,375,000 ($1,250,000 + $260,000 + $125,000 - $200,000 - $60,000). The actual annual earnings rate of the funding agency was 10% for 1996. Pursuant to 9904.412-50(d)(2)(iii), the accumulated value of permitted unfunded accruals is updated from 1996 to 1997 by: (i) adding $140,000 (35% x $400,000), which is the unfunded portion of the assigned cost; (ii) subtracting the $100,000 of benefits paid directly by the contractor; and (iii) increasing the value of the assets by $64,000 for imputed earnings at 10% (10% x ($600,000 + $140,000 - $100,000)). The accumulated value of permitted unfunded accruals for 1997 is

$704,000 ($600,000 + $140,000 - $100,000 + $64,000).

9904.412-60.1 Illustrations – CAS Pension Harmonization Rule.

The following illustrations address the measurement, assignment and allocation of pension cost on or after the Applicability Date of the CAS Harmonization Rule. The illustrations present the measurement, assignment and allocation of pension cost for a contractor that separately computes pension costs by segment or aggregation of segments. The actuarial gain and loss recognition of changes between measurements based on the actuarial accrued liability, determined without regard to the provisions of 9904.412-50(b)7) and the minimum actuarial liability are illustrated in 9904.412-60.1(d). The structural format for 9904.412.60.1 differs from the format for 9904.412-60.

(a) Description of the pension plan, actuarial assumptions and actuarial methods used for 9904.412-60.1 Illustrations.

(1) Introduction: Harmony Corporation has a defined-benefit pension plan covering employees at seven segments, of which some segments have contracts that are subject to this Standard and 9904.413, while other segments perform commercial work only. The demographic experience regarding employee terminations for employees of Segment 1 is materially different from that of the other six segments so that pursuant to 9904.413-50(c)(2)(iii) the contractor must separately compute the pension cost for Segment 1. Because the factors comprising pension cost for Segments 2 through 7 are relatively equal, the contractor computes pension cost for these six segments in the aggregate and allocates the aggregate cost to segments on a composite basis. Inactive employees are retained in the segment from which they terminated employment. The contractor has received its annual actuarial valuation for its qualified defined benefit pension plan, which bases the pension benefit on the employee's final average salary.

(2) Actuarial Methods and Assumptions:

(i) Salary Projections: As permitted by 9904.412-50(b)(5), the contractor includes a projection of future salary increases and uses the projected unit credit cost method, which is an immediate gain actuarial cost method that satisfies the requirements of 9904.412-40(b)(1) and 50(b)(1), for measuring the actuarial accrued liability and normal cost. The contractor uses the accrued benefit cost method (also known as the unit credit cost method without projection) to measure the minimum actuarial liability and minimum normal cost. The accrued benefit cost method satisfies 9904.412-50(b)(7)(ii) as well as 9904.412-40(b)(1) and 50(b)(1).

(ii) Interest Rates:

(A) Assumed interest rate used to measure the actuarial accrued liability and normal cost: The contractor's basis for establishing the expected rate of return on investments assumption satisfies the criteria of 9904.412-40(b)(2) and 9904.412-50(b)(4). This is referred to as the "assumed interest rate" for purposes of this illustration.

(B) Corporate bond rate used to measure the minimum actuarial liability and minimum normal cost: For purposes of measuring the minimum actuarial liability and minimum normal cost the contractor has elected to use a specific set of investment grade corporate bond yield rates published by the Secretary of the Treasury for ERISA's minimum funding requirements. The basis for establishing the set of corporate bond rates meets the requirements of 9904.412-50(b)(7)(iii)(A) as permitted by 9904.412-50(b)(7)(iii)(B). This set of rates is referred to as the "corporate bond rates" for purposes of this illustration.

(iii) Mortality: The mortality assumption is based on a table of generational mortality rates published by the Secretary of the Treasury and reflects recent mortality improvements. This table satisfies 9904.412-40(b)(2) which requires assumptions to "represent the contractor's best estimates of anticipated experience under the plan, taking into account past experience and reasonable expectations." The specific table used for each valuation shall be identified.

(iv) Termination of Employment: The termination of employment (turnover) assumption is based on an experience study of Harmony Company employee terminations or causes other than retirement. Because the experience for Segment 1 was materially different from the experience for the rest of the company, the termination of employee assumption for Segment 1 was developed based on the experience of that segment only in accordance with 9904.413-50(c)(2)(iii). The termination of employment experiences for each of Segments 2 through 7 were materially similar, and therefore the termination of employee assumption for Segments 2 through 7 was developed based on the experiences of those segments in the aggregate.

(v) Actuarial Value of Assets: The valuation of the actuarial value of assets used for CAS 412 and 413 is based on a recognized smoothing technique that "provides equivalent recognition of appreciation and depreciation of the market value of the assets of the pension plan." The disclosed method also constrains the asset value to a corridor bounded by 80% to 120% of the market value of assets. This method for measuring the actuarial value of assets satisfies the provisions of 9904.413-50(b)(2).

(b) Measurement of Pension Costs. Based on the pension plan, actuarial methods and actuarial assumptions described in 9904.412-60.1(a), the Harmony Corporation determines that the pension plan, as well as Segment 1 and Segments 2 through 7, have unfunded actuarial liabilities and measures its pension cost for plan year 2017 as follows:

(1) Asset Values:

(i) Market Values of Assets: The contractor accounts for the market value of assets in accordance with 9904.413-50(c)(7). The contractor has elected to separately identify the accumulated value of prepayment credits from the assets allocated to segments. The accumulated value of prepayment credits are adjusted in accordance with 9904.412-50(a)(4) and 9904.413-50(c)(7). The market value of assets as of January 1, 2017, including the accumulated value of prepayment credits, is summarized in Table 1.

Table 1

January 1, 2017, Market Value of Assets

	Total Plan	Segment 1	Segments 2 through 7	Accumulated Prepayments	Note
Market Value of Assets	$14,257,880	$ 1,693,155	$11,904,328	$ 660,397	1

Note 1: Information taken directly from the actuarial valuation report prepared for CAS 412 and 413 purposes and supporting documentation.

(ii) Actuarial Value of Assets: Based on the contractor's disclosed asset valuation method, and recognition of the asset gain or loss, which is the difference between the expected income, based on the assumed interest rate, which complies with 9904.412-40(b)(2) and 9904.412-50(b)(4), and the actual income, including realized and unrealized appreciation and depreciation for the current and four prior periods as required by 9904.413-40(b), is delayed and amortized over a five-year period. The portion of the appreciation and depreciation that is deferred until future periods is subtracted from the market value of assets to determine the actuarial value of assets for CAS 412 and 413 purposes. The actuarial value of assets cannot be less than 80%, or more than 120%, of the market value of assets. The development of the actuarial value of assets for the total plan, as well as for Segment 1 and Segments 2 through 7, as of January 1, 2017 is shown in Table 2.

Table 2

January 1, 2017, Actuarial Value of Assets					
	Total Plan	Segment 1	Segments 2 through 7	Accumulated Prepayments	Note
Market Value at January 1, 2017	$ 14,257,880	$ 1,693,155	$11,904,328	$ 660,397	1
Total Deferred Appreciation	(37,537)	(4,398)	(31,400)	(1.739)	2
Unlimited Actuarial Value of Assets	$ 14,220,343	$ 1,688,757	$11,872,928	$ 658,658	
CAS 413 Asset Corridor 80% of Market Value of Assets	$ 11,406,304	$ 1,354,524	$ 9,523,462	$ 528,318	
Market Value at January 1, 2017	$ 14,257,880	$ 1,693,155	$ 11,904,328	$ 660,397	1
120% of Market Value of Assets	$ 17,109,456	$ 2,031,786	$ 14,285,194	$ 792,476	
CAS Actuarial Value of Assets	$ 14,220,343	$ 1,688,757	$ 11,872,928	$ 658,658	3, 4

Note 1: See Table 1.

Note 2: Information taken directly from the actuarial valuation report prepared for CAS 412 and 413 purposes and supporting documentation.

Note 3: CAS Actuarial Value of Assets cannot be less than 80% of Market Value of Assets or more than 120% of Market Value of Assets.

Note 4: The Actuarial Value of Assets are used in determination of any Unfunded Actuarial Liability or Unfunded Actuarial Surplus regardless of whether the liability is based on the actuarial accrued liability measured without regard to 9904.412-50(b)(7) or minimum actuarial liability measured in accordance with 9904.412-50(b)(7).

(2) Liabilities and Normal Costs:

(i) Actuarial Accrued Liabilities and Normal Costs: Based on the plan population data and the disclosed methods and assumptions for CAS 412 and 413 purposes, the contractor measures the actuarial accrued liability and normal cost on a going concern basis using an assumed interest rate that satisfies the requirements of 9904.412-40(b)(2) and 9904.412-50(b)(4). The actuarial accrued liability and normal cost for each segment are measured based on the termination of employment assumption unique to that segment. The actuarial accrued liability and normal cost for the total plan is the sum of the actuarial accrued liability and normal cost for the segments. The actuarial accrued liability and normal cost are shown in Table 3.

Table 3

Actuarial Accrued Liabilities and Normal Costs as of January 1, 2017

	Total Plan	Segment 1	Segments 2 through 7	Notes
Actuarial Accrued Liability	$ 16,325,000	$ 2,100,000	$ 14,225,000	1
Normal Cost	$ 910,700	$ 89,100	$ 821,600	1
Expense Load on Normal Cost	$ -	$ -	$ -	2

Note 1: Information taken directly from the actuarial valuation report prepared for CAS 412 and 413 purposes and supporting documentation. The actuarial accrued liability and normal cost are computed using the assumed interest rate in accordance with 9904.412-40(b)(2) and 9904.412.50(b)(4).

Note 2: Expected administrative expenses are implicitly recognized as part of the assumed interest rate.

(ii) Likewise, based on the plan population data and the disclosed methods and assumptions for CAS 412 and 413 purposes, the contractor measures the minimum actuarial liability and minimum normal cost using a set of investment grade corporate bond yield rates published by the Secretary of the Treasury that satisfy the requirements of 9904.412-50(b)(7)(iii). The minimum actuarial liability and minimum normal cost for each segment are measured based on the termination of employment assumption for that segment. The minimum actuarial liability and minimum normal cost for the total plan is the sum of the actuarial accrued liability and normal cost for the segments as shown in Table 4.

Table 4

Minimum Actuarial Liabilities and Minimum Normal Costs as of January 1, 2017

	Total Plan	Segment 1	Segments 2 through 7	Notes
Minimum Actuarial Liability	$ 16,636,000	$ 2,594,000	$ 14,042,000	1
Minimum Normal Cost	$ 942,700	$ 102,000	$ 840,700	1

Expense Load on Minimum Normal Cost	$ 82,000	$ 8,840	$ 73,160	1, 2

Note 1: Plan level information taken directly from the actuarial valuation report prepared for ERISA purposes and supporting documentation and equals the sum of the data for the segments. Data for the segments is taken directly from the actuarial valuation report prepared for CAS 412 and 413 purposes and supporting documentation.

Note 2: Anticipated annual administrative expenses are separately recognized as an incremental component of minimum normal cost in accordance with 9904.412-50(b)(7)(ii)(B).

(3) CAS Pension Harmonization Test:

(i) In accordance with 9904.412-50(b)(7)(i), the contractor compares the sum of the actuarial accrued liability and normal cost plus any expense load, to the sum of the minimum actuarial liability and minimum normal cost plus any expense load. Because the contractor separately computes pension costs by segment, or aggregation of segments, the applicability of 9904.412-50(b)(7)(i) is determined separately for Segment 1 and Segments 2 through 7. See Table 5, which shows the application of the provisions of 9904.412-50(b)(7)(i), i.e., the CAS pension harmonization test.

Table 5

CAS Pension Harmonization Test at January 1, 2017

	Total Plan	Segment 1	Segments 2 through 7	Notes
	(Note 1)	(Note 2)	(Note 2)	
"Going Concern" Liability for Period:				3
Actuarial Accrued Liability		$ 2,100,000	$ 14,225,000	4
Normal Cost		89,100	821,600	4
Expense Load on Normal Cost		-	-	4, 5
Total Liability for Period		$ 2,189,100	$ 15,046,600	
Minimum Liability for Period:				
Minimum Actuarial Liability		$ 2,594,000	$ 14,042,000	6
Minimum Normal Cost		102,000	840,700	6
Expense Load on Minimum Normal Cost		8,840	73,160	6, 7

Total Minimum Liability for Period		$ 2,704,840	$ 14,955,860	

Note 1: Because the contractor determines pension costs separately for Segment 1 and Segments 2 through 7, the data for the Total Plan is not needed for purposes of the 9904.412-50(b)(7)(i) determination.

Note 2: Because the contractor determines pension cost separately for Segment 1 and Segments 2 through 7, the 9904.412-50(b)(7) CAS Pension Harmonization test is applied at the segment level to determine the larger of the Total Liability for Period or the Total Minimum Liability for Period. For Segment 1, the larger Total Minimum Liability for Period determines the measurement basis for the liability and normal cost. For Segments 2 through 7, the larger Total Liability for Period determines the measurement basis for the liability and normal cost.

Note 3: The actuarial accrued liability and normal cost plus any expense load are computed using interest assumptions based on long-term expectations in accordance with 9904.412-40(b)(2) and 9904.412-50(b)(4). For purposes of Illustration 9904.412-60.1(b), the sum of these amounts are referred to as the "Going Concern" Liability for the Period.

Note 4: See Table 3.

Note 5: Because the contractor's assumed interest rate implicitly recognizes expected administrative expenses there is no explicit amount added to the normal cost.

Note 6: See Table 4.

Note 7: The contractor explicitly identifies the expected expenses as a separate component of the minimum normal cost, as required by 9904.412-50(b)(7)(ii)(B).

(ii) As shown in Table 5 for Segment 1, the total minimum liability for the period (minimum actuarial liability and minimum normal cost) of $2,704,840 exceeds the total liability for the period (actuarial accrued liability and normal cost) of $2,189,100. Therefore, the contractor must measure the pension cost for Segment 1 using the minimum actuarial liability and minimum normal cost as the values of the actuarial accrued liability and normal cost in accordance with 9904.412-50(b)(7)(i). In other words, the contractor substitutes the minimum actuarial liability and minimum normal cost for the actuarial accrued liability and normal cost.

(iii) Conversely, as shown in Table 5 for Segments 2 through 7, the total liability for the period of $15,046,600 exceeds the total minimum liability for the period of $14,955,860 for Segments 2 through 7. Therefore, the contractor must measure the pension cost using the actuarial accrued liability and normal cost without regard for the minimum actuarial liability and minimum normal cost.

(4) Measurement of Current Period Pension Cost:

(i) To determine the pension cost for Segment 1, the contractor measures the unfunded actuarial liability, pension cost without regard to 9904.412-50(c)(2) limitations, and the assignable cost limitation using the actuarial accrued liability and normal cost as measured by the minimum actuarial liability and minimum normal cost, respectively, which are based on the accrued benefit cost method. This measurement complies with the requirements of 9904.412-50(b)(7) and the definition of actuarial accrued liability, 9904.412-30(a)(2) and normal cost, 9904.412-30(a)(18).

(ii) To determine the pension cost for Segments 2 through 7, the contractor measures the unfunded actuarial liability, pension cost without regard to 9904.412-50(c)(2) limitations, and the assignable cost limitation using the actuarial accrued liability and normal cost based on the projected unit credit cost method, which is the contractor's established cost accounting method and the contractor's assumed interest rate based on long-term trends as required by 9904.412-50(b)(4).

(iii) Unfunded Actuarial Liability (Table 6):

Table 6

Unfunded Actuarial Liability as of January 1, 2017

	Total Plan	Segment 1	Segments 2 through 7	Notes
	(Note 1)			
Actuarial Accrued Liability	$ 16,819,000	$ 2,594,000	$ 14,225,000	2
CAS Actuarial Value of Assets	(13,561,685)	(1,688,757)	(11,872,928)	3
Unfunded Actuarial Liability	$ 3,257,315	$ 905,243	$ 2,352,072	

Note 1: Because the contractor determines pensions separately for Segment 1 and Segments 2 through 7, the values are the sum of the values for Segment 1 and Segments 2 through 7.

Note 2: For Segment 1, the actuarial accrued liability is measured by the accrued benefit cost method as required by 9904.412-50(b)(7), i.e., the minimum actuarial liability as described in 9904.412-50(b)(7)(ii). See Table 4. For Segments 2 through 7, the actuarial accrued liability is measured by the projected unit credit cost method, which is the contractor's established actuarial cost method since these the 9904.412-50(b)(7)(i) criterion was not met for these segments. See Table 3.

Note 3: See Table 2. The CAS Actuarial Value of Assets is used regardless of the basis for determining the liabilities. The CAS Actuarial Value of Assets allocated to Segment 1 and Segments 2 through 7 excludes the accumulated value of prepayment credits as required by 9904.412-50(a)(4).

(iv) Measurement of the Adjusted Pension Cost (Table 7):

Table 7

Measurement of Pension Cost at January 1, 2017

	Total Plan	Segment 1	Segments 2 through 7	Notes
	(Note 1)			
Normal Cost		$ 102,000	$ 821,600	2
Expense Load on Normal Cost		8,840	-	2, 3
Amortization Installments		140,900	366,097	4
Measured Pension Cost	$ 1,439,437	$ 251,740	$ 1,187,697	

Note 1: Because the contractor separately computes pension cost for Segment 1 and Segments 2 through 7, only the total pension cost is shown.

Note 2: For Segment 1, the normal cost is measured by the accrued benefit cost method as required by 9904.412-50(b)(7), i.e., the minimum normal cost as described in 9904.412-50(b)(7)(ii). See Table 4. For Segments 2 through 7, the normal cost is measured by the contractor's established immediate gain cost method since these the 9904.412-50(b)(7)(i) criterion was not met for these segments. See Table 3.

Note 3: Because the criterion of 9904.412-50(b)(7)(i) was met for Segment 1, the Normal Cost is measured by the Minimum Normal Cost, which explicitly identifies the expected expenses as a separate component of the minimum normal cost in accordance with 9904.412-50(b)(7)(ii)(B). See Table 4. For Segments 2 through 7, the normal cost is measured by the contractor's established immediate gain cost method, which implicitly recognizes expenses as a decrement to expected assumed interest rate, since the 9904.412-50(b)(7)(i) criterion was not met for these segments. See Table 3.

Note 4: Net amortization installment based on the unfunded actuarial liability of $3,257,315 ($905,243 for Segment 1, and $2,352,072 for Segments 2 through 7) and the contractor's assumed interest rate in compliance with 9904.412-40(b)(2) and 9904.412-50(b)(4). See Table 6.

(c) Assignment of Pension Cost. In 9904.412-60.1(b), the Harmony Corporation measured the total pension cost to be $1,439,437 ($251,740 for Segment 1 and $1,187,697 for Segments 2 through 7). The contractor must now determine if any of the limitations of 9904.412-50(c)(2) apply at the segment level.

(1) Zero Dollar Floor: The contractor compares the measured pension cost to a zero dollar floor as required by 9904.412-50(c)(2)(i). In this case, the measured pension cost is greater than zero and no assignable cost credit is established. See Table 8.

Table 8

CAS 412-50(c)(2)(i) Zero Dollar Floor as of January 1, 2017

	Total Plan	Segment 1	Segments 2 through 7	Notes
	(Note 1)			
Measured Pension Cost ≥ $0		$ 251,740	$ 1,187,697	2
Assignable Cost Credit		$ -	$ -	3

Note 1: Because the provisions of CAS 412-50(c)(2)(i) are applied at the segment level, no values are shown for the Total Plan.

Note 2: See Table 7. The Assignable Pension Cost in accordance with 9904.412-50(c)(2)(i) is the greater of zero or the Harmonized Pension Cost.

Note 3: There is no Assignable Cost Credit since the Measured Pension Cost is greater than zero.

(2) Assignable Cost Limitation:

(i) As required by 9904.412-50(c)(2)(ii), the contractor measures the assignable cost limitation amount. The pension cost assigned to the period cannot exceed the assignable cost limitation amount. Because the measured pension cost for Segment 1 met the harmonization criterion of 9904.412-50(b)(7)(i), the assignable cost limitation is based on the sum of the actuarial accrued liability and normal cost plus expense load, using the accrued benefit cost method in accordance with 9904.412-50(b)(7)(ii). Therefore, the actuarial accrued liability and normal cost plus expense load are measured by the minimum actuarial liability and minimum normal cost plus expense load. See Table 9.

Table 9

CAS 412-50(c)(2)(ii) Assignable Cost Limitation as of January 1, 2017

	Total Plan	Segment 1	Segments 2 through 7	Notes
	(Note1)			
Actuarial Accrued Liability		$ 2,594,000	$ 14,225,000	2
Normal Cost		102,000	821,600	3
Expense Load on Normal Cost		8,840	-	4
Total Liability for Period		$ 2,704,840	$ 15,046,600	
CAS Actuarial Value of Plan Assets		(1,688,757)	(11,872,928)	5
(A) Assignable Cost Limitation Amount		$ 1,016,083	$ 3,173,672	6
(B) 412-50(c)(2)(i) Assigned Cost		$ 251,740	$ 1,187,697	7
(C) 412-50(c)(2)(ii) Assigned Cost	$ 1,439,437	$ 251,740	$ 1,187,697	8

Note 1: Because the assignable cost limitation is applied at the segment level when pension costs are separately calculated by segment or aggregation of segments, no values are shown for the Total Plan other than the Assigned Cost after consideration of the Assignable Cost Limit.

Note 2: For Segment 1, the actuarial accrued liability is measured by the accrued benefit cost method as required by 9904.412-50(b)(7), i.e., the minimum actuarial liability as described in 9904.412-50(b)(7)(ii)(A). See Table 4. For Segments 2 through 7, the actuarial accrued liability is measured by the contractor's established immediate gain cost method since these the 9904.412-50(b)(7)(i) criterion was not met for these segments. See Table 3.

Note 3: For Segment 1, the normal cost is measured by the accrued benefit cost method as required by 9904.412-50(b)(7), i.e., the minimum normal cost as described in 9904.412-50(b)(7)(ii)(B). See Table 4. For Segments 2 through 7, the normal cost is measured by the contractor's established immediate gain cost method since these the 9904.412-50(b)(7)(i) criterion was not met for these segments. See Table 3.

Note 4: For Segment 1, the normal cost is measured by the accrued benefit cost method as required by 9904.412-50(b)(7), i.e., the minimum normal cost as described in 9904.412-50(b)(7)(ii)(B), which explicitly identifies the expected expenses as a separate component of the minimum normal cost. See Table 4. For Segments 2 through 7, the normal cost is measured by the contractor's established immediate gain cost method, which implicitly recognizes expenses as a decrement to the assumed interest rate since these the 9904.412-50(b)(7)(i) criterion was not met for these segments. See Table 3.

Note 5: See Table 2. The CAS Actuarial Value of Assets is used regardless of the basis for determining the liabilities. The CAS Actuarial Value of Assets allocated to Segment 1 and Segments 2 through 7 excludes the accumulated value of prepayment credits as required by 9904.412-50(a)(4).

Note 6: The Assignable Cost Limitation cannot be less than $0.

Note 7: See Illustration 9904.412-60.1(c)(1), Table 8.

Note 8: Lesser of lines (A) or (B).

(ii) As shown in Table 9, the contractor determines that the measured pension costs for Segment 1 and Segments 2 through 7 do not exceed the assignable cost limitation and are not limited.

(3) Measurement of Tax-Deductible Limitation on Assignable Pension Cost:

(i) Finally, after limiting the measured pension cost in accordance with 9904.412-50(c)(2)(i) and (ii), the contractor checks to ensure that the total assigned pension cost will not exceed $15,674,697, which is the sum of the maximum tax-deductible contribution ($15,014,300), which is developed in the actuarial valuation prepared for ERISA, and the accumulated value of prepayment credits ($660,397) shown in Table 1. Since the tax-deductible contribution and accumulated value of prepayment credits are maintained for the plan as a whole, these values are allocated to segments based on the assignable pension cost after adjustment, if any, for the assignable cost limitation in accordance with 9904.413-50(c)(1)(ii). See Table 10.

Table 10

CAS 412-50(c)(2)(iii) Tax-Deductible Limitation as of January 1, 2017

	Total Plan	Segment 1	Segments 2 through 7	Notes
Maximum Tax-deductible Amount	$ 15,014,300	$ 2,625,818	$ 12,388,482	1, 2

Accumulated Prepayment Credits	660,397	115,495	544,902	3, 4
(A) 412-50(c)(2)(iii) Limitation	$ 15,674,697	$ 2,741,313	$ 12,933,384	
(B) 412-50(c)(2)(ii) Assigned Cost	$ 1,439,437	$ 251,740	$ 1,187,697	5
Assigned Pension Cost	$ 1,439,437	$ 251,740	$ 1,187,697	6

Note 1: The Maximum Deductible Amount for the Total Plan is obtained from the valuation report prepared for ERISA purposes.

Note 2: The Maximum Tax-deductible Amount for the Total Plan is allocated to segments based on the assigned cost after application of 9904.412-50(c)(2)(ii) in accordance with 9904.413-50(c)(1)(i) for purposes of this assignment limitation test.

Note 3: The Accumulated Prepayment Credits for the Total Plan are allocated to segments based on the assigned cost after application of 9904.412-50(c)(2)(ii) in accordance with 9904.413-50(c)(1)(i) for purposes of this assignment limitation test.

Note 4: See Table 1.

Note 5: See Table 9

Note 6: Lesser of lines (A) or (B).

(ii) For Segment 1, the assignable pension cost of $251,740, measured after considering the assignable cost limitation, does not exceed the 9904.412-50(c)(2)(iii) limit of $2,716,649. For Segments 2 through 7, the assignable pension cost of $1,187,697, measured after considering the assignable cost limitation, does not exceed the 9904.412-50(c)(2)(iii) limit of $12,958,048.

(d) Actuarial Gain and Loss – Change in Liability Basis.

(1) Assume the same facts shown in 9904.412-60.1(b) for Segment 1 of the Harmony Corporation for 2017. Table 11 shows the actuarial liabilities and normal costs plus any expense loads for Segment 1 for 2016 through 2018.

Table 11

Summary of Liabilities for Segment 1 as of January 1				
	2016	2017	2018	Notes

"Going Concern" Liabilities for the Period				
Actuarial Accrued Liability	$ 1,915,000	$ 2,100,000	$2,305,000	1
Normal Cost	89,600	89,100	99,500	1
Expense Load on Normal Cost	-	-	-	1, 2
Total Liability for Period	$ 2,004,600	$ 2,189,100	$2,404,500	
Minimum Liabilities for the Period				
Minimum Actuarial Liability	$ 1,901,000	$ 2,594,000	$2,212,000	3
Minimum Normal Cost	83,800	102,000	96,500	3
Expense Load on Minimum Normal Cost	8,300	8,840	9,300	3, 4
Total Minimum Liability for Period	$ 1,993,100	$ 2,704,840	$2,317,800	
Interest Basis as Determined by Segment's Liabilities for Period	9904.412-50(b)(4)	9904.412-50(b)(7)(iii)	9904.412-50(b)(4)	5

Note 1: See Table 3 for 2017 values. For 2016 and 2018, the data for Segment 1 is taken directly from the actuarial valuation report prepared for CAS 412 and 413 purposes and supporting documentation, including subtotals of the data by segment.

Note 2: Because the contractor's interest assumption, which satisfies the requirements of 9904.412-40(b)(2) and 9904.412-50(b)(4), implicitly recognizes expected administrative expenses there is no explicit amount shown for the normal cost.

Note 3: See Table 4 for 2017 values. For 2016 and 2018, the data for Segment 1 is taken directly from the actuarial valuation report prepared for ERISA purposes and supporting documentation, including subtotals of the data by segment. The values for 2016 are based on the transitional minimum actuarial liability and transitional minimum normal cost measured in accordance with 9904.412-64.1(a) and (b).

Note 4: For purposes of determining minimum normal cost, the contractor explicitly identifies the expected administrative expense as a separate component as required by 9904.412-50(b)(7)(ii)(B).

Note 5: For determining the pension cost for the period, the measurements are based on the actuarial accrued liability and normal cost unless the total minimum liability for the period exceeds the "Going Concern" total liability for the period. The measurement basis was separately determined for each segment in accordance with 9904.412-50(b)(7)(i).

(2) For 2016, the sum of the minimum actuarial liability and minimum normal cost does not exceed the sum of the actuarial accrued liability and normal cost. Therefore the criterion of 9904.412-50(b)(7)(i) is not met, and the actuarial accrued liability and normal cost are used to compute the pension cost for 2016. For 2017, the sum of the minimum actuarial liability and minimum normal cost exceeds the sum of the actuarial accrued liability and normal cost, and therefore the pension cost is computed using minimum actuarial liability and minimum normal cost as required by 9904.412-50(b)(7)(i). For 2018, the sum of the minimum actuarial liability and minimum normal cost does not exceed the sum of the actuarial accrued liability and normal cost, and the actuarial accrued liability and normal cost are used to compute the pension cost for 2018 because the criterion of 9904.412-50(b)(7)(i) is not met. Table 12 shows the measurement of the unfunded actuarial liability for 2016 through 2018.

Table 12

Unfunded Actuarial Liability for Segment 1 as of January 1				
	2016	2017	2018	Notes
Current Year Actuarial Liability Basis	9904.412-50(b)(4)	9904.412-50(b)(7)(iii)	9904.412-50(b)(4)	1
Actuarial Accrued Liability	$ 1,915,000	$ 2,594,000	$ 2,305,000	1
CAS Actuarial Value of Assets	(1,500,000)	(1,688,757)	(1,894,486)	2
Unfunded Actuarial Liability (Actual)	$ 415,000	$ 905,243	$ 410,514	

Note 1: See Table 11.

Note 2: The 2017 CAS Actuarial Value of Assets is developed in Table 2. For 2016 and 2018, the Actuarial Value of Assets for Segment 1 is taken directly from the actuarial valuation report prepared for CAS 412 and 413 purposes and supporting documentation.

(3) Except for changes in the value of the assumed interest rate used to measure the minimum actuarial liability and minimum normal cost, there were no changes to the pension plan's actuarial assumptions or actuarial cost methods during the period of 2016 through 2018. The contractor's actuary measured the expected unfunded actuarial liability and determined the actuarial gain or loss for 2017 and 2018 as shown in Table 13.

Table 13

Measurement of Actuarial Gain or Loss for Segment 1 as of January 1				
	2016	2017	2018	Notes
Actual Unfunded Actuarial Liability	(Note 1)	$ 905,243	$ 410,514	2
Expected Unfunded Actuarial Liability		(381,455)	(848,210)	3
Actuarial Loss (Gain)		$ 523,788	$ (437,696)	

Note 1: The determination of the actuarial gain or loss that occurred during 2015 and measured on 2016 is outside the scope of this Illustration.

Note 2: See Table 12.

Note 3: Information taken directly from the actuarial valuation report prepared for CAS 412 and 413 purposes and supporting documentation. The expected unfunded actuarial liability is based on the prior unfunded actuarial liability updated based on the assumed interest rate in compliance with 9904.412-40(b)(2) and 9904.412-50(b)(4). Note that in accordance with 9904.412-50(b)(7)(iii)(D), the corporate bond yield rate is only used to determine the minimum actuarial liability but not to adjust the liability for the passage of time.

(4) According to the actuarial valuation report, the 2017 actuarial loss of $523,788 includes a $494,000 actuarial loss due to a change in measurement basis from using an actuarial accrued liability of $2,100,000 to using a minimum actuarial liability of $2,594,000, including the effect of any change in the interest rate basis. (See Table 11 for the actuarial accrued liability and the minimum actuarial liability.) The $494,000 loss ($2,594,000 - $2,100,000) due to the change in the liability basis is amortized as part of the total actuarial loss of $523,788 over a ten-year period in accordance with 9904.412-50(a)(1)(v) and 9904.413-50(a)((2)(ii). Similarly, the next year's valuation report shows a 2018 actuarial gain of $437,696, which includes a $93,000 actuarial gain ($2,305,000 - $2,212,000) due to a change from a minimum actuarial liability back to a an actuarial accrued liability basis, which includes the effect of any change in interest rate basis. The $93,000 gain due the change in the liability basis will be amortized as part of the total $437,696 actuarial gain over a ten-year period in accordance with 9904.412-50(a)(1) and 9904.413-50(a)(2)(ii).

9904.412-61 Interpretation. [Reserved]

9904.412-62 Exemption.

None for this Standard.

9904.412-63 Effective date.

(a) This Standard is effective as of February 27, 2012, hereafter known as the "Effective Date," and is applicable for cost accounting periods after June 30, 2012, hereafter known as the "Implementation Date."

(b) Following receipt of a contract or subcontract subject to this Standard on or after the Effective Date, contractors shall follow this Standard, as amended, beginning with its next cost accounting period beginning after the later of the Implementation Date or the receipt date of a contract or subcontract to which this Standard is applicable in accordance with paragraph (a) of this section. The first day of the cost accounting period that this Standard, as amended, is first applicable to a contractor or subcontractor is the "Applicability Date of the CAS Pension Harmonization Rule" for purposes of this Standard. Prior to the Applicability Date of the CAS Pension Harmonization Rule, contractors or subcontractors shall follow the Standard in 9904.412 in effect prior to the Effective Date.

(1) Following the award of a contract or subcontract subject to this Standard received on or after the Effective Date, contractors with contracts or subcontracts subject to this Standard that were received prior to the Effective Date shall continue to follow the Standard in 9904.412 in effect prior to the Effective Date. Beginning with the Applicability Date of the CAS Pension Harmonization Rule, such contractors shall follow this Standard, as amended, for all contracts or subcontracts subject to this Standard.

(2) Following the award of a contract or subcontract subject to this Standard received during the period beginning on or after the date published in the Federal Register and ending before the Effective Date, contractors shall follow the Standard in 9904.412 in effect prior to the Effective Date. If another contract or subcontract, subject to this Standard, is received on or after the Effective Date, the provisions of 9904.412-63(b)(1) shall apply.

9904.412-64 Transition Method.

To be acceptable, any method of transition from compliance with Standard 9904.412 in effect prior to March 30, 1995, to compliance with the Standard effective March 30, 1995, must follow the equitable principle that costs, which have been previously provided for, shall not be redundantly provided for under revised methods. Conversely, costs that have not previously been provided for must be provided for under the revised method. This transition subsection is not intended to qualify for purposes of assignment or allocation of pension costs which have previously been disallowed for reasons other than ERISA tax-deductibility limitations. The sum of all portions of unfunded actuarial liability identified pursuant to Standard 9904.412, effective March 30, 1995, including such portions of unfunded actuarial liability determined for transition purposes, is subject to the provisions of 9904.412-40(c) on requirements for assignment. The method, or methods, employed to achieve an equitable transition shall be consistent with the provisions of Standard 9904.412, effective March 30, 1995, and shall be approved by the contracting officer. Examples and illustrations of such transition methods include, but are not limited to, the following:

(a) Reassignment of certain prior unfunded accruals.

(1) Any portion of pension cost for a qualified defined-benefit pension plan, assigned to a cost accounting period prior to March 30, 1995, which was not funded because such cost exceeded the maximum tax-deductible amount, determined in accordance with ERISA, shall be assigned to subsequent accounting periods, including an adjustment for interest, as an assignable cost deficit. However, such costs shall be assigned to periods on or after March 30, 1995, only to the extent that such costs have not previously been allocated as cost or price to contracts subject to this Standard.

(2) Alternatively, the transition method described in paragraph (d) of this subsection may be applied separately to costs subject to paragraph (a)(1) of this subsection.

(b) Reassignment of certain prior unallocated credits.

(1) Any portion of pension cost for a defined-benefit pension plan, assigned to a cost accounting period prior to March 30, 1995, which was not allocated as a cost or price credit to contracts subject to this Standard because such cost was less than zero, shall be assigned to subsequent accounting periods, including an adjustment for interest, as an assignable cost credit.

(2) Alternatively, the transition method described in paragraph (d) of this subsection may be applied separately to costs subject to paragraph (b)(1) of this subsection.

(c) Accounting for certain prior allocated unfunded accruals. Any portion of unfunded pension cost for a nonqualified defined-benefit pension plan, assigned to a cost accounting period prior to March 30, 1995, that was allocated as cost or price to contracts subject to this Standard, shall be recognized in subsequent accounting periods, including adjustments for imputed interest and benefit payments, as an accumulated value of permitted unfunded accruals.

(d) "Fresh start" alternative transition method. The transition methods of paragraphs (a)(1), (b)(1), and (c) of this subsection may be implemented using the so-called "fresh start" method whereby a portion of the unfunded actuarial liability of a defined-benefit pension plan, which occurs in the first cost accounting period after March 30, 1995, shall be treated in the same manner as an actuarial gain or loss. Such portion of unfunded actuarial liability shall exclude any portion of unfunded actuarial liability that must continue to be separately identified and maintained in accordance with 9904.412-50(a)(2), including interest adjustments. If the contracting officer already has approved a different amortization period for the fresh start amortization, then such amortization period shall continue.

(e) Change to pay-as-you-go method. A change in accounting method subject to 9903.302 will have occurred whenever costs of a nonqualified defined-benefit pension plan have been accounted for on an accrual basis prior to March 30, 1995, and the contractor must change to the pay-as-you-go cost method because the plan does not meet the requirement of 9904.412-50(c)(3), either by election or otherwise. In such case, any portion of unfunded pension cost, assigned to a cost accounting period prior to March 30, 1995, that was allocated as cost or price to contracts subject to this Standard, shall be assigned to future accounting periods, including adjustments for imputed interest and benefit payments, as an accumulated value of permitted unfunded accruals. Costs computed under the pay-as-you-go cost method shall be charged against such accumulated value of permitted unfunded accruals before such costs may be allocated to contracts.

(f) Actuarial assumptions. The actuarial assumptions used to calculate assignable cost deficits, assignable cost credits, or accumulated values of permitted unfunded accruals for transition purposes shall be consistent with the long term assumptions used for valuation purposes for such prior periods unless the contracting officer has previously approved the use of other reasonable assumptions.

(g) Transition illustrations. Unless otherwise noted, paragraphs (g)(1) through (9) of this subsection address pension costs and transition amounts determined for the first cost accounting period beginning on or after the date this revised Standard becomes applicable to a contractor. For purposes of these illustrations an interest assumption of 7% is presumed to be in effect for all periods.

(1) For the cost accounting period immediately preceding the date this revised Standard becomes applicable to a contractor, Contractor S computed and assigned pension cost of $1 million for a qualified defined-benefit pension plan. The contractor made a contribution equal to the maximum tax-deductible amount of $800,000 for the period leaving $200,000 of assigned cost unfunded for the period. Except for this $200,000, no other assigned pension costs have ever been unfunded or otherwise disallowed. Using the transition method of paragraph (a)(1) of this subsection, the contractor shall establish an assignable cost deficit equal to $214,000 ($200,000 x 1.07), which is the prior unfunded assigned cost plus interest. If this assignable cost deficit amount, plus all other portions of unfunded actuarial liability identified in accordance with 9904.412-50(a)(1) and (2), equal the total unfunded actuarial liability, pension cost may be assigned to the current period.

(2) Assume that Contractor S in 9904.412-64(g)(1) priced the entire $1 million into firm fixed-price contracts. In this case, no assignable cost deficit amount may be established. In addition, the $214,000 ($200,000 x 1.07) shall be separately identified and maintained in accordance with 9904.412-50(a)(2). If all portions of unfunded actuarial liability identified in

accordance with 9904.412-50(a)(1) and (2), equal the total unfunded actuarial liability, pension cost may be assigned to the period.

(3) Assume the same facts as in 9904.412-64(g)(1), except Contractor S only funded and allocated $500,000. The $300,000 of assigned cost that was not funded, but could have been funded without exceeding the tax-deductible maximum, may not be recognized as an assignable cost deficit. Instead, the $300,000 must be separately identified and maintained in accordance with 9904.412-50(a)(2). If the $321,000 ($300,000 x 1.07) plus the $214,000 already identified as an assignable cost deficit plus all other portions of unfunded actuarial liability identified in accordance with 9904.412-50(a)(1) and (2), equal the total unfunded actuarial liability, pension cost may be assigned to the period.

(4) Assume that, for Contractor S in 9904.412-64(g)(3), the only portion of unfunded actuarial liability that must be identified under 9904.412-50(a)(2) is the $321,000. If Contractor S chooses to use the "fresh start" transition method, the $321,000 of unfunded assigned cost must be subtracted from the total unfunded actuarial liability in accordance with 9904.412-64~~63~~(d). The net amount of unfunded actuarial liability shall then be amortized over a period of fifteen years as an actuarial loss in accordance with 9904.412-50(a)(1)(v) and Cost Accounting Standard 9904.413.

(5) For the cost accounting period immediately preceding the date this revised Standard becomes applicable to a contractor, Contractor T computed and assigned pension cost of negative $400,000 for a qualified defined-benefit plan. Because the contractor could not withdraw assets from the trust fund, the contracting officer agreed that instead of allocating a current period credit to contracts, the negative costs would be carried forward, with interest, and offset against future pension costs allocated to the contract. Using the transition method of paragraph (b)(1) of this subsection, the contractor shall establish an assignable cost credit equal to $428,000 ($400,000 x 1.07). If this assignable cost credit amount, plus all other portions of unfunded actuarial liability identified in accordance with 9904.412-50(a)(1) and (2), equals the total unfunded actuarial liability, pension cost may be assigned to the period.

(6) Assume that in 9904.412-64(g)(5), following guidance issued by the contracting agency the contracting officer had deemed the cost for the prior period to be $0. In order to satisfy the requirements of 9904.412-40(c) and assign pension cost to the current period, Contractor S must account for the prior period negative accruals that have not been specifically identified. Following the transition method of paragraph (b)(1) of this subsection, the contractor shall identify $428,000 as an assignable cost credit.

(7) Assume the facts of 9904.412-64(g)(5), except Contractor S uses the "fresh start" transition method. In addition, for the current period the plan is overfunded since the actuarial

value of the assets is greater than the actuarial accrued liability. In this case, an actuarial gain equal to the negative unfunded actuarial liability; i.e., actuarial surplus, is recognized since there are no portions of unfunded actuarial liability that must be identified under 9904.412-50(a)(2).

(8) Since March 28, 1989 Contractor U has computed, assigned, and allocated pension costs for a nonqualified defined-benefit plan on an accrual basis. The value of these past accruals, increased for imputed interest at 7% and decreased for benefits paid by the contractor, is equal to $2 million as of the beginning of the current period. Contractor U elects to establish a "Rabbi trust" and the plan meets the other criteria at 9904.412-50(c)(3). Using the transition method of paragraph (c) of this subsection, Contractor U shall recognize the $2 million as the accumulated value of permitted unfunded accruals, which will then be included in the market value and actuarial value of the assets. Because the accumulated value of permitted unfunded accruals is exactly equal to the current period market value of the assets, 100% of benefits for the current period must be paid from sources other than the funding agency in accordance with 9904.412-50(d)(2)(ii).

(9) Assume that Contractor U in 9904.412-64(g)(8) establishes a funding agency, but elects to use the pay-as-you-go method for current and future pension costs. Furthermore, plan participants receive $500,000 in benefits on the last day of the current period. Using the transition method of paragraph (e) of this subsection to ensure prior costs are not redundantly provided for, the contractor shall establish assets; i.e., an accumulated value of permitted unfunded accruals, of $2 million. Since these assets are sufficient to provide for the current benefit payments, no pension costs can be allocated in this period. Furthermore, previously priced contracts subject to this Standard shall be adjusted in accordance with 9903.302. The accumulated value of permitted unfunded accruals shall be carried forward to the next period by adding $140,000 (7% x $2 million) of imputed interest, and subtracting the $500,000 of benefit payments made by the contractor. The accumulated value of permitted unfunded accruals for the next period equals $1,640,000 ($2 million + $140,000 - $500,000).

9904.412-64.1 Transition Method for Pension Harmonization Rule.

Contractors or subcontractors that become subject to the Standard, as amended, during the Pension Harmonization Transition Period shall recognize the change in cost accounting method in accordance with paragraphs (a) and (b).

(a) The Pension Harmonization Rule Transition Period is the five cost accounting periods beginning with a contractor’s first cost accounting period beginning after June 30, 2012, and is independent of the receipt date of a contract or subcontract subject to this Standard. The Pension Harmonization Rule Transition Period begins on the first day of a contractor’s first cost accounting period that begins after June 30, 2012.

(b) Phase in of the Minimum Actuarial Liability and Minimum Normal Cost. During each successive accounting period of Pension Harmonization Rule Transition Period, the contractor shall recognize on a scheduled basis the amount by which the minimum actuarial liability differs from the actuarial accrued liability; and the amount by which the sum of the minimum normal cost plus any expense load differs from the sum of the normal cost plus any expense load.

(1) For purposes of determining the amount of the difference, the minimum actuarial liability and minimum normal cost shall be measured in accordance with 9904.412-50(b)(7)(ii).

(2) During each successive accounting period of the Pension Harmonization Rule Transition Period, the transitional minimum actuarial liability shall be set equal to the actuarial accrued liability adjusted by an amount equal to the difference between the minimum actuarial liability and actuarial accrued liability, multiplied by the scheduled applicable percentage for that period. The sum of the transitional minimum normal cost plus any expense load shall be set equal to the sum of normal cost plus any expense load, adjusted by an amount equal to the difference between the minimum normal cost and the normal cost, plus expense loads, multiplied by the scheduled applicable percentage for that period.

(3) The scheduled applicable percentages for each successive accounting period of the Pension Harmonization Rule Transition Period are as follows: 0% for the First Cost Accounting Period, 25% for the Second Cost Accounting Period, 50% for the Third Cost Accounting Period, 75% for the Fourth Cost Accounting Period, and 100% for the Fifth Cost Accounting Period.

(4) The transitional minimum actuarial liability and transitional minimum normal cost measured in accordance with this provision shall be used for purposes of the 9904.412-50(b)(7) minimum actuarial liability and minimum normal cost.

(5) The actuarial gain or loss attributable to experience since the prior valuation, measured as of the First Cost Accounting Period of the Pension Harmonization Rule Transition Period, shall be amortized over a ten-year period in accordance with 9904.413-50(a)(2)(ii).

(c) Transition Illustration. Assume the same facts for the Harmony Corporation in Illustration 9904.412-60.1(a) and (b), except that this is the Fourth Cost Accounting Period of the Pension Harmonization Rule Transition Period. As in Illustration 9904.412-60.1(a) and (b), the contractor separately computes pension costs for Segment 1, and computes pension costs for Segments 2 through 7 in the aggregate. The contractor has two actuarial valuations prepared: one measures the actuarial accrued liability and normal cost using the contractor's expected rate of return on investments assumption, in accordance with 9904.412-40(b)(2) and 9904.412-

50(b)(4), and the other valuation measures the minimum actuarial liability and minimum normal cost based on the assumed current yields on investment quality corporate bonds in accordance with 9904.412-50(b)(7)(iii)(A). The actuarial valuations present the values subtotaled for each segment and in total for the plan as a whole.

(1) The contractor applies 9904.412-64.1(b) as follows:

(i) (A) For Segment 1, the $494,000 ($2,594,000 - $2,100,000) difference between the minimum actuarial liability and the actuarial accrued liability is multiplied by 75%. Therefore for Segment 1, the minimum actuarial liability for purposes of 9904.412-50(b)(7) is adjusted to a transitional minimum actuarial liability of $2,470,500 ($2,100,000 + [75% x $494,000]).

(B) For Segments 2 through 7, the ($183,000) difference ($14,042,000 - $14,225,000) between the minimum actuarial liability and the actuarial accrued liability is multiplied by 75%. For Segment 2 through 7, the minimum actuarial liability for purposes of 9904.412-50(b)(7) is adjusted to a transitional minimum actuarial liability of $14,115,200 ($14,087,750 + [75% x ($183,000)]).

(C) The computation of the transitional minimum actuarial liability that incrementally recognizes the difference between the minimum actuarial liability and the actuarial accrued liability for Segment 1, and for Segments 2 through 7, is shown in Table 1 below:

Table 1

Development of Transitional Minimum Actuarial Liability for Fourth Transition Period

	Total Plan	Segment 1	Segments 2 through 7	Notes
	(Note 1)			
Minimum Actuarial Liability		$ 2,594,000	$ 14,042,000	2
Actuarial Accrued Liability		(2,100,000)	(14,225,000)	3
Difference		$ 494,000	$ (183,000)	4
Phase In Percentage (Period 4)		75%	75%	5
Phase In Liability Difference		$ 370,500	$ (137,250)	6
Actuarial Accrued Liability		2,100,000	14,225,000	6
Transitional Minimum Actuarial Liability		$ 2,470,500	$ 14,087,750	

Note 1: The values for the Total Plan are not shown because the 9904.412-50(b)(7)(i) threshold criterion is applied separately for each segment.

Note 2: See Illustration 9904.412-60.1(b)(2)(ii), Table 4.

Note 3: See Illustration 9904.412-60.1(b)(2)(i), Table 3.

Note 4: The phase in percentage will be applied to positive or negative differences in the actuarial liabilities, since the purpose of the phase in is to incrementally move the measurement away from the actuarial accrued liability to the minimum actuarial liability, regardless of the direction of the movement.

Note 5: Appropriate transition percentage for the Fourth Cost Accounting Period of the Pension Harmonization Rule Transition Period as stipulated in 9904.412-64.1(b)(3).

Note 6: The actuarial accrued liability is adjusted by the phase in difference between liabilities, either positive or negative, in accordance with 9904.412-64.1(b)(2).

(ii) (A) For Segment 1, the $21,740 ($110,840 - $89,100) difference between the minimum normal cost and the normal cost, plus expense loads, is multiplied by 75%. Therefore for Segment 1, the minimum normal cost plus expense load, for purposes of 9904.412-50(b)(7), is adjusted to a transitional minimum normal cost plus expense load of $105,405 ($89,100 + [75% x $21,740]).

(B) For Segments 2 through 7, the 92,260 ($913,860 - $821,600) difference between the minimum normal cost and the normal cost, plus expense loads, is multiplied by 75%. Therefore, for Segment 2 through 7, the minimum normal cost for purposes of 9904.412-50(b)(7) is adjusted to a transitional minimum normal cost plus expense load of $890,795 ($821,600 + [75% x $92,260]).

(C) The computation of the transitional minimum normal cost plus expense load for Segment 1, and for Segments 2 through 7, is shown in Table 2 below:

Table 2

Development of Transitional Minimum Normal Cost for Fourth Transition Period

	Total Plan	Segment 1	Segments 2 through 7	Notes
Minimum Normal Cost	(Note 1)	$ 102,000	$ 840,700	2

Expense Load on Normal Cost		8,840	73,160	2,3
Minimum Normal Cost Plus Expense Load		$ 110,840	$ 913,860	2
Normal Cost Plus Expense Load		(89,100)	(821,600)	4
Difference		$ 21,740	$ 92,260	5
Phase In Percentage (Period 4)		75%	75%	6
Phase In Normal Cost Difference		$ 16,305	$ 69,195	7
Normal Cost Plus Expense Load		89,100	821,600	7
Transitional Minimum Normal Cost Plus Expense Load		$ 105,405	$ 890,795	

Note 1: The values for the Total Plan are not shown because the 9904.412-50(b)(7)(i) threshold criterion is applied separately for each segment.

Note 2: See Illustration 9904.412-60.1(b)(2)(ii), Table 4.

Note 3: For minimum normal cost valuation purposes, the contractor explicitly identifies the expected administrative expenses as a separate component of minimum normal cost.

Note 4: See Illustration 9904.412-60.1(b)(2)(i), Table 3. Expected expenses are implicitly recognized as part of the contractor's expected rate of return on investments assumption.

Note 5: The phase in percentage will be applied to positive and negative differences in the normal costs plus expense loads, since the purpose of the phase in is to incrementally move the measurement from the normal cost plus expense load, to the minimum normal cost plus expense load, regardless of the direction of the movement.

Note 6: Appropriate transition percentage for the Fourth Cost Accounting Period of the Pension Harmonization Rule Transition Period stipulated in 9904.412-64.1(b)(3).

Note 7: The sum of the normal cost plus expense load is adjusted by the phase in difference between normal costs, either positive or negative, in accordance with 9904.412-64.1(b)(2).

(2) The contractor applies the provisions of with 9904.412-50(b)(7)(i) using the transitional minimum actuarial liability and transitional minimum normal cost plus expense load, in accordance with 9904.412-64.1(b)(4).

(i) The comparison of the sum of the actuarial accrued liability and normal cost plus expense load, and the sum of the transitional minimum actuarial liability and minimum normal cost plus expense load, for Segment 1, and for Segments 2 through 7, is summarized in Table 3 below:

Table 3

Summary of Liability and Normal Cost Values for Fourth Transition Period

	Total Plan	Segment 1	Segments 2 through 7	Notes
	(Note 1)			
"Going Concern" Liabilities for Period:				
Actuarial Accrued Liability		$ 2,100,000	$ 14,225,000	2
Normal Cost Plus Expense Load		89,100	821,600	3
Total Liability for Period		$ 2,189,100	$ 15,046,600	
Transitional Minimum Liabilities for the Period:				
Transitional Minimum Actuarial Liability		$ 2,470,500	$ 14,087,750	1
Transitional Minimum Normal Cost Plus Expense Load		$ 105,405	$ 890,795	3
Total Transitional Minimum Liability for Period		$ 2,575,905	$ 14,978,545	4

Note 1: The values for the Total Plan are not shown because the 9904.412-50(b)(7)(i) threshold criterion is applied separately for each segment.

Note 2: See Table 1.

Note 3: See Table 2.

Note 4: If the threshold criterion is met, then the pension cost for the period is measured based on the Transitional Minimum Actuarial Liability and Transition Normal Cost Plus Expense Load.

(ii) For Segment 1, the Total Transitional Minimum Liability for the Period of $2,575,905 exceeds the total liability for the period of $2,189,100. (See Table 3.) Therefore, in accordance with 9904.412-50(b)(7)(i), the pension cost for Segment 1 is measured using the actuarial accrued liability and normal cost as measured by the transitional minimum actuarial liability and transitional minimum normal cost, which are based on the accrued benefit cost method. This measurement complies with the requirements of 9904.412-50(b)(7) and with the definition of actuarial accrued liability, 9904.412-30(a)(2), and normal cost, 9904.412-30(a)(18).

(iii) For Segments 2 through 7, the total liability for the period of $15,046,600 exceeds the Total Transitional Minimum Liability for the Period of $14,978,545. (See Table 3.) Therefore, in accordance with 9904.412-50(b)(7)(i), the pension cost for Segment 2 through 7 is measured using the actuarial accrued liability and normal cost, which are based on the projected benefit cost method.

(3) The contractor computes the pension cost for the period in accordance with the provisions of with 9904.412-50(b)(7)(i), which considers the transitional minimum actuarial liability and transitional minimum normal cost plus expense load, in accordance with 9904.412-64.1(b).

(i) The contractor computes the unfunded actuarial liability as shown in Table 4 below:

Table 4

Unfunded Actuarial Liability for Fourth Transition Period

	Total Plan	Segment 1	Segments 2 through 7	Notes
	(Note 1)			
Actuarial Accrued Liability		$ 2,470,500	$ 14,225,000	2
CAS Actuarial Value of Assets		(1,688,757)	(11,872,928)	3
Unfunded Actuarial Liability		$ 781,743	$ 2,352,072	

Note 1: The values for the Total Plan are not shown because the 9904.412-50(b)(7)(i) threshold criterion is applied separately for each segment.

Note 2: Because the Pension Harmonization criterion of 9904.412-50(b)(7)(i) has been met for Segment 1, the actuarial accrued liability is measured by the transitional minimum actuarial liability as required by 9904.412-64.1(b)(4). See Table 3. Because the Pension Harmonization criterion of 9904.412-50(b)(7)(i) was not satisfied for Segments 2 through 7, the actuarial accrued liability is based on the actuarial assumptions that reflect long-term trends in accordance with 9904.412-50(b)(4), i.e., the transitional minimum actuarial liability does not apply.

Note 3: See Illustration 9904.412-60.1(b)(1)(ii), Table 2.

(ii) Measurement of the Pension Cost for the current period (Table 5):

Table 5

Pension Cost for Fourth Transition Period

	Total Plan	Segment 1	Segments 2 through 7	Notes
	(Note 1)			
Normal Cost Plus Expense Load		$ 105,405	$ 821,600	2
Amortization Installments		101,990	314,437	3, 4
Pension Cost Computed for the Period	$ 1,343,432	$ 207,395	$ 1,136,037	

Note 1: Except for the Total Pension Cost Computed for the Period, the values for the Total Plan are not shown because the 9904.412-50(b)(7)(i) threshold criterion is applied separately for each segment.

Note 2: See Table 3. Because the Pension Harmonization criterion of 9904.412-50(b)(7)(i) has been met for Segment 1, the sum of the normal cost plus the expense load is measured by the sum of the transitional minimum normal cost plus the expense load, as required by 9904.412-64.1(a). Because the Pension Harmonization criterion of 9904.412-50(b)(7)(i) was not satisfied for Segments 2 through 7, the sum of the normal cost plus any applicable expense load is based on the contractor's actuarial assumptions reflecting long-term trends in accordance with 9904.412-40(b)(2) and 9904.412-50(b)(4), i.e., the transitional minimum normal cost plus the expense load does not apply.

Note 3: Net amortization installment based on the unfunded actuarial liability of $781,743 for Segment 1, and $2,352,072 for Segments 2 through 7, including an interest equivalent on the unamortized portion of such liability. See Table 4. The interest adjustment is based on the contractor's interest rate assumption in compliance with 9904.412-40(b)(2) and 9904.412-50(b)(4).

Note 4: See 9904.64-1(c)(4) for details concerning the recognition of the unfunded actuarial liability during the first Pension Harmonization Rule Transition Period.

(4) The Silvertone Corporation separately computes pension costs for Segment 1, and

computes pension costs for Segments 2 through 7 in the aggregate.

(i) For the First Cost Accounting Period of the Pension Harmonization Rule Transition Period, the difference between the actuarial accrued liability and the minimum actuarial liability, and the difference between the normal cost and the minimum normal cost, are multiplied by 0%. Therefore the transitional minimum actuarial liability and transitional minimum normal are equal to the actuarial accrued liability and normal cost. The total transitional minimum liability for the period does not exceed the total liability for the period in conformity with the criterion of 9904.412-50(b)(7)(i). Therefore, the pension cost for the First Cost Accounting Period of the Pension Harmonization Rule Transition Period is computed using the actuarial accrued liability and normal cost.

(ii) The actuarial gain attributable to experience during the prior period that is measured for the cost accounting period is amortized over a ten-year period in accordance with 9904.412-50(a)(1)(v) and 9904.413-50(a)(2)(ii).

(iii) The contractor computes the pension cost for First Cost Accounting Period of the Pension Harmonization Rule Transition Period as shown in Table 6 below.

Table 6

Computation of the Pension for the First Transition Period

	Total Plan	Segment 1	Segments 2 through 7	Notes
	(Note 1)			
Amortization of Unfunded Liability				
Net Amortization Installment from Prior Periods		$ 81,019	$ 523,801	2
January 1, 2013, Actuarial Loss (Gain) Amortization Installment		(9,369)	(68,740)	3
Net Amortization Installment		$ 71,650	$ 455,061	
Normal Cost plus expense load		78,400	715,000	4
Pension Cost Computed for the Period		$ 150,050	$ 1,170,061	

Note 1: The values for the Total Plan are not shown because the 9904.412-50(b)(7)(i) threshold criterion is applied separately for each segment.

Note 2: Amortization installments of actuarial gains and losses, and other portions of the unfunded actuarial liability identified prior to January 1, 2013, in accordance with 9904.412-50(a)(1)(v) and 9904.413-50(b)(2)(ii), including an interest adjustment based on the contractor's long-term interest assumption in compliance with 9904.412-40(b)(2) and 9904.412-50(b)(4).

Note 3: The actuarial gains for both Segment 1, and Segments 2 through 7, as measured as of January 1, 2013, are amortized over a ten-year period in accordance with 9904.413-50(a)(2)(ii) and 9904.412-64-1(b)(4). Note that although the source of the actuarial gains was the deviation between assumed and actual changes during the prior period, the gain is measured on January 1, 2013, and so the ten-year amortization period applies in the current period, including an interest adjustment based on the contractor's long-term interest assumption in compliance with 9904.412-40(b)(2) and 9904.412-50(b)(4).

Note 4: For the first period of the Pension Harmonization Rule transition period, the adjustment to the sum of the actuarial accrued liability and normal cost is adjusted by $0. Therefore the sum of the transitional minimum actuarial liability and transitional minimum normal cost plus expense load is equal to the sum of the actuarial accrued liability and normal cost plus expense load, and the criterion of 9904.412-50(b)(7)(i) was not met for either Segment 1, or Segments 2 through 7. The sum of the normal cost plus expense load is based on the sum of the going concern normal cost plus expense load.