

**September 11, 2007**

**PPA Training – Single Employer  
Funding Rules**

Basic PPA Concepts and Strategic Issues

**Francis J. Kriston, Jr., ASA, EA**



# **Acknowledgements:**

This session draws from Bruce Cadenhead's PPA II Session at the 2007 Enrolled Actuaries Meeting and the SOA Webcast

# Agenda

- Basic funding rules for single employer pension plans
  - PPA Terminology
  - Minimum IRC §430
    - Focus on the basic (not-at-risk) rules
    - Overview of at-risk
  - Maximum IRC §404(o)
- Funding strategy and related issues
  - Benefit restrictions (to the extent this affects funding considerations)
  - Strategic considerations
  - Timing – important dates

# What is not covered in detail

- Asset valuation methods
  - 24 month period / 90-110% corridor
  - “Averaging” or “smoothing”?
- Restrictions on funding of nonqualified deferred compensation plans
  - At-risk
  - In bankruptcy
  - Terminating insufficient plan
- Temporary relief from funding rules for certain defined benefit plans
  - Multiple employer plans of rural cooperatives
  - Certain defense contractors
  - PBGC settlement plans

# **New terminology: IRC 430**

- Minimum Required Contribution (“MRC”)
- Target Normal Cost (“TNC”)
- Funding Target (“FT”)
- Funding Shortfall (“FS”)
- Shortfall Amortization Base (“SAB”)
- Shortfall Amortization Installment (“SAI”)
- Shortfall Amortization Charge (“SAC”)
- Effective Interest Rate (“EIR”)

# New Credit Balance terminology

- Carryover Balance (“COB”)
  - Continuation of the plan’s Credit Balance as of the end of the 2007 plan year
- Prefunding Balance (“PFB”)
  - Balance due to excess contributions made in 2008 and subsequent plan years
- The COB must be completely eliminated before the PFB can be used for:
  - “Burning” under IRC §430(f)(5)
  - Reducing the MRC under IRC §430(f)(3)

# Funding Target (FT)

- Present value of accrued benefits at the beginning of the plan year.
- Unit Credit funding method.
- Mortality table & interest discount prescribed by IRC §430.
- All other assumptions chosen by enrolled actuary (assuming not at-risk).
- If the plan is at-risk, use the at-risk assumptions and a possible load.

# Target Normal Cost (TNC)

- Present value of benefits accruing during the plan year.
- Unit Credit funding method.
- Salary increase for pay-related benefit formula
- Otherwise same assumptions as for Funding Target (including at-risk assumptions and possible at-risk load, if plan is at-risk)

# **Funding Shortfall = a – b, but not < 0**

**where:**


- a. Funding Target
- b. Net Assets = Actuarial value of assets less:
  - Carryover Balance<sup>1</sup>
  - Prefunding Balance<sup>2</sup>

$$FS = FT - (AV - COB^1 - PFB^2), \text{ but not less than zero}$$

$$NA = AV - COB^1 - PFB^2$$

<sup>1</sup> Do not subtract the Carryover Balance if there is a binding written agreement with the PBGC not to use it to reduce the MRC.

<sup>2</sup> Do not subtract the Prefunding Balance if there is a binding written agreement with the PBGC not to use it to reduce the MRC.



## **MRC: If (Assets – COB – PFB) < FT:**

Minimum Required Contribution = a + b + c, where:

- a. Target Normal Cost
- b. Shortfall Amortization Charge
- c. Waiver Amortization Charge

$$\text{MRC} = \text{TNC} + \text{SAC} + \text{WAC}$$



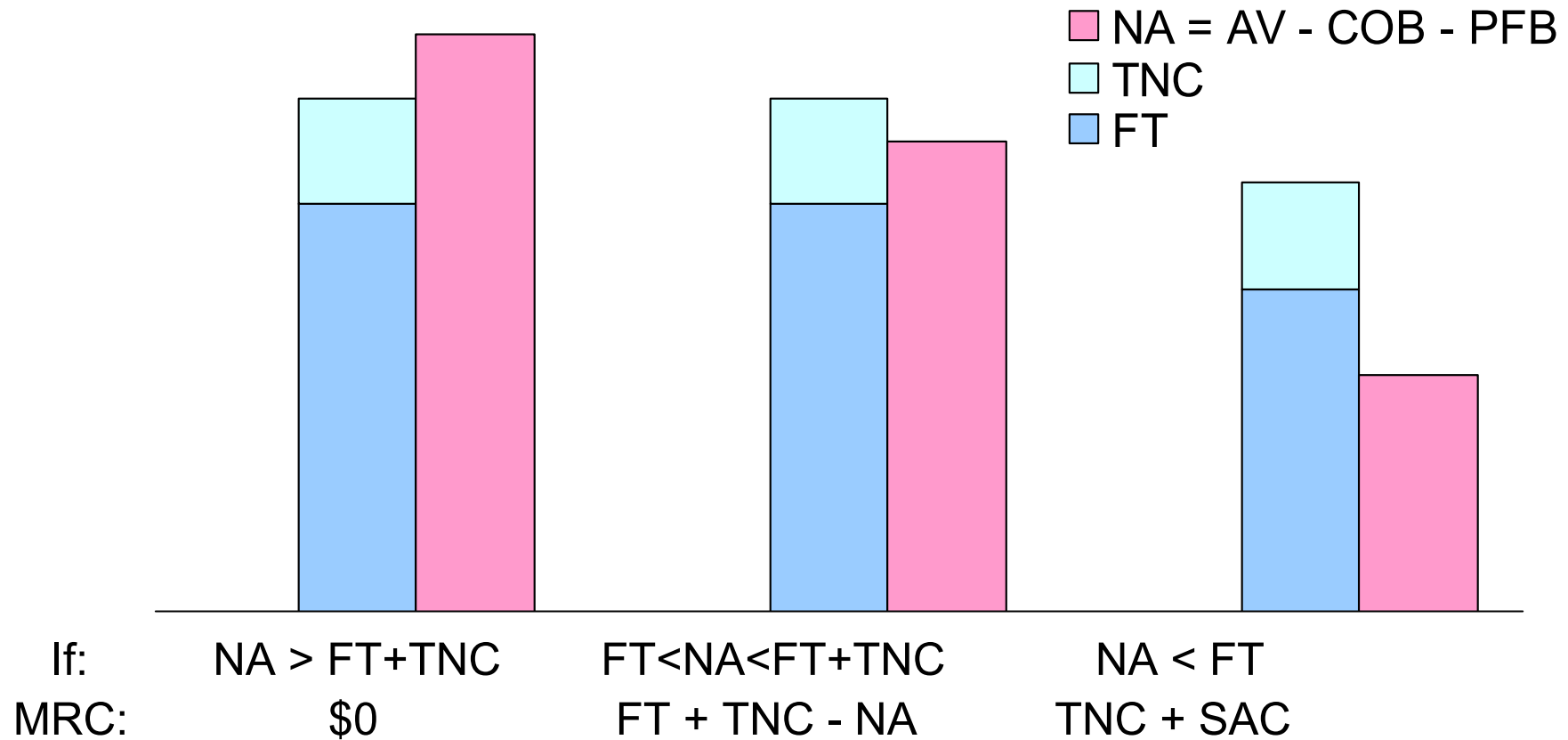
## **MRC: If (Assets – COB – PFB) ≥ FT**

Minimum Required Contribution = Target Normal Cost less the excess of adjusted assets over the Funding Target, but not less than \$0.

$$\text{MRC} = \text{TNC} - [(\text{AV} - \text{COB} - \text{PFB}) - \text{FT}], \text{ but not } < \$0$$

This is similar to a “full funding” concept.

# Minimum Required Contribution (MRC):



# Shortfall Amortization Charge

- Sum of all Shortfall Amortization Installments, but not  $< 0$

$$\text{SAC} = \sum \text{SAI}, \text{ not } < 0$$

# Shortfall Amortization Installment

- Set up a SAI to amortize each Shortfall Amortization Base in level annual installments over a period of 7 years
- Must use yield curve segment rates in effect for the next 7 years

# Shortfall Amortization Base (initial)

Initial Shortfall Amortization Base is equal to the (initial) Funding Shortfall:

$$SAB = FS = FT - (AV - COB^1 - PFB^1); \text{ not } < 0$$

## Notes:

1. Do not subtract the COB or PFB if there is a binding written agreement with the PBGC not to use it to reduce the MRC.
2. PFB will be \$0 initially.
3. Treatment of existing waiver bases unclear; likely that these would be maintained and subtracted from the amount of the initial SAB.

# Shortfall Amortization Base (subsequent)

Shortfall Amortization Base created in subsequent years =  $a - b$  where:

- a. Funding Shortfall
- b. Present value of the remaining amortization payments (SAIs and WAIs) on all existing bases

**Notes:**

1. In any year in which the FS = 0, ALL Shortfall Amortization Bases are considered fully amortized.
2. A Shortfall Amortization Base can be  $< 0$ !
3. The current year's Segment Interest rates are used to determine the present value in (b).

# Shortfall Amortization Base (Exemption)

Exempt from establishing a Shortfall Amortization Base if Actuarial Value of Assets less the Prefunding Balance is greater than or equal to the Funding Target i.e..  $(AV - PFB^1) \geq FT$

## Notes:

1. Only subtract the PFB if any portion of it will be applied to satisfy the MRC.
2. If not using any portion of PFB to satisfy MRC, then no adjustment.

# Shortfall Amortization Base (Exemption - Transition)

For years 2008 – 2010, a plan is exempt from establishing a Shortfall Amortization Base if  $(AV - PFB^1) \geq X$  where “X” is:

92% of FT for the 2008 plan year

94% of FT for the 2009 plan year

96% of FT for the 2010 plan year

## Notes:

1. Only subtract the PFB if any portion of it will be applied to satisfy the MRC.
2. NO TRANSITION RELIEF if plan did not exist in 2007, has a DRC in 2007, or a Shortfall Amortization Base was set up for “any” year after 2007.

# Segment Yield Curve

- Segmented yield curve (24-month average):
  1. 0-5 years
  2. 5-20 years
  3. After 20 years
- Or, full yield curve (w/o 24-month average).
- If full yield curve elected, cannot be revoked w/o Treasury's consent.
- Use curve for the “applicable” month (i.e. month that includes the valuation date, or any of the 4 prior months; cannot be revoked w/o Treasury's consent).
- 3-year phase-in of yield curve, may elect to forgo phase-in (which cannot be revoked w/o Treasury's approval).

# Effective Interest Rate (EIR)

- The “effective” interest rate with respect to a plan year is the single rate of interest which, if used to determine the present value of the plan’s accrued benefits, would result in an amount equal to the funding target of the plan for such plan year.
- Certain amounts are determined using the plan’s “effective” interest rate (e.g. discounted receivable contributions, payments made on a date other than the valuation date).

# MRC: Basic Calculation (2008)

Plan is exempt from DRC in 2007

## Valuation Data as of 1/1/2008

<b>Funding Target (FT)</b>	<b>1,000,000</b>	<b>Segment 1 rate = 5.60%</b>
<b>Target Normal Cost (TNC)</b>	<b>80,000</b>	<b>Segment 2 rate = 5.75%</b>
<b>Assets</b>	<b>915,000</b>	<b>Segment 3 rate = 6.00%</b>
<b>Carryover Balance</b>	<b>115,000</b>	<b>Effective rate = 5.80%</b>
<b>Prefunding Balance</b>	<b>0</b>	

# MRC: Basic Calculation (2008)

Plan is exempt from DRC in 2007

## Valuation Data as of 1/1/2008

Funding Target (FT)	1,000,000	Segment 1 rate =	5.60%
Target Normal Cost (TNC)	80,000	Segment 2 rate =	5.75%
Assets	915,000	Segment 3 rate =	6.00%
Carryover Balance	115,000	Effective rate =	5.80%
Prefunding Balance	0		

## Test for Shortfall Amortization Base Exemption:

$(\text{Assets} - \text{PFB}) \div \text{Funding Target, or}$

$$(915,000 - 0) \div 1,000,000 = 91.5\%$$

Note: could have made additional \$5,000 contribution for 2007 as late as 9/15/2008 (no discounting) to be eligible for transition rule

Since 91.5% is less than 92%, the Plan does not meet the transition requirement for the Shortfall Amortization Base exemption.

# MRC: Basic Calculation (2008)

## Valuation Results as of 1/1/2008

Funding Shortfall (FS) = $SAB_{2008}$ (since initial yr)	200,000
Shortfall Amortization Factor for 7 yrs ( $SAF_7$ )	5.9682
Shortfall Amortization Installment ( $SAI_{2008}$ )	33,511
Minimum Required Contribution (MRC):	
Target Normal Cost	80,000
Shortfall Amortization Charge	33,511
Funding Waiver Amortization	0
Total MRC	<u>113,511</u>
Application of Carryover Balance	(113,511)
<b>Absolute Minimum Cash Requirement</b>	<b><u>0</u></b>

# MRC: Basic Calculation (2008)

## Valuation Results as of 1/1/2008

Funding Shortfall (FS) = SAB<sub>2008</sub> (since initial yr)

200,000

Funding Shortfall =  
Funding Target  
- (Assets – COB – PFB)

or

1,000,000  
- (915,000 – 115,000)  
= 200,000

# MRC: Basic Calculation (2008)

## Valuation Results as of 1/1/2008

Funding Shortfall (FS) =  $SAB_{2008}$  (since initial yr)  
Shortfall Amortization Factor for 7 yrs ( $SAF_7$ )

200,000

5.9682

$SAF_7$

See next slide for  
development

# MRC: Basic Calculation (2008)

Calculation of Shortfall Amortization Factor for 7 years (SAF<sub>7</sub>)

<u>Year</u>	<u>Applicable Segment Interest Rate</u>	<u>Discount Factor</u>
1	5.60%	1.0000
2	5.60%	0.9470
3	5.60%	0.8968
4	5.60%	0.8492
5	5.60%	0.8042
6	5.75%	0.7561
7	5.75%	0.7150
		<b>5.9682</b>

Detail:

$$1 \div (1.056)^2 = 0.8968$$

Detail:

$$1 \div (1.0575)^6 = 0.71502$$

# MRC: Basic Calculation (2008)

## Valuation Results as of 1/1/2008

Funding Shortfall (FS) =  $SAB_{2008}$  (since initial yr)

Shortfall Amortization Factor for 7 yrs ( $SAF_7$ )

Shortfall Amortization Installment ( $SAI_{2008}$ )

200,000

5.9682

33,511

$SAI_{2008} =$

$SAB_{2008} \div SAF_7$

$200,000 \div 5.9682 =$

33,511

# MRC: Basic Calculation (2008)

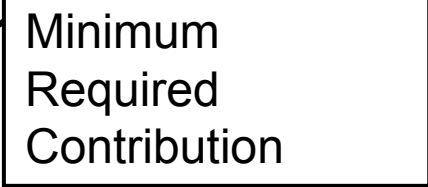
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Shortfall Amortization Factor for 7 yrs ( $SAF_7$ )	5.9682
Shortfall Amortization Installment ( $SAI_{2008}$ )	33,511

## Minimum Required Contribution (MRC):

Target Normal Cost	80,000
Shortfall Amortization Charge	33,511
Funding Waiver Amortization	0
Total MRC	<u>113,511</u>

Minimum  
Required  
Contribution



# MRC: Basic Calculation (2008)

## Valuation Results as of 1/1/2008

Funding Shortfall (FS) = SAB <sub>2008</sub> (since initial yr)	200,000
Shortfall Amortization Factor for 7 yrs (SAF <sub>7</sub> )	5.9682
Shortfall Amortization Installment (SAI <sub>2008</sub> )	33,511
Minimum Required Contribution (MRC):	
Target Normal Cost	80,000
Shortfall Amortization Charge	33,511
Funding Waiver Amortization	0
Total MRC	113,511
Application of Carryover Balance	(113,511)
<b>Absolute Minimum Cash Requirement</b>	<b>0</b>

Applying 113,511  
out of total 115,000  
Carryover Balance

**\*\* Can only apply COB if meet funding funded % criteria at last valuation date. We need guidance on how to look back to 2007 for this purpose. (More later.)**

# MRC: Basic Calculation (1 year later: 2009)

Valuation Data as of 1/1/2009

**Assume no contribution paid for 2008**

Funding Target (FT)	1,100,000	Actual return on	
Target Normal Cost (TNC)	85,000	assets during 2008	5.00%
Assets	1,050,000	Segment 1 rate =	5.65%
Carryover Balance (COB)	1,563	Segment 2 rate =	5.80%
Prefunding Balance (PFB)	0	Segment 3 rate =	6.05%
		Effective rate =	5.90%

**Test for Shortfall Amortization Base Exemption:**

**(Assets – PFB) ÷ Funding Target, or**

**(1,050,000 – 0) ÷ 1,100,000 = 95.5%**

**Since 95.5% < 100%, the Plan is not exempt from establishing an SAB**

# MRC: Basic Calculation (1 year later: 2009)

## Valuation Data as of 1/1/2009

No contribution paid for 2008

Funding Target (FT)	1,100,000
Target Normal Cost (TNC)	85,000
Assets	1,050,000
Carryover Balance (COB)	<b>1,563</b>
Prefunding Balance (PFB)	0

Actual return on assets during 2008	5.00%
Segment 1 rate =	5.65%
Segment 2 rate =	5.80%
Segment 3 rate =	6.05%
Effective rate =	5.90%

$$\text{COB} = \$1,563 = 1.05 \times (115,000 - 0 - (113,511 - 0))$$

↑	↑	↑	↑	↑	↑
COB@EOY	1+AROA	COB@BOY	Burn	MRC	PV(Cont's)@BOY
				430(f)(3) Election = \$113,511	

# MRC: Basic Calculation (1 year later: 2009)

## Valuation Results as of 1/1/2009

Funding Shortfall (FS)	51,563
PV of 2008 Shortfall	
Amortization Installments ( $SAI_{2008}$ )	175,846
Shortfall Amortization Base ( $SAB_{2009}$ )	(124,283)
Shortfall Amortization Factor for 7 yrs ( $SAF_7$ )	5.9604
Shortfall Amortization Installment ( $SAI_{2009}$ )	(20,851)
Minimum Required Contribution (MRC):	
Target Normal Cost	85,000
Shortfall Amortization Charge	12,660
Waiver Amortization Charge	0
Total MRC	<u>97,660</u>
Application of Carryover Balance	(1,563)
<b>Absolute Minimum Cash Requirement</b>	<b><u><u>96,097</u></u></b>

# MRC: Basic Calculation (1 year later: 2009)

Valuation Results as of 1/1/2009

Funding Shortfall (FS)

51,563

$$\begin{aligned} \text{FS} &= \\ &\text{Funding Target} \\ &- (\text{Assets} - \text{COB} - \text{PFB}) \\ &\quad \text{or} \\ &1,100,000 \\ &- (1,050,000 - 1,563) \\ &= 51,563 \end{aligned}$$

# MRC: Basic Calculation (1 year later: 2009)

Valuation Results as of 1/1/2009

Funding Shortfall (FS)

PV of 2008 Shortfall

Amortization Installments ( $SAI_{2008}$ )

51,563

175,846

PV Remaining  $SAI_{2008}$  =

$SAI_{2008} \times SAF_6$  using  
2009 segment rates

or

=  $33,511 \times 5.2474$

= 175,846

(See next slide for  $SAF_6$   
development)


# MRC: Basic Calculation (1 year later: 2009)

N	Applicable Segment Interest Rate	Discount Factor	Cummulative Factor, or $SAF_N$
1	5.65%	1.00000	1.00000
2	5.65%	0.94652	1.94652
3	5.65%	0.89590	2.84242
4	5.65%	0.84799	3.69041
5	5.65%	0.80264	4.49305
6	5.80%	0.75435	5.24740
7	5.80%	0.71299	5.96039

# MRC: Basic Calculation (1 year later: 2009)

## Valuation Results as of 1/1/2009

Funding Shortfall (FS)  
PV of 2008 Shortfall  
Amortization Installments ( $SAI_{2008}$ )  
Shortfall Amortization Base ( $SAB_{2009}$ )

51,563		$SAB_{2009} =$
175,846		Funding Shortfall
(124,283)		- PV $SAI_{2008}$
		or
		= 51,563 - 175,846
		= (124,283)

# MRC: Basic Calculation (1 year later: 2009)

## Valuation Results as of 1/1/2009

Funding Shortfall (FS)	51,563
PV of 2008 Shortfall	
Amortization Installments ( $SAI_{2008}$ )	175,846
Shortfall Amortization Base ( $SAB_{2009}$ )	(124,283)
Shortfall Amortization Factor for 7 yrs ( $SAF_7$ )	5.9604
Shortfall Amortization Installment ( $SAI_{2009}$ )	(20,851)

$$\begin{aligned} SAI_{2009} &= \\ &= SAB_{2009} \div SAF_7 \\ &\quad \text{or} \\ &= (124,283) \div 5.9604 \\ &= (20,851) \end{aligned}$$

# MRC: Basic Calculation (1 year later: 2009)

## Valuation Results as of 1/1/2009

Funding Shortfall (FS)	51,563
PV of 2008 Shortfall	
Amortization Installments ( $SAI_{2008}$ )	175,846
Shortfall Amortization Base ( $SAB_{2009}$ )	(124,283)
Shortfall Amortization Factor for 7 yrs ( $SAF_7$ )	5.9604
Shortfall Amortization Installment ( $SAI_{2009}$ )	(20,851)

Minimum Required Contribution (MRC):  
 Target Normal Cost  
 Shortfall Amortization Charge

85,000  
 12,660

Shortfall Amortization Charge =

$$SAI_{2008} + SAI_{2009}$$

or

$$= 33,511 + (20,851)$$

$$= 12,660$$

# MRC: Basic Calculation (1 year later: 2009)

## Valuation Results as of 1/1/2009

Funding Shortfall (FS)	51,563
PV of 2008 Shortfall	
Amortization Installments ( $SAI_{2008}$ )	175,846
Shortfall Amortization Base ( $SAB_{2009}$ )	(124,283)
Shortfall Amortization Factor for 7 yrs ( $SAF_7$ )	5.9604
Shortfall Amortization Installment ( $SAI_{2009}$ )	(20,851)
Minimum Required Contribution (MRC):	
Target Normal Cost	85,000
Shortfall Amortization Charge	12,660
Waiver Amortization Charge	0
Total MRC	<u>97,660</u>

# MRC: Basic Calculation (1 year later: 2009)

## Valuation Data as of 1/1/2008

Funding Target (FT)	1,000,000	Segment 1 rate =	5.60%
Target Normal Cost (TNC)	80,000	Segment 2 rate =	5.75%
Assets	915,000	Segment 3 rate =	6.00%
Carryover Balance	115,000	Effective rate =	5.80%
Prefunding Balance	0		

### **Test to see if can apply Credit Balance for 2009:**

(Assets – PFB) ÷ Funding Target (always use not-at-risk FT), or

$$(915,000 - 0) \div 1,000,000 = 91.5\%$$

**Since 91.5% equals or exceeds 80% for 2008, Plan meets criteria to apply Credit Balance for 2009**

# MRC: Basic Calculation (1 year later: 2009)

## Valuation Results as of 1/1/2009

Funding Shortfall (FS)	51,563
PV of 2008 Shortfall	
Amortization Installments ( $SAI_{2008}$ )	175,846
Shortfall Amortization Base ( $SAB_{2009}$ )	(124,283)
Shortfall Amortization Factor for 7 yrs ( $SAF_7$ )	5.9604
Shortfall Amortization Installment ( $SAI_{2009}$ )	(20,851)
Minimum Required Contribution (MRC):	
Target Normal Cost	85,000
Shortfall Amortization Charge	12,660
Waiver Amortization Charge	0
Total MRC	97,660
Application of Carryover Balance	(1,563)
<b>Absolute Minimum Cash Requirement</b>	<b>96,097</b>

# Contribution Due Dates: IRC §430(j)

- Generally, due dates are the same as under current law:
  - MRC is due 8½ months after the end of the plan year.
  - If required, quarterly contributions are due 3½, 6½, 9½, and 12½ months after the beginning of the plan year.
- The MRC increases with interest at the Effective Interest Rate from the Valuation Date to the date contributions are paid (the interest charge does not stop at the end of the plan year).

# Quarterly Contributions: IRC §430(j)

- Quarterlies are due for any year in which a Funding Shortfall exists for the prior year:
  - IRS guidance needed for 2007 lookback for 2008 plan year
- Required quarterly installments are 25% of Required Annual Payment (RAP) where RAP is the lesser of:
  - 100% of MRC for prior year, or
  - 90% of MRC for current year
- Additional interest is charged if a quarterly is late
  - Rate = effective rate of interest for the plan year + 500 bps
- Liquidity shortfall requirements continue to apply

# Quarterly Contributions: IRC §430(j)

- We expect that credit balances (COB and PFB) can be applied in a manner similar to pre-PPA rules
  - Based solely on prior year contributions made prior to the quarterly due date.
  
- Open questions:
  - Does it require an affirmative plan sponsor election to apply COB and PFB to cover quarterlies?
  - May COB and PFB be used to cover quarterly if plan is otherwise ineligible to use (based on funded status)?
  - If COB is sufficient to cover a quarterly payment that is not made, is COB treated as being applied, even if the full MRC is paid by the final contribution due date?

## Quarterly Contributions: IRC §430(j)

- In our example, Quarterly Contributions are required for 2009 since there was a Funding Shortfall in 2008.
- If 2009 quarterlies are late, interest is charged on the deficiency at 10.9% (the 2009 Effective Interest Rate of 5.9% + the 5% penalty) from the due date to the actual payment date.
- COB may be applied to offset small portion of a quarterly payment.

# Contributions Receivable: IRC §430(g)(4)(A)

- The MRC is determined as of the Valuation Date (VD)
  - The VD must be the BOPY if the plan had over 100 participants on any day in the prior plan year.
  - Small Plan exception: VD = any day during the plan year.
- Contributions made after the VD that are for a prior plan year are included in assets as a contribution receivable.
  - Beginning in 2009, receivables are discounted back to the valuation date using the prior year's Effective Interest Rate.
  - Note: Contributions made in 2008 for the 2007 Plan Year DO NOT have to be discounted.

## Determining Actual Contributions: IRC §430(j)(2)

Interest on contribution is given to actual payment date, even if beyond the end of the Plan Year. The example below ignores quarterly contribution requirements.

■ Absolute Minimum Cash Contribution for 2009 = \$96,097 as of 1/1/2009

■ If contribute a single payment on 12/31/2009, owe \$101,767

$$\$96,097 \times 1.059 = \$101,767$$

■ If contribute a single payment on 9/15/2010, owe \$105,984

$$\$96,097 \times 1.059^{(20.5/12)} = \$105,984$$

# Determining Actual Contributions : IRC §430(j)(2)

Example #2: Actual contribution requirements for 2009, reflecting quarterly requirements and use of COB:

- 2009 Quarterly requirement = \$21,974: the lesser of:
  - \$30,024 = 25% x 100% x 2008's MRC of \$113,511 x 1.058 (2008's EIR)
  - \$21,974 = 25% x 90% x \$2009's MRC of \$97,660

Due Date	Amount Due	Calculation / Notes
4/15/09	\$20,385	\$21,974 – CB of \$1,563 x 1.059 <sup>(3.5/12)</sup>
7/15/09	\$21,974	Credit Balance is fully used
10/15/09	\$21,974	Credit Balance is fully used
1/15/10	\$21,974	Credit Balance is fully used
9/15/10	\$14,391	\$14,391 = \$97,660 x 1.059 <sup>(20.5/12)</sup> - \$21,974 x (1.059 <sup>(17/12)</sup> + 1.059 <sup>(14/12)</sup> + 1.059 <sup>(11/12)</sup> + 1.059 <sup>(8/12)</sup> )

# PPA Quirks

- SAB Exemption – reward or punishment?
  - Reward – plan can avoid setting up base in year following poor experience if contributions make plan fully funded.
  - Punishment – cannot set up credit base in year following good experience if gains or contributions are enough to fund plan to 100%.
- Implications of look-back:
  - Ability to use credit balance based on *prior year* funded level [(AV – PFB) / FT<sup>1</sup> must be ≥ 80%]
  - If plan is less than 80% funded, neither the COB nor the PFB can be used for the following year – even if contributions raise funded level to more than 80% (must wait until the year after).

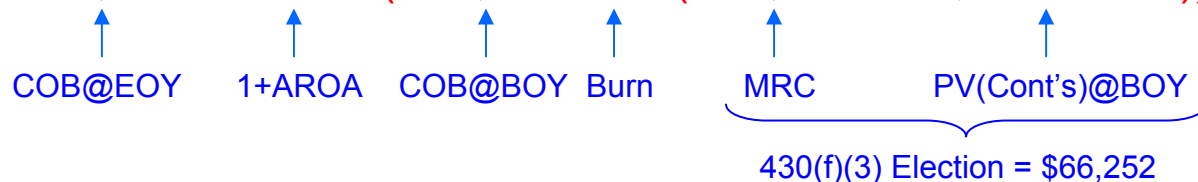
<sup>1</sup> Not-at-Risk Funding Target

# MRC: Basic Calculation (1 year later: 2009) with \$50,000 Contribution

Assume a \$50,000 contribution is paid for 2008 on 1/1/2009 and the employer elects to reduce the CB by the minimum amount required

Funding Target (FT)	1,100,000	Actual return on	
Target Normal Cost (TNC)	85,000	assets during 2008	5.00%
Assets	1,100,000	Segment 1 rate =	5.65%
Carryover Balance (COB)	51,185	Segment 2 rate =	5.80%
Prefunding Balance (PFB)	0	Segment 3 rate =	6.05%
		Effective rate =	5.90%

$$\text{COB} = \$51,185 = 1.05 \times (115,000 - 0 - (113,511 - 50,000/1.058))$$



$$\text{PFB} = \$0 = 2008 \text{ XS Cont} = 1.058 \times (50,000 / 1.058 - (113,511 - 66,252))$$

# MRC: Basic Calculation (1 year later: 2009) with \$50,000 Contribution

## Valuation Results as of 1/1/2009

Funding Shortfall (FS)

PV of 2008 Shortfall

Amortization Installments ( $SAI_{2008}$ )

Shortfall Amortization Base ( $SAB_{2009}$ )

Shortfall Amortization Factor for 7 yrs ( $SAF_7$ )

Shortfall Amortization Installment ( $SAI_{2009}$ )

Minimum Required Contribution (MRC):

Target Normal Cost

Shortfall Amortization Charge

51,185

175,846

0

5.9604

0

85,000

33,511

$$\begin{aligned} FS &= FT - (\text{Assets} - \text{COB} - \text{PFB}) \\ &= \$1,100,000 - (1,100,000 - 51,185 - 0) = \$51,185 \end{aligned}$$

**No SAB for 2009 because  
(Assets - PFB\*)  $\geq$  FT  
(1,100,000 - 0)  $\geq$  1,100,000**

$$\begin{aligned} SAC &= SAI_{2008} + SAI_{2009} \\ &= 33,511 + 0 \\ &= 33,511 \end{aligned}$$

\* PFB would be subtracted only if sponsor elects to apply it. PFB is \$0 in this case so it doesn't matter

# MRC: Basic Calculation (1 year later: 2009) with \$50,000 Contribution

Funding Shortfall (FS)	51,185
PV of 2008 Shortfall	
Amortization Installments (SAI <sub>2008</sub> )	175,846
Shortfall Amortization Base (SAB <sub>2009</sub> )	0
Shortfall Amortization Factor for 7 yrs (SAF <sub>7</sub> )	5.9604
Shortfall Amortization Installment (SAI <sub>2009</sub> )	0
Minimum Required Contribution (MRC):	
Target Normal Cost	85,000
Shortfall Amortization Charge	33,511
Waiver Amortization Charge	0
Total MRC	118,511
Application of Carryover Balance	(51,185)
<b>Absolute Minimum Cash Requirement</b>	<b>67,326</b>
Absolute Min Before \$50K Contribution	96,097
Reduction in Absolute Min Contribution	28,771

## **MRC: Basic Calculation (1 year later: 2009) with \$50,000 Contribution**

- Inability to set up base effectively consumed \$20,915 of potential credit balance (= amount of  $SAI_{2009}$  that otherwise would have applied).
- This effect may continue in future years if plan remains above 100% funded but with a non-zero Funding Shortfall.
- Answer would have been different if contribution had been just slightly lower.
- Answer would have been different if there had been a PFB instead of a COB and sponsor had elected to use part of it (but can't use PFB until COB is fully used up).

# New Example – Implications of Lookback

	<u>2008</u>
a. Funding Target	10,000,000
b. Target Normal Cost	750,000
c. Assets	7,800,000
d. Credit Balance	-
e. Funding Shortfall = a. - (c. - d.), not < 0	2,200,000
f. Funded Ratio = c. / a.	78%
g. Funded Ratio (assets reduced for credit balance) = (c. - d.) / a.	78%
h. Interest Rates	5.8%/5.9%/6.0%
i. 6-year amortization amount	5.23
j. 7-year amortization factor	5.94
k. Value of Prior SAls = i. x m. from prior year	
l. New Base = e. - k.	2,200,000
m. Shortfall Amortization Installment = l. / j.	370,321
n. Minimum Required Contribution = b. + m. (current and prior years); not more than a. + b. - (c. - d.)	1,120,321

# New Example – Implications of Lookback

	<u>2008</u>
a. Funding Target	10,000,000
b. Target Normal Cost	750,000
c. Assets	7,800,000
d. Credit Balance	-
e. Funding Shortfall = a. - (c. - d.), not < 0	2,200,000
f. Funded Ratio = c. / a.	78%
g. Funded Ratio (assets reduced for credit balance) = (c. - d.) / a.	78%
h. Interest Rates	5.8%/5.9%/6.0%
i. 6-year amortization amount	5.23
j. 7-year amortization factor	5.94
k. Value of Prior SAs = i. x m. from prior year	
l. New Base = e. - k.	2,200,000
m. Shortfall Amortization Installment = l. / j.	370,321
n. Minimum Required Contribution = b. + m. (current and prior years); not more than a. + b. - (c. - d.)	1,120,321
<b>o. Actual Contribution Made 12/31</b>	<b>2,800,000</b>
<b>p. Effective Interest Rate (EIR)</b>	<b>5.90%</b>
<b>q. Contribution Discount Back to Valuation Date</b>	<b>2,644,004</b>
<b>r. Excess Over Minimum = Credit Balance</b>	<b>1,523,683</b>
<b>s. Actual Return on Assets During the Year</b>	<b>8%</b>
<b>t. Credit Balance at beginning of next year</b>	<b>1,613,580</b>

In determining next year's credit balance, the beginning of year credit balance (\$0) earns interest at the actual return (8%). Current year contributions are projected / discounted using the EIR (5.9%)



# New Example – Implications of Lookback

	<u>2008</u>	<u>2009</u>
a. Funding Target	10,000,000	<b>10,870,000</b>
b. Target Normal Cost	750,000	<b>790,000</b>
c. Assets	7,800,000	<b>10,700,000</b>
d. Credit Balance	-	<b>1,613,580</b>
e. Funding Shortfall = a. - (c. - d.), not < 0	2,200,000	<b>1,783,580</b>
f. Funded Ratio = c. / a.	78%	<b>98%</b>
g. Funded Ratio (assets reduced for credit balance) = (c. - d.) / a.	78%	<b>84%</b>
h. Interest Rates	5.8%/5.9%/6.0%	<b>5.5%/5.75%/6.0%</b>
i. 6-year amortization amount	5.23	<b>5.26</b>
j. 7-year amortization factor	5.94	<b>5.98</b>
k. Value of Prior SAls = i. x m. from prior year		<b>1,948,364</b>
l. New Base = e. - k.	2,200,000	<b>(164,784)</b>
m. Shortfall Amortization Installment = l. / j.	370,321	<b>(27,573)</b>
n. Minimum Required Contribution = b. + m. (current and prior years); not more than a. + b. - (c. - d.)	1,120,321	<b>1,132,748</b>
o. Actual Contribution Made 12/31	2,800,000	
p. Effective Interest Rate (EIR)	5.90%	
q. Contribution Discount Back to Valuation Date	2,644,004	
r. Excess Over Minimum = Credit Balance	1,523,683	
s. Actual Return on Assets During the Year	8%	
t. Credit Balance at beginning of next year	1,613,580	

Can't use credit balance because 1/1/2008 funded ratio is < 80%

# New Example – Implications of Lookback

	<u>2008</u>	<u>2009</u>
a. Funding Target	10,000,000	10,870,000
b. Target Normal Cost	750,000	790,000
c. Assets	7,800,000	10,930,000
d. Credit Balance	-	1,613,580
e. Funding Shortfall = a. - (c. - d.), not < 0	2,200,000	1,553,580
f. Funded Ratio = c. / a.	78%	101%
g. Funded Ratio (assets reduced for credit balance) = (c. - d.) / a.	78%	86%
h. Interest Rates	5.8%/5.9%/6.0%	5.5%/5.75%/6.0%
i. 6-year amortization amount	5.23	5.26
j. 7-year amortization factor	5.94	5.98
k. Value of Prior Bases = i. x m. from prior year		1,948,364
l. New Base = e. - k.	2,200,000	-
m. Amortization Amount = l. / j.	370,321	-
n. Minimum Required Contribution = b. + m. (current and prior years); not more than FT + TNC - (AV - COB - PFB)	1,120,321	1,160,321
o. Actual Contribution Made 12/31	2,800,000	
p. Effective Interest Rate (EIR)	5.90%	
q. Contribution Discount Back to Valuation Date	2,644,004	
r. Excess Over Minimum = Credit Balance	1,523,683	
s. Actual Return on Assets During the Year	11%	
t. Credit Balance at beginning of next year	1,613,580	

**No new base because funded ratio > 100%. Therefore contribution goes up!**

# New Example – Implications of Lookback

	<u>2008</u>	<u>2009</u>
a. Funding Target	10,000,000	10,870,000
b. Target Normal Cost	750,000	790,000
c. Assets	7,800,000	10,930,000
d. Credit Balance	-	-
e. Funding Shortfall = a. - (c. - d.), not < 0	2,200,000	-
f. Funded Ratio = c. / a.	78%	101%
g. Funded Ratio (assets reduced for credit balance) = (c. - d.) / a.	78%	101%
h. Interest Rates	5.8%/5.9%/6.0%	5.5%/5.75%/6.0%
i. 6-year amortization amount	5.23	5.26
j. 7-year amortization factor	5.94	5.98
k. Value of Prior Bases = i. x m. from prior year	-	-
l. New Base = e. - k.	2,200,000	-
m. Amortization Amount = l. / j.	370,321	-
n. Minimum Required Contribution = b. + m. (current and prior years); not more than a. + b. - (c. - d.)	1,120,321	730,000
o. Actual Contribution Made 12/31	2,800,000	
p. Effective Interest Rate (EIR)	5.90%	
q. Contribution Discount Back to Valuation Date	2,644,004	
r. Excess Over Minimum = Credit Balance	1,523,683	
s. Actual Return on Assets During the Year	11%	
t. Credit Balance at beginning of next year	1,613,580	

**Burning all credit balance increases net assets, eliminating the funding shortfall. SAls are eliminated. "Full funding"-type limit applies**

# Summary of PPA Minimum Funding Rules for Single Employer Plans

1.  $FS = FT - (AV \text{ of Assets} - COB^1 - PFB^1)$ , but not less than zero
2. If  $(AV \text{ of Assets} - COB - PFB) < FT$ ,  $MRC = TNC + SAC + WAC$  :
3. If  $(AV \text{ of Assets} - COB - PFB) \geq FT$ ,  $MRC = TNC - [(AV-COB-PFB)-FT]$ , but not  $< \$0$
4.  $SAC =$  greater of  $\$0$  and the sum of the SAIs for the SABs for the current and six prior PYs
5.  $SAI =$  7-year amortization of an SAB (the SAI doesn't change once established)
6. Each year's SAB = that year's FS – PV<sup>2</sup> of remaining SAIs and WAIs on all existing bases
7. An SAB can be  $< 0$
8. In any year that the FS = 0, consider all SABs fully amortized
9. Exempt from establishing an SAB if  $(AV \text{ of assets} - PFB^3) \geq FT^4$
10. YC Segment Rates: 0-5, 5-20, 20+; 24-mth avg ending prior to VD or any of the 4 prior months; may use full YC w/o 24-mth avg; may phase in 1/3 in 2008, 2/3 in 2009
11.  $CB_{t+1} = (CB_t - 430(f)(5) \text{ Burn} - 430(f)(3) \text{ Amt applied to MRC}^5) \times (1 + AROA) + XS \text{ Cont}$
12. Required Q'ly Cont =  $\frac{1}{4} \times L(MRC_{t-1} \text{ at end of } (t-1); 90\% \text{ of } MRC_t)$ ; if late increase EIR 5%

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<sup>1</sup> Do not subtract COB or PFB if there is a bwa with the PBGC not to use it to reduce the MRC

<sup>2</sup> Calculate the PV of future SAIs and WAIs, using the current year's segment rates

<sup>3</sup> Only subtract PFB if any portion of it will be applied to satisfy the MRC

<sup>4</sup> Use 92%/94%/96% in 2008/2009/2010 if plan existed in 2007, had no DRC in 2007 and has no prior SABs

<sup>5</sup> No offset against MRC is allowed unless  $(A - PFB) / \text{not-at-risk FT} \geq .8$  last year

# Summary of Funding Measurements

Purpose	Assets <sup>1</sup> (1)	Liability (2)	Test / Explanation
<b>Definition of MRC</b>	Assets – COB – PFB	Funding Target <sup>3</sup>	If (1) ≥ (2), MRC = G[0, TNC – ((1) – (2))] If (1) < (2), MRC = TNC + SAC + WAC
<b>Funding Shortfall</b>	Assets – COB <sup>2</sup> – PFB <sup>2</sup>	Funding Target <sup>3</sup>	Funding Shortfall = Excess, if any, of (2) over (1)
<b>Exempt from setting up a new Shortfall Amortization Base?</b>			
If there is no PFB, or if none of it is applied to satisfy the MRC per IRC §430(f)(3)	Full assets	Funding Target <sup>3</sup>	Exemption applies if (1) / (2) for current year ≥ 1. Transition rule for non-new, non-DRC plans that have never had to set up a SAB: phase-in % = 92% in 2008, 94% in 2009, 96% in 2010.
If some portion of the PFB is applied to satisfy the MRC per IRC §430(f)(3)	Assets – PFB	Funding Target <sup>3</sup>	Same as above

<sup>1</sup> All references to “assets” are to the actuarial value of assets.

<sup>2</sup> Do not subtract the COB if there is a binding written agreement with the PBGC not to use it to reduce the MRC. Same for PFB.

<sup>3</sup> Use the At-Risk or Not-At-Risk measure, as appropriate, depending on whether the plan is At-Risk for the plan year.

# Summary of Funding Measurements (cont)

Purpose	Assets <sup>1</sup> (1)	Liability (2)	Test / Explanation
Ability to use the credit balance to reduce the MRC per IRC §430(f)(3)	Assets – PFB (prior year)	Not-At-Risk Funding Target <sup>4</sup> (prior year)	Credit Balance is available only if (1) / (2) ≥ 80% in the <b>prior</b> year
Quarterly contribution requirement	Assets – COB <sup>2</sup> – PFB <sup>2</sup> (prior year)	Funding Target <sup>3</sup> (prior year)	Quarterly contributions are required for a plan year if (1) / (2) for the <b>prior</b> plan year < 100%
<b>At-Risk determination:</b>			A plan is At-Risk for a plan year if both prongs are satisfied:
Prong 1 (FTAP)	Assets - COB – PFB (prior year)	Not-At-Risk Funding Target <sup>4</sup> (prior year)	(1) / (2) for the <b>prior</b> year < X% X% is 65% for PYs beginning in 2008, 70% for 2009, 75% for 2010, and 80% thereafter
Prong 2	Assets - COB – PFB (prior year)	Funding Target with At-Risk Assumptions, but without any At- Risk load (prior year)	(1) / (2) for the <b>prior</b> year < 70%

<sup>1</sup> All references to “assets” are to the actuarial value of assets.

<sup>2</sup> Do not subtract the COB if there is a binding written agreement with the PBGC not to use it to reduce the MRC. Same for PFB.

<sup>3</sup> Use the At-Risk or Not-At-Risk measure, as appropriate, depending on whether the plan is At-Risk.

<sup>4</sup> Use the Not-At-Risk Funding Target, even if the plan is At-Risk in the current or prior (or any other) plan year.

# Summary of Other Measurements

Purpose	Assets <sup>1</sup> (1)	Liability (2)	Test / Explanation
<p><b>All benefit restrictions “AFTAP”</b></p> <p>Benefit increases restricted (unless an exemption applies)</p> <p>Lump sums partially restricted</p> <p>Lump sums fully restricted</p> <p>Accruals restricted</p>	<p>Assets - COB – PFB + annuity purchases for NHCEs from two preceding years</p>	<p>Not-At-Risk Funding Target<sup>2</sup> + annuity purchases for NHCEs from two preceding years</p>	<p>If (1) / (2) for current year &lt; 80%</p> <p>If <math>60\% \leq (1) / (2)</math> for the current year &lt; 80%</p> <p>If (1) / (2) for current year &lt; 60%</p> <p>If (1) / (2) for current year &lt; 60%</p>

<sup>1</sup> All references to “assets” are to the actuarial value of assets.

<sup>2</sup> Use the Not-At-Risk Funding Target, even if the plan is At-Risk in the current or prior (or any other) plan year.

# Summary of Other Measurements (cont)

Purpose	Assets <sup>1</sup> (1)	Liability (2)	Test / Explanation
<b>Exemption from all benefit restriction</b>	Full assets + NHCE annuity purchases from two preceding years	Not-At-Risk Funding Target <sup>2</sup> + NHCE annuity purchase from 2 preceding years	Permanent rule – exempt if (1) / (2) for current year $\geq 100\%$ Transition rule: Use 92% for plan years beginning in 2008, 94% for 2009, and 96% for 2010
<b>ERISA §4010 filing requirement (FTAP)</b>	Assets - COB - PFB	Not-At-Risk Funding Target <sup>2</sup>	If (1) / (2) $< 80\%$ for any plan in the controlled group, a filing for the entire controlled group is required FTAP is determined as of the end of the prior year
<b>Variable PBGC premiums</b>	Market value	Vested Funding Target <sup>3</sup> using unsmoothed discount rate	Based on the excess of (2) over (1)
<b>Disclosed on annual funding notice (FTAP)</b>	Assets - COB - PFB	Not-At-Risk Funding Target <sup>2</sup>	Disclose the ratio of (1) / (2)

<sup>1</sup> All references to “assets” are to the actuarial value of assets, unless indicated otherwise.

<sup>2</sup> Use the Not-At-Risk Funding Target, even if the plan is At-Risk in the current or prior (or any other) plan year.

<sup>3</sup> Use the At-Risk or Not-At-Risk measure, as appropriate, depending on whether the plan is At-Risk.

# At-Risk Rules

- Plan is at-risk if it fails both of the following tests as of the prior valuation date
  - Funded Ratio  $(AV - COB - PFB) / FT_{NAR} < 80\%$
  - Funded Ratio  $(AV - COB - PFB) / FT_{AR} < 70\%$
  - 80% subject to phase-in
    - 65% for 2008 (looking back to 2007 – calculation not yet defined)
    - 70% for 2009 (looking back to 2008)
    - 75% for 2010 (looking back to 2009)
  - $FT_{AR}$  = is determined using at-risk assumptions but without regard to expense load
- Controlled groups with  $\leq 500$  DB participants on all days of prior plan year are exempt

# At-Risk Consequences

- Use at-risk assumptions to determine funding target
  - Subject to 20% per year phase-in over 5 consecutive years of at-risk status (beginning in 2008 – i.e. maximum 2008 phase-in is 20%)
  - One year not at-risk restarts clock
- No prefunding NQDC if any plan in controlled group is at-risk
- Special Assumptions used in determining liabilities

# At-risk Example

Year	2007	2008	2009	2010	2011	2012	2013
Discount Rate	6%	6%	6%	6%	6%	6%	6%
Funding Target	100,000	100,000	107,180	114,707	122,596	130,863	139,523
Funding Target (at-risk assumption)	107,500	107,500	115,219	123,310	131,791	140,677	149,987
TNC	5,000	5,000	5,200	5,408	5,624	5,849	6,083
TNC (at-risk assumptions)	5,750	5,750	5,980	6,219	6,468	6,727	6,996
Assets	60,000	60,000	72,373	85,839	101,302	118,310	132,723
Benefit Payments	4,000	4,000	4,287	4,588	4,904	5,235	5,581
Funded Ratio	60.0%	60.0%	67.5%	74.8%	82.6%	90.4%	95.1%
Funded Ratio (At-risk)	55.8%	55.8%	62.8%	69.6%	76.9%	84.1%	88.5%
At-risk threshold (regular FT)		65.0%	70.0%	75.0%	80.0%	80.0%	80.0%
At-risk threshold (at-risk FT)		70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Plan is at-risk		TRUE	TRUE	TRUE	TRUE	FALSE	FALSE
Expense Load Applies		FALSE	FALSE	TRUE	TRUE	TRUE	TRUE
Liability Load (2000 participants)		-	-	6,332	6,672	7,027	7,399
NC Load		-	-	249	259	269	280
Number of years		1	2	3	4	-	-
Phase-in		20%	40%	60%	80%	0%	0%
Funding Target (after phase-in)		101,500	110,395	123,668	135,289	130,863	139,523
NC (after phase-in)		5,150	5,512	6,044	6,506	5,849	6,083
Funding shortfall		41,500	38,022	37,829	33,987	12,553	6,800
Prior Installments		-	7,013	7,261	8,144	8,570	6,138
PV of Prior Installments		-	36,556	32,607	31,467	26,942	6,800
New Amortization		7,013	248	883	426	(2,432)	0
MRC		12,163	12,773	14,188	15,076	11,987	12,221

Results are in \$thousands

Assumes constant 6% interest / return; no gains / losses; no credit balance

# Deduction Limit (2006, 2007): IRC §404(a)(1)(D)

For years beginning in 2006 & 2007 the maximum deduction limitation for contributions to a defined benefit plan is not less than (a) – (b) where:

	<u>Single Employer Plan</u>	<u>Multiemployer Plan</u>
(a)	150% of Current Liability	140% of Current Liability
(b)	Actuarial value of assets	Actuarial value of assets

IRC §404(a)(7) still applies for 2006 & 2007 if the employer has DC contributions (other than deferrals) (per IRS notice 2007-28).

If so, then DB contribution limit may be based on 100% of Current Liability.

IRS was late in issuing this surprising guidance. As a result, many employers may have gone over the limit for 2006, though provisions of a Technical Corrections bill could allow deductions using the 150% of current liability limit.

# Benefit Restrictions

- $AFTAP = (AV - CB + NHCE \text{ annuity purchases}) / (FTNAR + NHCE \text{ annuity purchases})$ 
  - Reflects purchase made during prior 2 years
- $AFTAP < 80\%$ 
  - Restrictions on lump sums (1/2 of total, not more than PBGC guarantee)
  - No benefit improvements (other than increases in flat-dollar plans comparable to pay increases) unless the increase is fully funded or plan funds to 80%
- $AFTAP < 60\%$ 
  - No lump sums or other 417(e) forms
  - No accruals
  - No shutdown benefits (unless fully funded)
- Must burn CB to get to 60% or to avoid LS restrictions (80%) if possible
- Exemption for plans 100% funded (without subtracting credit balance)
  - 92% / 94% / 96% transition percentages apply

# Benefit Restrictions – Timing Issues

- Restrictions are “real-time” – i.e. based on current, not prior year AFTAP
- Limited lookback permitted
  - Prior year AFTAP used for first 3 months
  - Prior year less 10% used for next 6 months
  - AFTAP assumed to be < 60% thereafter until current year certification completed
  - Incentive to shoot for 70% / 90% as minimum funding levels, rather than 60% / 80%

# **Benefit Restrictions – August 28 Proposed Regulations**

- No lump sum restrictions through April 1, 2008.
- Beginning April 1, 2008, restrictions can be avoided if the 2007 AFTAP is at least 90% before subtracting credit balance. Also, AAV must be in 90% to 110% market value corridor.
- In certifying that the 2008 percentage is at least 80%, the actuary is allowed to consider contributions for 2007 expected between the certification date and the final contribution due date.

# Funding Strategies – Short-term Considerations

- Transition rule
- Fund to avoid benefit restrictions
- Fund to avoid at-risk
- Fund to 80% to keep credit balance accessible
- Making optimal choices with excess contributions

# Funding Strategies – Transition Rule

- Eligibility
  - No DRC in 2007
  - Fund to 92% / 94% / 96% in 2008-2010; 100% thereafter
- Advantages
  - Avoids establishment of initial SAB
  - Helps to preserve credit balance
- Considerations
  - May not be worth it if the contribution needed to maintain this status is too large
  - Can abandon transition if losses make it too difficult to maintain

# Funding Strategies – Fund to Avoid Benefit Restrictions

- Options

- Preserve transition rule / 100% funded status without reducing assets for CB (90% in 2007)
- Fund to a minimum 90% level (in order to allow for a 9-month window for actuarial certification)

# Funding Strategies – Avoid At-risk / Make Credit Balance Accessible

- Generally fund to a minimum level of 80%
  - For eligibility to use credit balance COB is not subtracted from assets
  - For at-risk determination at-risk COB is subtracted from assets
  - At-risk threshold may be a little lower if at-risk liability is not much higher than not-at-risk liability

# Timing – Important Decision Points

- 9/15/2007 – final date for 2006 plan year contribution (calendar year plans)
  - Avoid 2007 DRC in order to be able to use PPA transition rule
  - Improve 1/1/2007 AFTAP in order to avoid benefit restrictions for fourth through ninth months of 2008
  - Improve 1/1/2007 FTAP (not yet defined) to 65% for purposes of avoiding at-risk in 2008
  - Improve 1/1/2007 funded ratio to 80% to enable use of credit balance in 2008. The funded ratio reflects that the actuarial asset value cannot be less than 90% or more than 110% of market value.

# Timing – Important Decision Points

- 9/15/2008 – final date for 2007 plan year contribution
  - Improve 1/1/2008 AFTAP to 60%, 70%, 80% or 90% in order to avoid benefit restrictions for first 3 or 9 months of 2009
  - Improve 1/1/2008 FTAP to 70% for purposes of avoiding at-risk in 2009
  - Improve 1/1/2008 funded ratio (Assets / FTNAR) to 80% to enable use of credit balance in 2009
  - Improve 1/1/2008 funded ratio (Assets / FTNAR) to 92% to enable use of transition rule
  - Last chance to build up the plan's COB – after this contributions give rise to PFB

# Timing – Important Decision Points

- 10/1/2008 – benefit restrictions
  - AFTAP defined as  $< 60\%$ , triggering benefit restrictions, unless actuary certifies to a different number