

# Sheet Metal Workers' National Pension Fund

Actuarial Valuation and Review  
as of January 1, 2014



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*October 24, 2014*

*Board of Trustees  
Sheet Metal Workers' National Pension Fund  
Fairfax, Virginia*

*Dear Trustees:*

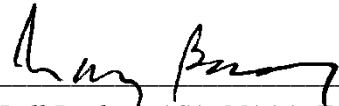
*We are pleased to submit the Actuarial Valuation and Review as of January 1, 2014. It establishes the funding requirements for the current year and analyzes the preceding year's experience. It also summarizes the actuarial data and includes the actuarial information that is required to be filed with Form 5500 to federal government agencies.*


*The census information upon which our calculations were based was prepared by the Fund Office, under the direction of Ms. Debbie Elkins. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Daniel V. Ciner, MAAA, Enrolled Actuary.*

*We look forward to reviewing this report with you at your next meeting and to answering any questions you may have.*

*Sincerely,*

*Segal Consulting, a Member of the Segal Group*

By:   
\_\_\_\_\_  
*Lall Bachan, ASA, MAAA, EA  
Senior Vice President and Actuary*

  
\_\_\_\_\_  
*Daniel V. Ciner, MAAA, EA  
Senior Vice President and Actuary*

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## SECTION 1: Actuarial Valuation Summary as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund

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### INTRODUCTION

There are several ways of evaluating funding adequacy for a pension plan. In monitoring the Plan's financial position, the Trustees should keep in mind all of these concepts.

#### > **PPA'06**

The Pension Protection Act of 2006 (PPA'06) calls on plan sponsors to actively monitor the projected Funding Standard Account credit balance, the funded percentage (the ratio of the actuarial value of assets to the present value of benefits earned to date) and cash flow sufficiency. Based on these measures, plans are then categorized as critical (*Red Zone*), endangered (*Yellow Zone*), or neither (*Green Zone*).

The "zone" rules created by PPA'06 are scheduled to expire ("sunset") for plan years beginning after December 31, 2014. However, if a pension plan is operating under a Funding Improvement Plan or a Rehabilitation Plan for the last plan year beginning in 2014, that Funding Improvement Plan or Rehabilitation Plan will remain in effect.

We will keep you informed of regulatory guidance and legislative changes as they develop.

#### > **Funding Standard Account**

The ERISA Funding Standard Account is charged with the normal cost and amortization of changes in the unfunded actuarial accrued liability measured as of each valuation date. The accumulation of actual contributions made in excess of the minimum funding standard is called the credit balance. If actual contributions fall short of the minimum funding

standard on a cumulative basis, a funding deficiency has occurred.

#### > **Cash Flow**

Pension plan funding anticipates that, over the long term, both contributions and investment earnings will be needed to cover benefit payments and expenses. To the extent that contributions are less than benefit payments, investment earnings and fund assets will be needed to cover the shortfall. In some situations, a plan may be faced with insufficient assets to cover its current obligations and will need assistance from the Pension Benefit Guaranty Corporation (PBGC).

#### > **Withdrawal Liability**

ERISA provides for assessment of withdrawal liability to employers who withdraw from a multiemployer plan based on unfunded vested benefit liabilities.

The current year's actuarial valuation results follow.

## SECTION 1: Actuarial Valuation Summary as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund

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### IMPORTANT INFORMATION ABOUT ACTUARIAL VALUATIONS

An actuarial valuation is a budgeting tool with respect to the financing of future uncertain obligations of a pension plan. As such, it will never forecast the precise future contribution requirements or the precise future stream of benefit payments. In any event, it is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare a valuation, Segal Consulting (“Segal”) relies on a number of input items. These include:

- **Plan of benefits** Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may require the award of a Social Security disability pension as a condition for receiving a disability pension from the plan. If so, changes in the Social Security law or administration may change the plan’s costs without any change in the terms of the plan itself. It is important for the Trustees to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
- **Participant data** An actuarial valuation for a plan is based on data provided to the actuary by the plan. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. For most plans, it is not possible or desirable to take a snapshot of the actual work force on the valuation date. In any event, the actuarial valuation is based on a future work force that is presumed to be the same as the active population included in the valuation, but in fact, employment varies from year to year, sometimes quite considerably. It is not necessary to have perfect data for an actuarial valuation: the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a “perfect” result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
- **Assets** Part of the cost of a plan will be paid from existing assets – the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the auditor. Some plans include assets, such as private equity holdings, real estate, or hedge funds, that are not subject to valuation by reference to transactions in the marketplace. A snapshot as of a single date may not be an appropriate value for determining a single year’s contribution requirement, especially in volatile markets. Plan sponsors often use an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
- **Actuarial assumptions** In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan’s benefits for each of those events. The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan’s assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results and will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

## **SECTION 1: Actuarial Valuation Summary as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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Given the above, the user of Segal's actuarial valuation (or other actuarial calculations) needs to keep the following in mind:

- The actuarial valuation is prepared for use by the Trustees. It includes information for compliance with federal filing requirements and for the plan's auditor. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial snapshot is a measurement at a specific date – it is not a prediction of a plan's future financial condition.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in employment levels and investment losses, not just the current valuation results.
- ERISA requires a plan's enrolled actuary to provide a statement for inclusion in the plan's annual report disclosing any event or trend that the actuary has not taken into account, if, to the best of the actuary's knowledge, such an event or trend may require a material increase in plan costs or required contribution rates. If the Trustees are currently aware of any event that was not considered in this valuation and that may materially increase the cost of the Plan, they must advise Segal, so that we can evaluate it and take it into account.
- A certification of "zone" status under PPA'06 is a separate document from the actuarial valuation.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Trustees should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the Trustees upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

As Segal Consulting has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

## SECTION 1: Actuarial Valuation Summary as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund

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The actuarial valuation report as of January 1, 2014 is based on financial and demographic information as of that date. Changes subsequent to that date are not reflected and could affect future actuarial costs of the Plan. We are prepared to work with the Trustees to analyze the effects of any subsequent developments.

### A. CHANGES SINCE LAST VALUATION

1. The Plan was previously in critical (*Red Zone*) status. For the 2014 Plan Year, the Plan emerged from critical status and was certified to be in endangered (*Yellow Zone*) status. The prior Rehabilitation Plan is no longer in effect and a Funding Improvement Plan was adopted by the Trustees.
2. Effective January 1, 2014, the formula for future benefit accruals changed to one that varies with the 3-year average market value investment return (Variable Benefit Accrual Rate "VBAR" formula). Under the VBAR formula, a percentage ("Applicable Percentage") is multiplied by a participant's hours and portion of the contribution rate subject to benefits to determine the monthly benefit accrued in a Plan Year. Based on the 3-year average market value investment return percentage of 8.25% for the Plan Years ended December 31, 2010-2012, the Applicable Percentage is 0.75% for the 2014 Plan Year. Details of this formula are provided in Exhibit VIII (Summary of Plan Provisions) of the Certificate of Actuarial Valuation.
3. Based on past experience and future expectations, the annual administrative expenses assumption was increased from \$12,000,000 to \$12,400,000, payable as of the beginning of the year.
4. The rate of return on the market value of Plan assets was 20.6% for the 2013 Plan Year. The rate of return on the actuarial value of assets was 8.0% as a result of the asset valuation method. As of January 1, 2014, the actuarial value of assets of \$3.94 billion represents 103.2% of the market value of assets of \$3.82 billion.
5. The active population decreased by 2.1% from the prior year, from 55,440 to 54,282 active participants. The average hours of contributions per active participant remained relatively level at 1,710 hours for the 2013 Plan Year (as compared to 1,712 hours for 2012 Plan Year). Chart 14 on page 22 shows more detailed information.
6. Contribution rates increased in accordance with the Alternative Schedules of the prior Rehabilitation Plan (replaced by the Funding Improvement Plan). Since benefit accruals are tied to contribution rates, increases in contribution rates are recognized as plan amendments. This valuation reflects contribution rates and rate increases bargained and reported as of the valuation date. The average contribution rate increased from \$4.12 per hour as of January 1, 2013 to \$4.35 per hour as of January 1, 2014.

**SECTION 1: Actuarial Valuation Summary as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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7. Any change in a participant's Rehabilitation Plan Schedule or Funding Improvement Plan Option due to a change in contribution rate increases under the applicable collective bargaining agreement is also treated as a plan change when recognized in the actuarial valuation.
8. Based on the census data used for this valuation (as of December 31, 2013), 75.6% active participants were covered under the First Alternative Schedule (37.3% covered under 55/30 contracts) of the prior Rehabilitation Plan, 23.8% were covered under the Default Schedule, 0.6% were covered under the benefit structure applicable to groups that did not continue bargaining contribution rate increases under the Alternative Schedules and less than 0.1% were covered under the Second Alternative Schedule (none covered under 60/30 contracts).
9. On June 26, 2013, the U.S. Supreme Court, in *United States v. Windsor*, decided that individuals in same-gender marriages were no longer prohibited from being treated as married under federal law. Generally, effective prospectively from that date, as a result of the *Windsor* decision and subsequent Internal Revenue Service guidance, defined benefit pension plans must treat all legally married spouses the same for purposes of applicable federal tax law requirements (including for example, Qualified Joint and Survivor options) regardless of the state in which the couple lives.

**B. 2014 ACTUARIAL STATUS (ZONE) CERTIFICATION**

1. The 2014 certification, previously issued on January 15, 2014, was based on the liabilities calculated in the 2013 actuarial valuation, projected to December 31, 2013, and estimated asset information as of December 31, 2013. The Plan passed the critical status emergence test under IRC Section 432(e)(4)(B) and is in endangered (*Yellow Zone*) status. The certification was based upon the interpretation that a plan which was in critical status and not projected to have a projected funding deficiency within ten years, taking into account amortization extensions, passes the emergence test under IRS Section 432(e)(4)(B) and is no longer in critical status (*Red Zone*), even if the plan is described by one or more of the subparagraphs under IRC Section 432(b)(2). The projected funded percentage was 59.1%.
2. The Trustees adopted a Funding Improvement Plan on February 26, 2014. The plan of benefits and contribution rate increases required by the various Funding Improvement Plan Options are the same as those required by the corresponding prior Rehabilitation Plan Schedules. Benefit provisions that applied to classifications of employment that were covered under the Rehabilitation Plan and Schedules continue to apply, unless the collective bargaining agreement no longer reflects required contribution rate increases. See Exhibit VIII of the Certificate of Actuarial Valuation for details.



**SECTION 1: Actuarial Valuation Summary as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**C. FUNDED PERCENTAGE AND FUNDING STANDARD ACCOUNT**

1. Based on this January 1, 2014 actuarial valuation, the funded percentage as of that date is 59.1%. This will be reported on the 2014 Annual Funding Notice to be provided within 120 days after the end of this plan year.
2. The credit balance in the Funding Standard Account as of December 31, 2013 (recognizing the five-year amortization extension) was \$119.9 million, a decrease of \$20.7 million from the prior year. PPA'06 requires plan sponsors to monitor the projected credit balance.
3. A 10-year projection of the Funding Standard Account (recognizing the five-year amortization extension) indicates that the credit balance is expected to remain positive throughout the projection period, assuming future market value rates of return of 7.50%, the Applicable Percentage under the VBAR formula remains level at 0.75%, administrative expenses increase by 3.0% per year, all other experience emerges as projected and there are no future changes in the Plan provisions, law/regulations or other actuarial assumptions. Future contribution rate increases are based on current collective bargaining agreements only, and do not recognize future bargained increases under the Funding Improvement Plan.  
  
If the five-year amortization extension is not considered, the Plan is projected to have funding deficiency throughout the projection period.

These projections takes into consideration all deferred net investment gains and losses.

The projections shown in the prior year's valuation indicated a projected funding deficiency beginning December 31, 2016 (recognizing the five-year amortization extension). The improvement in the projections is primarily due to the better than expected market value investment return during 2013 and the change in the formula for future benefit accruals.

**SECTION 1: Actuarial Valuation Summary as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**D. CASH FLOW**

Based on this valuation, the projected investment earnings and contribution income is projected to exceed benefit payments and administrative expenses for at least 10 years, assuming experience is consistent with the January 1, 2014 assumptions and there are no future changes in the Plan provisions, law/regulations, or actuarial assumptions. As a result, the market value of assets is projected to increase gradually. The projected assets are shown in Section 2, Subsection G. If requested by the Trustees, we can perform additional projections of the financial status of the Plan.

**E. WITHDRAWAL LIABILITY**

The actuarial present value of vested Plan benefits for withdrawal liability purposes is not the same figure as determined for FASB ASC 960 purposes because the two calculations involve different actuarial assumptions. A separate detailed report on withdrawal liability is available.

**SECTION 1: Actuarial Valuation Summary as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**SUMMARY OF KEY VALUATION RESULTS**

	<b>2014</b>	<b>2013</b>
<b>Certified Zone Status</b>	<i>Endangered</i>	<i>Critical</i>
<b>Demographic Data:</b>		
Number of active participants	54,282	55,440
Number of inactive participants with vested rights	34,824	34,161
Number of retired participants and beneficiaries	46,833	45,974
<b>Assets:</b>		
Market value of assets (MVA) <sup>1</sup>	\$3,818,123,174	\$3,226,583,524
Actuarial value of assets (AVA) <sup>1</sup>	3,940,831,853	3,711,928,315
AVA as a percent of MVA	103.2%	115.0%
<b>Statutory Funding Information:</b>		
Minimum funding standard <sup>2</sup>	\$252,678,599	\$284,054,497
Maximum deductible contribution	12,267,459,031	11,888,647,007
Expected contributions for coming Plan Year	389,895,664	378,061,160
Actual contributions <sup>3</sup>	--	389,378,479
Annual Funding Notice percentage	59.1%	57.4%
Funding Standard Account deficiency projected in Plan Year ending <sup>4</sup>	N/A	2016
<b>Cost Elements on a Funding Standard Account Basis:</b>		
Normal cost, including administrative expenses	\$96,701,186	\$145,868,887
Actuarial accrued liability	6,671,514,903	6,463,106,428
Unfunded actuarial accrued liability (based on AVA)	2,730,683,050	2,751,178,113

<sup>1</sup>Excludes receivable withdrawal liability payments of \$35,711,069 for 2013 and \$18,670,260 for 2012

<sup>2</sup>Amount required to maintain a \$0 credit balance

<sup>3</sup>Includes withdrawal liability payments, liquidated damages, and adjustment for withdrawal liability receivable

<sup>4</sup>Recognizes the five-year amortization extension; contribution rate increases are based on current collective bargaining agreements only

**SECTION 1: Actuarial Valuation Summary as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**COMPARISON OF FUNDED PERCENTAGES**

	2014		Funded Percentages as of January 1	
	Liability	Assets*	2014	2013
1. Present Value of Future Benefits	\$7,423,989,631	\$3,940,831,853	53.1%	48.5%
2. PPA'06 Liability and Annual Funding Notice	6,671,514,903	3,940,831,853	59.1%	57.4%
3. Accumulated Benefits Liability	6,671,514,903	3,818,123,174	57.2%	49.9%
4. Current Liability	11,291,679,667	3,818,123,174	33.8%	30.1%

*\*Excludes receivable withdrawal liability payments of \$35,711,069*

Notes:

1. Includes the value of benefits earned through the valuation date (accrued benefits) plus the value of benefits projected to be earned in the future for current participants assuming the Applicable Percentage under the VBAR formula remains level at 0.75%. Used to develop the actuarial accrued liability, based on long-term funding investment return assumption of 7.50% and the actuarial value of assets. The funded percentage using market value of assets is 51.4% for 2014 and 42.2% for 2013.
2. Measures present value of accrued benefits using the current participant census and financial data. As defined by the Pension Protection Act of 2006, based on long-term funding investment return assumption of 7.50% and the actuarial value of assets.
3. Provides present value of accrued benefits for disclosure in the audited financial statements, based on long-term funding investment return assumption of 7.50%, and the market value of assets.
4. Used to determine maximum tax-deductible contributions and is reported on Schedule MB to Form 5500. Based on the present value of accrued benefits, using a prescribed mortality table and investment return assumption of 3.64% for 2014 and 3.78% for 2013, and the market value of assets. The funded percentage is also shown on the Schedule MB if it is less than 70%.

Disclosure: These measurements are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for or the amount of future contributions.

**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**A. PARTICIPANT DATA**

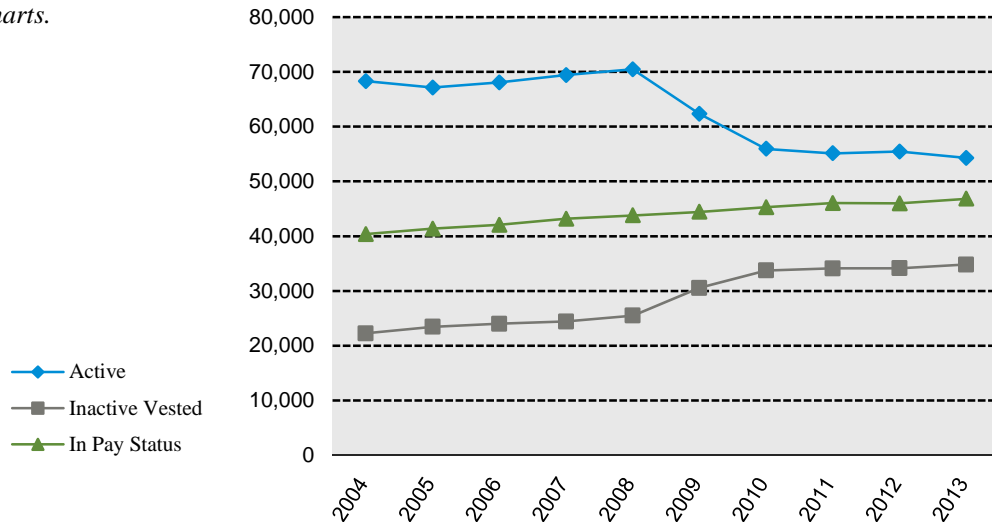
The Actuarial Valuation and Review considers the number and demographic characteristics of covered participants, including 54,282 active participants, 34,824 inactive vested participants (including beneficiaries eligible for deferred benefits), and 46,833 pensioners and beneficiaries as of December 31, 2013.

This section presents a summary of significant statistical data on these participant groups. More detailed information for this valuation year and the preceding year can be found in Section 3, Exhibits A, B and C.

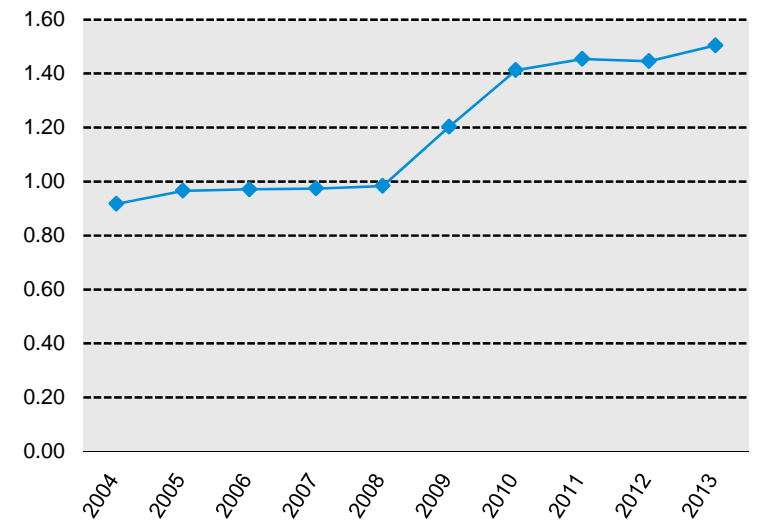
Chart 2 shows the number of non-active participants relative to the number of active participants, one indication of the Plan's maturity. A higher ratio shows a more mature plan.

*A historical perspective of how the participant population has changed over the past several years can be seen in these charts.*

**CHART 1**  
**Participant Population as of December 31, 2004 – 2013**



**CHART 2**  
**Ratio of Non-Actives to Actives as of December 31, 2004 – 2013**



**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

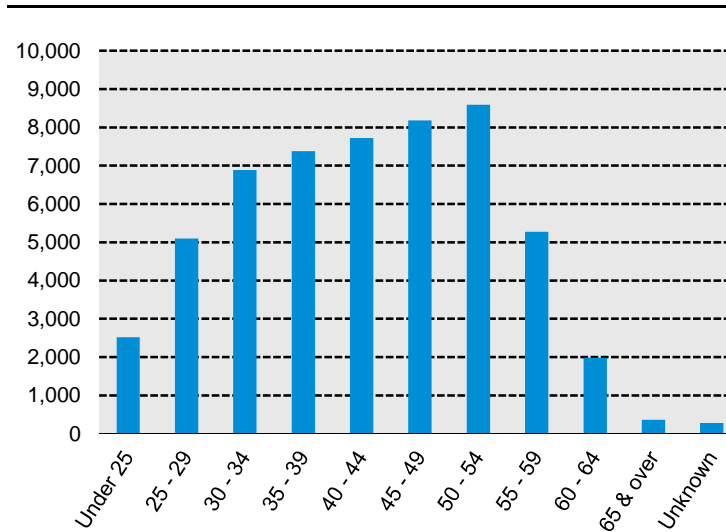
**Active Participants**

Pension plan costs are affected by the age and pension credits of active participants. In this year's valuation, there were 54,282 active participants with an average age of 42.8 and average pension credits of 14.2. This compares to 42.7 and 14.1, respectively, for the 55,440 active participants in the prior year.

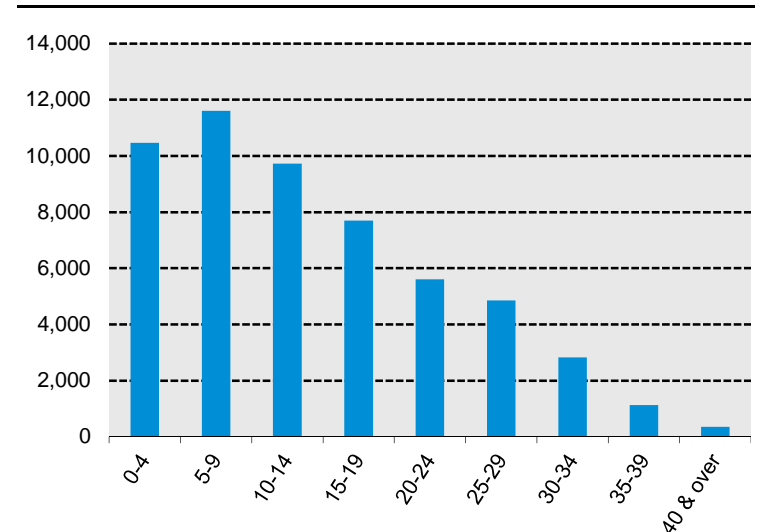
Among active participants, there were 280 with unknown age. The actuarial calculations were adjusted for missing information by assuming that it was the same as information provided for other active participants with similar known characteristics.

*These charts show a distribution of active participants by age and by pension credits.*

**CHART 3**  
**Distribution of Active Participants by Age as of December 31, 2013**



**CHART 4**  
**Distribution of Active Participants by Pension Credits as of December 31, 2013**



**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**Inactive Vested Participants**

Participants who leave the coverage of the Plan after satisfying the requirements for a deferred pension or an immediate pension but elect to defer commencement are considered to be “inactive vested” and are included in the pension plan cost. In this year’s valuation, there were 34,246 inactive vested participants with an average age of 50.4 and average monthly benefit of \$452. This compares to 50.2 and \$447, respectively, for the 33,644 inactive vested participants in the prior year.

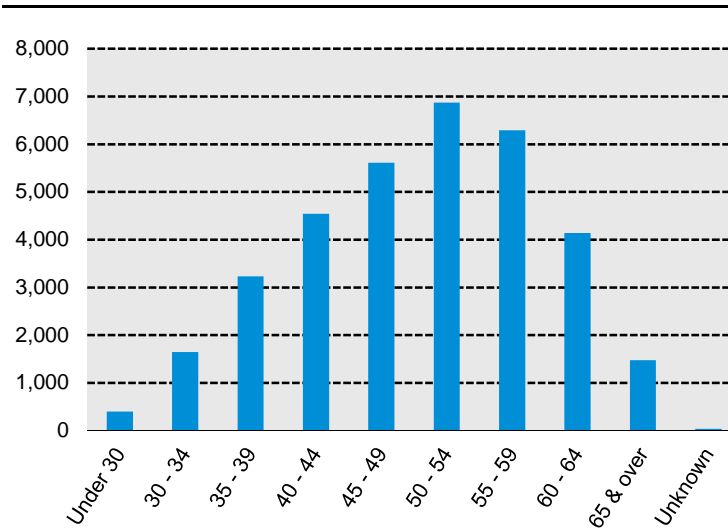
Among inactive vested participants, there were 36 with unknown age. The actuarial calculations were adjusted for missing information by assuming that it was the same as information provided for other inactive vested participants with similar known characteristics.

In addition, there were 578 beneficiaries eligible for deferred benefits in this valuation as compared to 517 beneficiaries in the prior year.

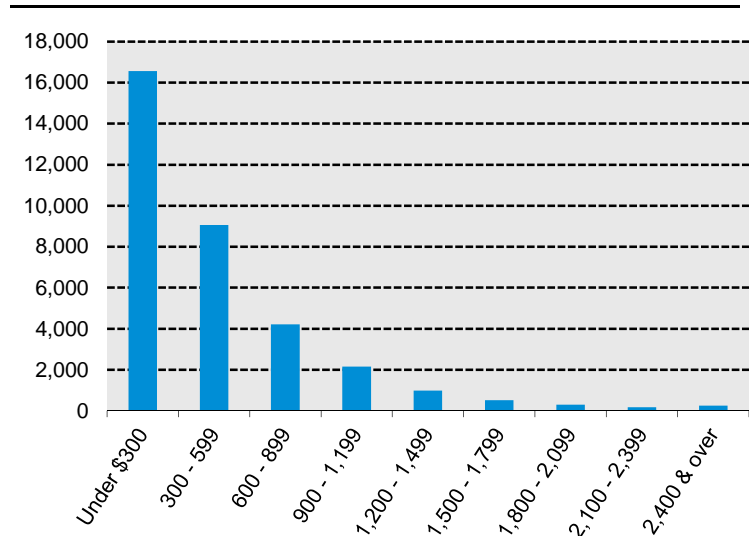
No cost is included for other inactive participants, even though some may return to active employment before incurring a permanent break in service.

*These charts show a distribution of inactive vested participants by age and by monthly amount.*

**CHART 5**  
**Distribution of Inactive Vested Participants by Age as of December 31, 2013**



**CHART 6**  
**Distribution of Inactive Vested Participants by Monthly Amount as of December 31, 2013**



**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**Pensioners and Beneficiaries**

During the fiscal year ended December 31, 2013, there were 2,065 pensions awarded, as detailed in this chart. The average monthly pension awarded, after adjustment for optional forms of payment, was \$930. The chart below presents both the number and average monthly amount of pensions awarded in each of the years shown, by type and in total.

**CHART 7**

**Pension Awards: 2004 – 2013**

Year Ended December 31	Total		Normal		Standard Early		Special Early*		55/30 (60/30)		Disability	
	Number	Average Amount	Number	Average Amount	Number	Average Amount	Number	Average Amount	Number	Average Amount	Number	Average Amount
2004	2,414	\$1,289	307	\$542	305	\$507	1,024	\$1,128	521	\$2,714	257	\$864
2005	1,992	1,163	249	557	308	488	909	1,035	376	2,577	150	777
2006	1,875	1,110	281	547	285	466	790	1,070	302	2,571	217	794
2007	1,934	1,113	287	599	449	723	713	1,084	266	2,566	219	907
2008	1,763	951	342	547	387	545	732	972	214	2,343	88	740
2009	1,765	838	411	609	499	342	597	1,008	174	2,357	84	542
2010	1,909	868	457	564	516	406	630	1,001	200	2,516	106	523
2011	1,856	967	505	582	333	434	701	1,065	229	2,453	88	543
2012	1,644	972	465	651	387	386	499	1,190	214	2,383	79	536
2013	2,065	930	592	645	563	440	585	1,090	240	2,552	85	477

\*Includes those that retired on Age 62 Pension



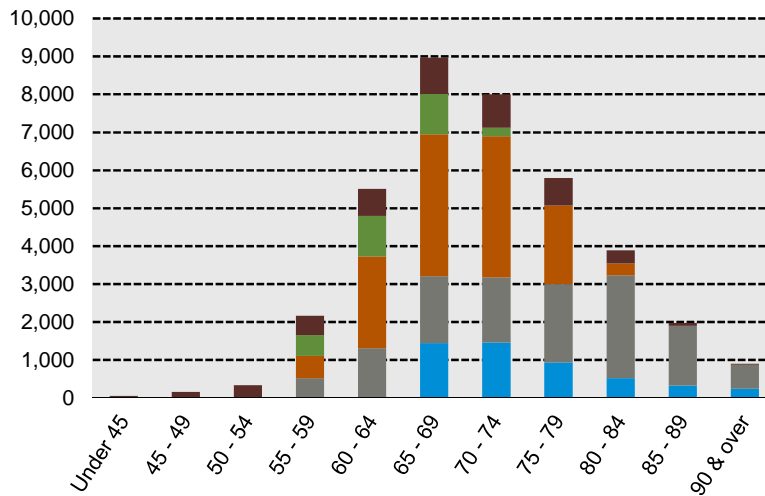
**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

As of this year's valuation date, 37,648 pensioners and 9,096 beneficiaries were receiving total monthly benefits of \$36,628,519 (including one-twelfth of annual COLA payments). For comparison, in the previous year, there were 37,165 pensioners and 8,774 beneficiaries receiving monthly benefits of \$35,647,132 (including one-twelfth of annual COLA payments). There were 89 suspended pensioners in this valuation compared with 35 in the prior year.

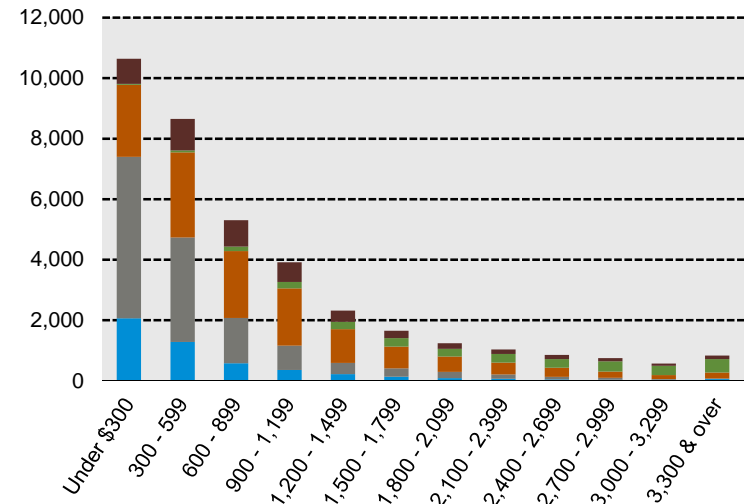
*These charts show the distribution of the current pensioners based on their age and monthly amount (excluding COLA amounts), by type of pension. Special Early includes those that retired on an Age 62 Pension.*

- Disability
- 55/30 (60/30)
- Special Early
- Standard Early
- Normal

**CHART 8**  
**Distribution of Pensioners by Type and by Age as of December 31, 2013**



**CHART 9**  
**Distribution of Pensioners by Type and by Monthly Amount as of December 31, 2013**



**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

In Chart 10, additions to the pension rolls include new pensions awarded. Terminations include pensioners who died or were suspended during the prior plan year, less suspended who were reinstated. The change in average age and average amounts of pensioners in payment status is shown as the Fund matures over time.

*This chart shows a year-by-year history of changes in the pensioner group.*

**CHART 10**  
**Progress of Pension Rolls: 2004 – 2013**

Year Ended December 31	Additions	Terminations	In Payment Status at Year End		
			Number	Average Age	Average Amount*
2004	2,414	1,414	33,947	70.0	\$831
2005	1,992	1,316	34,623	70.2	852
2006	1,875	1,400	35,098	70.4	873
2007	1,934	1,285	35,747	70.5	852
2008	1,763	1,491	36,019	70.8	861
2009	1,765	1,376	36,408	71.0	854
2010	1,909	1,425	36,892	71.2	850
2011	1,856	1,427	37,321	71.4	857
2012	1,644	1,800	37,165	71.5	868
2013	2,065	1,582	37,648	71.7	877

*\*Includes one-twelfth of annual COLA payments*

**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

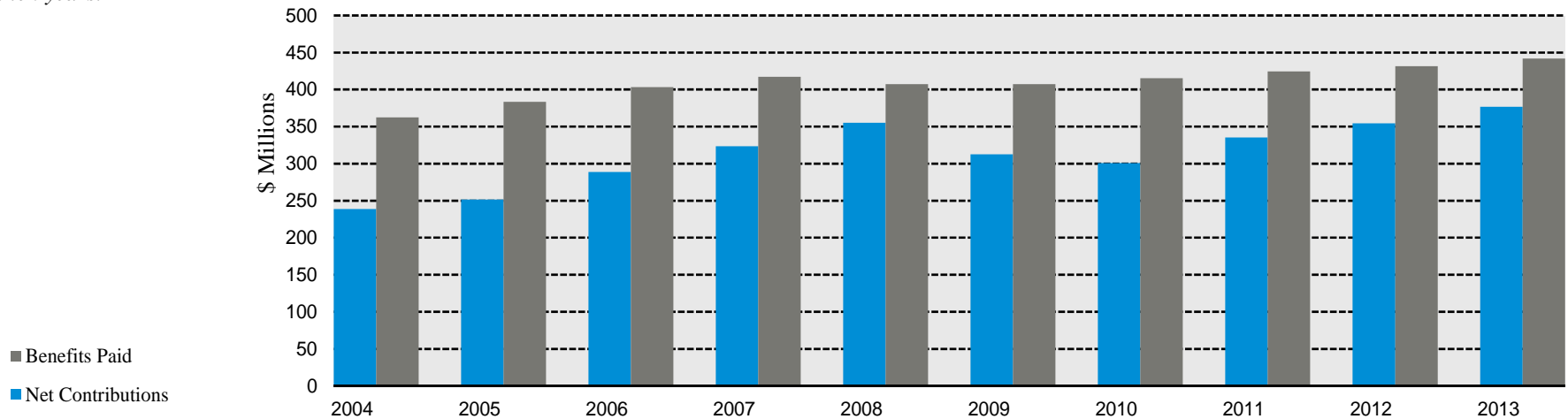
**B. FINANCIAL INFORMATION**

Pension plan funding anticipates that, over the long term, both contributions (less administrative expenses) and investment earnings (less investment fees) will be needed to cover benefit payments. Pension plan assets change as a result of the net impact of these income and expense components. A summary of these transactions for the valuation year is presented in Section 3, Exhibit D.

Contributions net of administrative expenses were \$376,351,736 for the year. Benefit payments during the year totaled \$441,792,780 and are projected to increase to approximately \$563 million ten years from now. To the extent that future contributions are projected to be less than benefit payments, investment earnings or fund assets will be needed to cover the shortfall.

*This chart depicts the net employer contributions and benefits paid over the last ten years.*

**CHART 11**  
**Comparison of Net Employer Contributions and Benefits Paid for Years Ended December 31, 2004 – 2013**



**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

Because the Plan is funded by negotiated contribution rates, it is desirable to have a level and predictable pension plan cost from one year to the next. For this reason, the Trustees have approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the pension plan cost are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized gains and losses and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

There are \$122,708,679 of net losses deferred for future recognition. The determination of the actuarial value of assets also reflects Funding Relief.

*This chart shows the determination of the actuarial value of assets as of December 31, 2013.*

**CHART 12**  
**Determination of Actuarial Value of Assets as of December 31, 2013**

1	Market value of assets, December 31, 2013			\$3,818,123,174
2	Calculation of unrecognized return	Original	Unrecognized	
		<u>Amount*</u>	<u>Return**</u>	
	(a) Year ended December 31, 2013	\$417,070,836	\$333,656,668	
	(b) Year ended December 31, 2012	130,519,310	78,311,586	
	(c) Year ended December 31, 2011	-281,483,650	-112,593,460	
	(d) Year ended December 31, 2010	192,248,053	38,449,611	
	(e) Year ended December 31, 2009	389,485,427	0	
	(f) Year ended December 31, 2008	-1,151,332,711	<u>-460,533,084</u>	
	(g) Total unrecognized return			-122,708,679
3	Preliminary actuarial value: (1) - (2g)			3,940,831,853
4	Adjustment to be within 20% corridor			0
5	Final actuarial value of assets as of December 31, 2013: (3) + (4)			<u>\$3,940,831,853</u>
6	Actuarial value as a percentage of market value: (5) ÷ (1)			103.2%
7	Amount deferred for future recognition: (1) - (5)			-\$122,708,679

\* Total return minus expected return on a market value basis

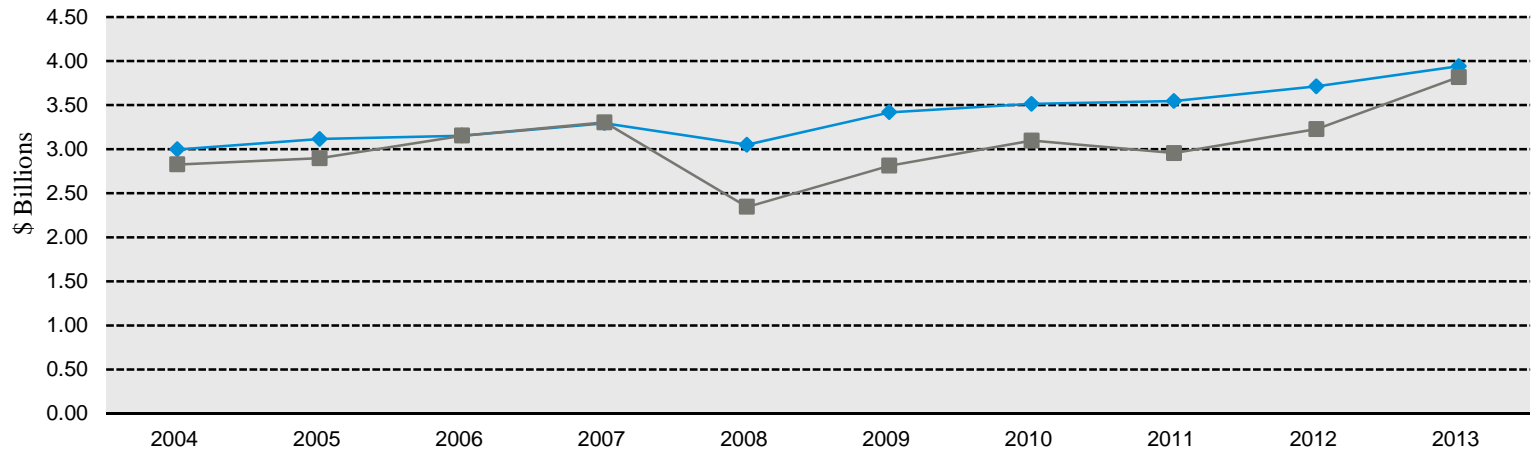
\*\* Recognition at 10% per year over 10 years for year ended December 31, 2008 due to Funding Relief and 20% per year over 5 years for remaining years

**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

Both the actuarial value and the market value of assets are representations of the Fund's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The actuarial value is significant because it is subtracted from the Plan's total actuarial accrued liability to determine the portion that is not funded and is used to determine the PPA'06 funded percentage. Amortization of the unfunded portion is an important element in the contribution requirements of the Plan as detailed in Subsection E.

*This chart shows how the actuarial value of assets and the market value of assets have changed from 2004 to 2013.*

**CHART 13**  
**Actuarial Value of Assets vs. Market Value of Assets as of December 31, 2004 - 2013**



**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**C. EMPLOYMENT EXPERIENCE**

The Trustees are in the best position to select the appropriate employment level assumption to use in long term planning for funding the Plan. Total hours of contributions, number of actives and their average hours of contributions are shown in Chart 14.

2014 actuarial certification was that the number of active participants would decrease by 2% during 2013 (as compared to 55,440 active participants as of December 31, 2012) and remain level thereafter and, on the average, contributions will be made for each active for 1,650 hours each year.

Certifications under PPA'06 include a projection of future contributions. Any projection of industry activity, including future employment and contribution levels, must be based on reasonable information for the projection period provided by the Trustees. The industry activity assumption used for the

The long-term assumption for projecting contribution income is 1,650 hours for each active participant. We look to the Trustees for guidance as to whether this continues to be reasonable for the long term.

*This chart provides a history of the various measures of employment.*

**CHART 14**  
**Employment History: 2004 - 2013**

Year Ended December 31	Total Hours of Contributions		Active Participants		Average Hours of Contributions	
	Number	Percent Change	Number	Percent Change	Number	Percent Change
2004	119,042,804	-0.8%	68,286	-1.1%	1,743	0.3%
2005	117,802,302	-1.0%	67,130	-1.7%	1,755	0.7%
2006	122,074,466	3.6%	68,046	1.4%	1,794	2.2%
2007	125,691,762	3.0%	69,408	2.0%	1,811	0.9%
2008	126,093,952	0.3%	70,448	1.5%	1,790	-1.2%
2009	103,117,103	-18.2%	62,321	-11.5%	1,655	-7.5%
2010	91,693,289	-11.1%	55,940	-10.2%	1,639	-1.0%
2011	92,440,381	0.8%	55,131	-1.4%	1,677	2.3%
2012	94,923,571	2.7%	55,440	0.6%	1,712	2.1%
2013	92,829,393	-2.2%	54,282	-2.1%	1,710	-0.1%
Five-year average hours:					1,679	
Ten-year average hours:					1,729	

*Note: The total hours of contributions are based on total hours reported in the census data.*

**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**D. ACTUARIAL EXPERIENCE**

To calculate the cost requirements of the Plan, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions and, to the extent that there are differences in that year, the contribution requirement is adjusted. If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long run, experience will

return to that originally assumed. For contribution requirements to remain stable, assumptions should approximate experience.

When compared to the projected actuarial accrued liability of \$6,631,880,454 as of December 31, 2013, the net experience variation was not significant. On the following pages is a discussion of the major components of the actuarial experience.

*This chart provides a summary of the prior year's actuarial experience.*

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**CHART 15**  
**Actuarial Experience for the Year Ended December 31, 2013**

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1	Net gain from investments*	\$18,033,864
2	Net loss from administrative expenses	-540,417
3	Net loss from other experience	<u>-35,119,545</u>
4	Net experience loss: (1) + (2) + (3)	<u>-\$17,626,098</u>

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\* Details in Chart 16.

## SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund

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### Investment Rate of Return

Because earnings on investments significantly affect the cost of the Plan, an assumption is made about the rate of return on plan assets. The rate of return is investment income net of investment expenses, expressed as a percentage of the average actuarial value of assets during the year.

Investment income for the purposes of the actuarial valuation consists of projected investment income at the actuarially assumed rate, the adjustment for market value changes, the adjustment of the value of debt securities, and the gain or loss on the sale of debt securities. Investment expenses are subtracted.

The actuarial value of assets does not yet fully recognize past investment losses. As a result, the impact of favorable future investment returns will be dampened as recognition of past investment losses is phased in. Therefore, the rate of return on an actuarial basis is likely to fall below the assumed rate of return as unrecognized losses are reflected, even if market returns are favorable.

*This chart shows the portion of the gain due to investment experience.*

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### CHART 16

#### Actuarial Value Investment Experience for the Year Ended December 31, 2013

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1	Net investment income	\$293,987,827
2	Average actuarial value of assets	3,679,386,171
3	Rate of return: (1) ÷ (2)	7.99%
4	Assumed rate of return	7.50%
5	Expected net investment income: (2) x (4)	\$275,953,963
6	Actuarial gain: (1) – (5)	<u>\$18,033,864</u>

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**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

For your information, the following chart shows the rate of return on an actuarial basis compared to the market value investment return for the last nineteen years, including three-year, five-year, ten-year and nineteen-year averages. However, actuarial planning is long term as the obligations of pension plans are expected to continue for the lifetime of its active and inactive participants.

As indicated below, the experience in the past few years has shown both higher and lower rates of return than the long-term assumption. Overall, interest rates have declined substantially in the current economic environment. Based upon this experience, the current asset allocation, and future expectations, we have maintained the assumed long-term rate of return of 7.50%. However, we will continue to monitor the plan's investment returns and may revise our assumed long-term rate of return in a future actuarial valuation, if warranted.

**CHART 17**  
**Investment Return – Actuarial Value vs. Market Value: 1995 - 2013**

Year Ended December 31	Actuarial Value Investment Return*		Market Value Investment Return		Year Ended December 31	Actuarial Value Investment Return*		Market Value Investment Return	
	Amount	Percent	Amount	Percent		Amount	Percent	Amount	Percent
1995	\$163,234,797	8.55%	\$334,727,761	20.69%	2005	\$249,128,731	8.50%	\$201,693,098	7.31%
1996	170,828,792	8.52%	229,161,544	12.12%	2006	153,183,390	5.01%	370,984,124	13.07%
1997	168,993,853	8.62%	283,878,769	14.49%	2007	235,073,194	7.57%	243,628,390	7.84%
1998	205,324,555	8.50%	314,421,636	13.04%	2008	-193,649,545	-5.93%	-905,604,097	-27.64%
1999	363,401,597	15.40%	190,707,659	7.52%	2009	463,585,989	15.45%	561,785,116	24.45%
2000	226,303,645	8.50%	3,560,195	0.13%	2010	209,948,846	6.25%	398,844,675	14.48%
2001	159,799,521	5.63%	-36,479,361	-1.39%	2011	122,036,155	3.52%	-52,598,539	-1.72%
2002	-154,706,918	-5.26%	-194,048,412	-7.69%	2012	243,627,164	6.95%	349,221,467	11.98%
2003	229,560,422	8.50%	458,228,754	20.44%	2013	293,987,827	7.99%	656,623,939	20.56%
2004	239,619,449	8.50%	298,949,842	11.55%					
					Total	\$3,549,281,464		\$3,707,686,560	
							Most recent three-year average return:	6.15%	10.27%
							Most recent five-year average return:	7.84%	13.46%
							Most recent ten-year average return:	6.26%	7.38%
							Nineteen-year average return:	6.57%	7.53%

\*The actuarial returns for 1999, 2006 and 2008 include the effect of a change in the method for determining the actuarial value of assets.

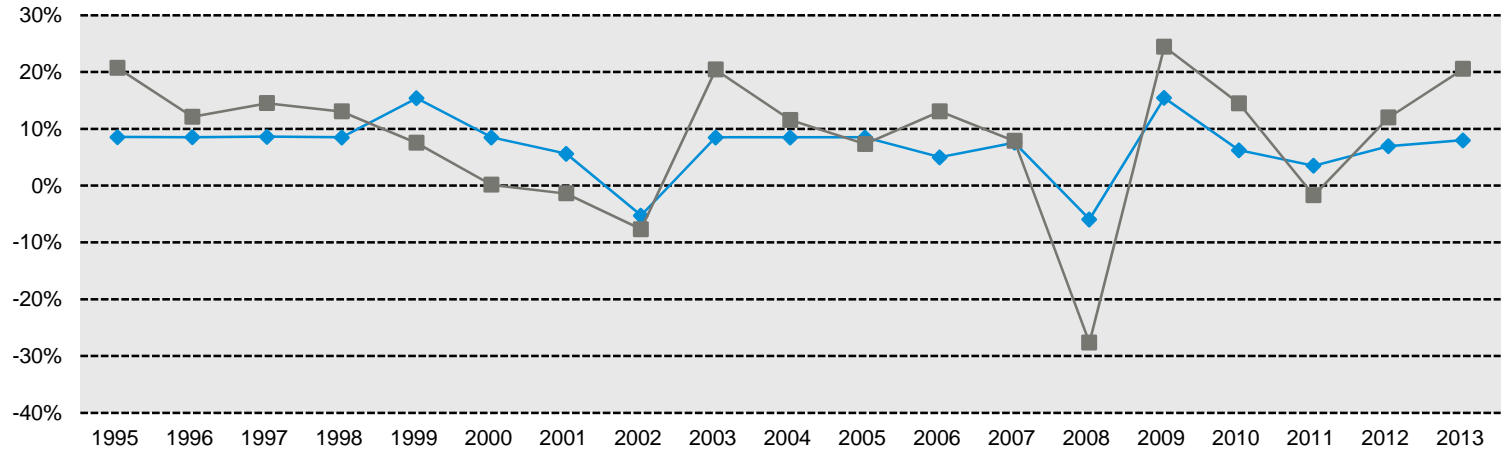
Note: Each year's yield is weighted by the average asset value in that year. The average return for most recent three years is the arithmetic average of the returns. For average returns over five or more years, the average return is weighted by the asset value.

**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

Subsection B described the actuarial asset valuation method that gradually recognizes fluctuations in the market value rate of return. The goal of this is to stabilize the actuarial rate of return and to produce more level pension plan costs.

*This chart illustrates how this method has actually worked over the past nineteen years. The actuarial returns for 1999, 2006 and 2008 reflect a change in asset method.*

**CHART 18**  
**Market Value and Actuarial Rates of Return for Years Ended December 31, 1995 - 2013**



## SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund

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### **Administrative Expenses**

Administrative expenses for the year ended December 31, 2013 totaled \$12,999,397, compared to the assumption of \$12,000,000 payable as of the beginning of the year. This resulted in a loss of \$540,417 for the year when adjusted for timing. We have increased the assumption of \$12,000,000 to \$12,400,000 for the current year.

### **Mortality Experience**

Mortality experience (fewer or more than expected deaths) yields actuarial gains or losses. The healthy mortality assumption was updated for the January 1, 2011 actuarial valuation. The average number of deaths for nondisabled pensioners over the past three years was 1,358 per year compared to 1,312 projected deaths per year. The average number of deaths for disabled pensioners over the past three years was 216 per year compared to 244 projected deaths per year. We will continue to monitor the mortality experience of the Plan.

### **Other Experience**

There are other differences between projected and actual experience that appear when a new valuation is compared with projections from the previous valuation. These include:

- the extent of turnover among the participants,
- retirement experience (earlier or later than projected), and
- the number of disability retirements.

Another difference may be a significant change among the participants, such as the reemployment of previously inactive participants who are not vested but have credit for prior service.

The net loss from mortality and other experience amounted to \$35,119,545 for the last plan year, which is approximately 0.5% of the projected actuarial accrued liability. This was primarily due to fewer deaths than expected among pensioners at earlier ages and more retirements than expected among active and inactive vested participants.

### **Possible Assumptions Changes**

We may need to update the mortality assumptions in a future valuation to reflect updated mortality improvement scales and to better align expected deaths at individual ages with emerging experience.

**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**E. SUMMARY OF CONTRIBUTION REQUIREMENTS**

**Changes Since Last Valuation**

**Plan Changes**

Effective January 1, 2014, the formula for future benefit accruals changed to one that varies with the 3-year average market value investment return (Variable Benefit Accrual Rate “VBAR” formula). Under the VBAR formula, a percentage (“Applicable Percentage”) is multiplied by a participant’s hours and portion of the contribution rate subject to benefits to determine the monthly benefit accrued in a Plan Year. Details of this formula are provided in Exhibit VIII (Summary of Plan Provisions) of the Certificate of Actuarial Valuation.

In addition, due to the change in the Plan’s status from critical (*Red Zone*) to endangered (*Yellow Zone*), the Rehabilitation Plan is no longer in effect and the Trustees adopted a Funding Improvement Plan. Benefit provisions that applied to classifications of employment that were covered under the Rehabilitation Plan and Schedules continue to apply, unless the collective bargaining agreement no longer reflects required contribution rate increases. See Exhibit VIII of the Certificate of Actuarial Valuation for details.

**Contribution Rate Changes**

Contribution rates increased in accordance with the Alternative Schedules of the prior Rehabilitation Plan (replaced by the Funding Improvement Plan). Since benefit accruals are tied to contribution rates, increases in contribution rates are recognized as plan amendments. This valuation reflects contribution rates and rate increases bargained and reported as of the valuation date. The average contribution rate increased from \$4.12 per hour as of January 1, 2013 to \$4.35 per hour as of January 1, 2014.

Any change in a participant’s Rehabilitation Plan Schedule or Funding Improvement Plan Option due to a change in contribution rate increases under the applicable collective bargaining agreement is also treated as a plan change when recognized in the actuarial valuation.

**Changes in Actuarial Assumptions**

Based on past experience and future expectations, the annual administrative expenses assumption was increased from \$12,000,000 to \$12,400,000, payable as of the beginning of the year.

*This chart summarizes the contribution information for the valuation year.*

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**CHART 19**

**Contribution Requirements vs. Contributions Projected for Year Beginning January 1, 2014**

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ERISA minimum funding standard	\$252,678,599
Projected contributions	389,895,664
Maximum deductible contribution	12,267,459,031

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## SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund

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### **Contributions**

ERISA imposes a minimum funding standard that requires the Plan to maintain a Funding Standard Account.

Contributions meet the legal requirement on a cumulative basis if that account shows no deficiency. The Funding Standard Account for the prior Plan Year is shown in Section 3, Exhibit G.

Employers who contribute to defined benefit pension plans are also subject to maximum deductible contribution limitations prescribed by the IRS. For the development of the maximum deductible contribution amount, see Section 3, Exhibit H.

Based on the assumption that 54,282 participants will work an average of 1,650 hours at a \$4.3532 average contribution rate, the contributions projected for the year beginning January 1, 2014 are \$389,895,664 as shown in Chart 19. Contributions for the year beginning January 1, 2014 are projected to be less than the maximum allowable deduction level and to exceed the minimum funding standard.

### **Funding Standard Account**

On December 31, 2013, the Funding Standard Account had a credit balance of \$119,925,676 (recognizing the five-year amortization extension). This reserve may be drawn upon to meet charges to the account if contributions fall below the net charge in the future.

The minimum funding standard for the year beginning January 1, 2014, as shown in Chart 19, is \$252,678,599. For the year beginning January 1, 2014, the minimum contribution necessary to avoid a decrease in the current credit balance is \$359,136,650.

**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**Projection of Funding Standard Account**

A 10-year projection of the Funding Standard Account based on this 2014 valuation, assuming the Plan will experience a market rate of return equal to 7.50% each year into the future, the Applicable Percentage under the VBAR formula remains level at 0.75%, administrative expenses increase by 3.0% per year, and that all other experience emerges as projected, and with no plan amendments or changes to law/regulation or other actuarial assumptions, indicates the credit balance (recognizing the five-year amortization extension) will remain positive throughout the projection period. If the five-year amortization extension is not considered, the Plan is projected to have funding deficiency throughout the projection period.

Chart 20 shows the projected credit balance in the Funding Standard Account with and without the five-year amortization extension that was effective January 1, 2009.

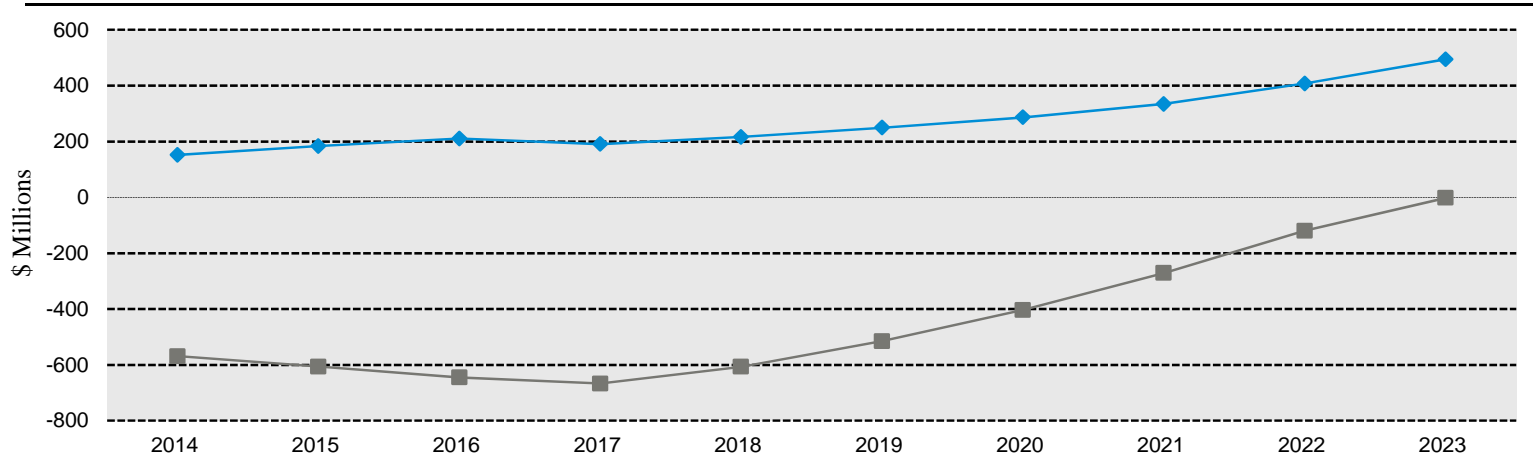
The projection shown is not the same as that used to determine the annual certification required under PPA '06 prepared earlier this year. It is also not the same as that will be used to annually review the Funding Improvement Plan.

The chart shows how the credit balance would be affected by a specific industry activity and investment return scenario. If requested, we are available to develop additional scenarios based on different assumptions.

*This chart shows the projected credit balance for the next 10 years. This projection assumes that the number of active employees (and hours per active employee) will remain level, and also assumes that current accumulated deferred investment gains and losses are recognized in accordance with the asset valuation method.*

**CHART 20**

**Projected Funding Standard Account Credit Balance for Years Ending December 31**



## SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund

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### F. PENSION PROTECTION ACT OF 2006 (PPA'06)

PPA'06 calls on trustees to actively monitor their plans' financial prospects to identify emerging funding challenges so they can be addressed effectively. Trustees are required to review formal projections of the financial status of their plans at least annually. Details are shown in Section 3, Exhibit I.

The Trustees adopted a Funding Improvement Plan on February 26, 2014. The plan of benefits and contribution rate increases required by the Funding Improvement Plan Options are the same as those required by the corresponding prior Rehabilitation Plan Schedules.

### 2014 Actuarial Status Certification

The actuarial certification of plan status under PPA'06 is required not later than the 90th day of the plan year.

The 2014 certification was based on the liabilities calculated in the 2013 actuarial valuation, adjusted for subsequent events and projected to December 31, 2013, and estimated asset information as of December 31, 2013. In addition, the Trustees provided an industry activity assumption that the number of active participants would decrease by 2% during 2013 (as compared to 55,440 active participants as of December 31, 2012) and remain level thereafter and, on the average, contributions will be made for each active for 1,650 hours each year.

The Plan passed the critical status emergence test under IRC Section 432(e)(4)(B) and is in endangered (Yellow Zone) status. The certification was based upon the interpretation that a plan which was in critical status and not projected to have a projected funding deficiency within ten years, taking into account amortization extensions, passes the emergence test under IRS Section 432(e)(4)(B) and is no longer in critical status (Red Zone), even if the plan is described by one or more of the subparagraphs under IRC Section 432(b)(2). The projected funded percentage was 59.1%.

**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**G. SOLVENCY PROJECTION**

PPA'06 requires Trustees to monitor plan solvency, the ability to pay benefits when due. If a plan is projected to be unable to pay benefits within five years (or within seven years, if the PPA'06 funded percentage is less than 65%), the plan will be categorized in the *Red Zone*.

The projection in Chart 21 only recognizes contribution rate increases bargained as of the valuation date (increases anticipated to be bargained in the future in accordance with the Funding Improvement Plan are not recognized).

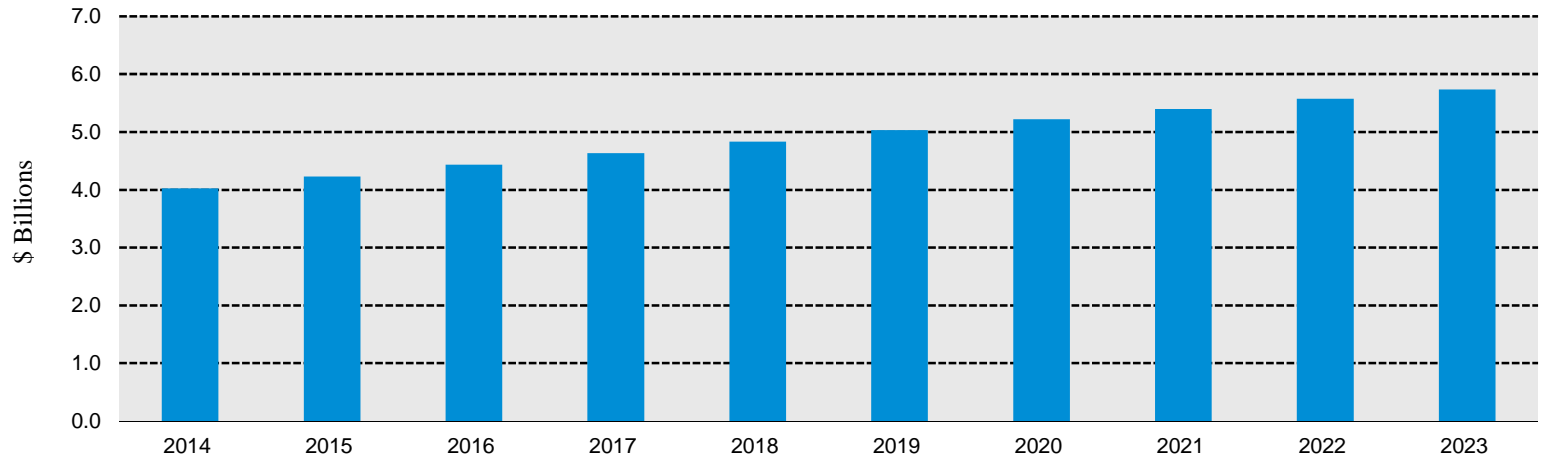
Based on this valuation, the projected investment earnings and future contribution income will exceed projected benefit payments and administrative expenses for at least 10 years, assuming experience is consistent with the current assumptions. As a result, the market value of assets is projected to increase gradually.

*This chart shows the projected market value of assets for the next 10 years.*

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**CHART 21**  
**Projected Market Value of Assets for Years Ending December 31**

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**SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**H. DISCLOSURE REQUIREMENTS**

**Present Value of Accumulated Plan Benefits (PVAB)**

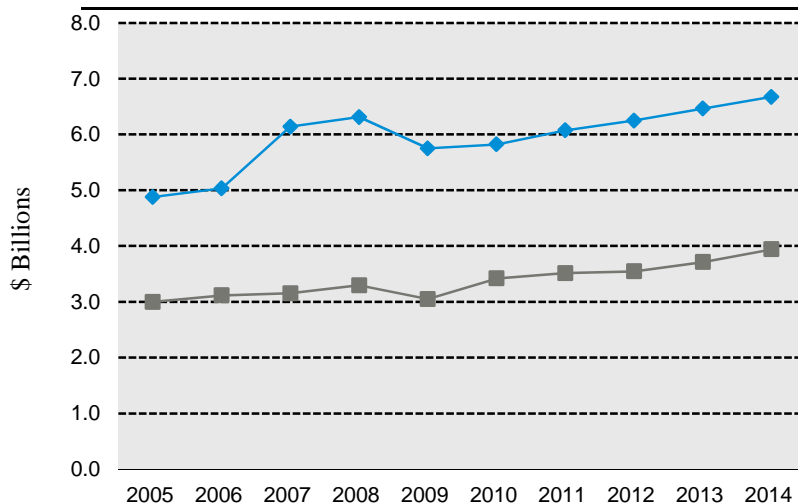
Financial reporting, in accordance with the Financial Accounting Standards Board Accounting Standards Codification (FASB ASC) 960, requires determination of the present value of accumulated plan benefits. It is the single-sum value of the benefits, vested or not, earned by participants as of the valuation date. These present values are determined based on the plan of benefits reflected for Funding Standard Account purposes and are based upon the actuarial assumptions used to determine the ERISA funding costs of the ongoing Plan. These are not appropriate liability measurements for other purposes such as if the Plan were to terminate.

The funded percentages based on the actuarial value of assets are 59.1% and 57.4% for the 2014 and 2013 valuations, respectively. If the market value of assets were used to determine the funded percentage, the 59.1% figure for 2014 would become 57.2%. The PVAB funded percentage for 2014 is not the same as that used to determine the annual certification required under PPA'06. The 2013 values shown in Charts 22 and 23 reflect current participant and financial information, whereas the annual certification was based on prior participant data and estimated financial results. Chart 22 below compares the present value of accumulated plan benefits with the actuarial value of assets over the past ten years. Chart 23 shows the relationship of these measures as a percentage.

*A historical comparison over the past ten years is shown in these charts.*

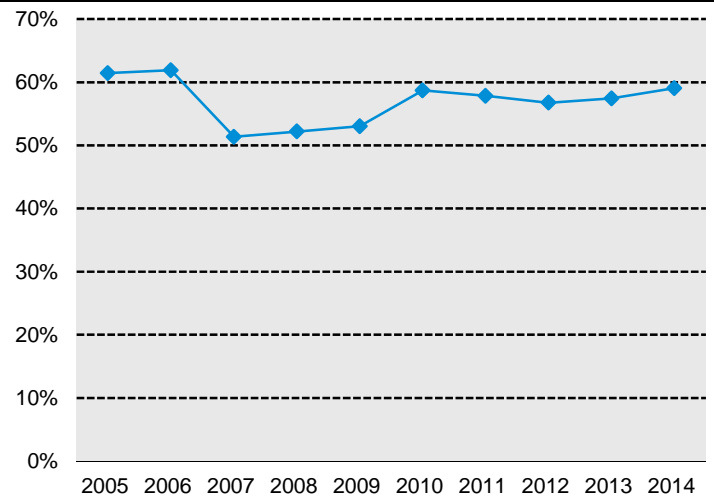
**CHART 22**

**Present Value of Accumulated Plan Benefits vs. Actuarial Value of Assets as of January 1, 2005 - 2014**



**CHART 23**

**Actuarial Value of Assets as a Percentage of Present Value of Accumulated Plan Benefits as of January 1, 2005 - 2014**



## SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund

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For a detailed breakdown of this information and reconciliation from last year to this year, see Section 4, Exhibit VI.

### **Annual Funding Notice**

PPA'06 requires the annual funding notice to be provided to participants, employers, unions and government agencies. The notice must be sent by 120 days after the end of the plan year. The actuary's "best estimate" assumptions are the basis for the measurement of the funding notice percentage.

The value of plan benefits earned to date as of January 1, 2014 is \$6,671,514,903 using the long-term funding interest rate of 7.50%. As the actuarial value of assets is \$3,940,831,853, the Plan's funded percentage is 59.1%, compared to 57.4% in the prior year. The funded percentage is one measure of a plan's funded status. It is not indicative of how well funded a plan may be in the future, especially in the event of plan termination.

The actuarial information to be provided in the annual funding notice is shown in Section 3, Exhibit F.

### **Current Liability**

ERISA also requires the disclosure by the actuary of the funding percentage based on "current liability" assumptions and the market value of assets, if it is less than 70%. As shown in Section 4, Exhibit V, the Plan's current liability as of January 1, 2014 is \$11,291,679,667 using an interest rate of 3.64%. As the market value of assets is \$3,818,123,174, this funded current liability percentage is 33.8%. This will be disclosed on the 2014 Schedule MB of IRS Form 5500.

## **SECTION 2: Actuarial Valuation Results as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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### **I. WITHDRAWAL LIABILITY**

The actuarial present value of vested Plan benefits for withdrawal liability purposes is not the same figure as determined for FASB ASC 960 purposes because the two calculations involve different actuarial assumptions. A separate detailed report on withdrawal liability is available.

**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**EXHIBIT A**

**Table of Plan Coverage**

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
<b>Participants in Fund Office tabulation</b>	56,104	57,372	-2.2%
<b>Less: Participants with less than one year of vesting service</b>	1,822	1,932	N/A
<b>Active participants in valuation:</b>			
Number			
First Alternative Schedule without 55/30	20,796	21,832	-4.7%
First Alternative Schedule with 55/30	20,225	20,676	-2.2%
Default Schedule	12,911	12,813	0.8%
No contribution increases but previously covered under an Alternative Schedule	324	90	260.0%
Second Alternative Schedule without 60/30	26	29	-10.3%
Second Alternative Schedule with 60/30	<u>0</u>	<u>0</u>	N/A
Total	54,282	55,440	-2.1%
Average age	42.8	42.7	N/A
Average pension credits	14.2	14.1	N/A
Average contribution rate as of valuation date	\$4.35	\$4.12	5.6%
Number with unknown age	280	206	35.9%
Total active vested participants	43,851	44,814	-2.1%
<b>Inactive participants with rights to a pension:</b>			
Number	34,246	33,644	1.8%
Average age	50.4	50.2	N/A
Number with unknown age	36	42	-14.3%
Average monthly benefit	\$452	\$447	1.1%
<b>Beneficiaries with rights to deferred payments</b>	578	517	11.8%

**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**EXHIBIT A (continued)**  
**Table of Plan Coverage**

Category	Year Ended December 31		Change From Prior Year
	2013	2012	
<b>Pensioners:</b>			
Number in pay status	37,648	37,165	1.3%
Average age	71.7	71.5	N/A
Average monthly benefit*	\$877	\$868	1.0%
Number in suspended status	89	35	154.3%
<b>Beneficiaries in pay status</b>	<b>9,096</b>	<b>8,774</b>	<b>3.7%</b>

*\*Includes one-twelfth of annual COLA payments*

**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT B**

**Participant Population: 2004 – 2013**

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<b>Year Ended December 31</b>	<b>Active Participants</b>	<b>Inactive Vested Participants (Including Deferred Beneficiaries)</b>	<b>Pensioners and Beneficiaries</b>	<b>Ratio of Non-Actives to Actives</b>
2004	68,286	22,275	40,361	0.92
2005	67,130	23,452	41,372	0.97
2006	68,046	24,020	42,077	0.97
2007	69,408	24,436	43,166	0.97
2008	70,448	25,517	43,794	0.98
2009	62,321	30,569	44,444	1.20
2010	55,940	33,749	45,281	1.41
2011	55,131	34,122	46,049	1.45
2012	55,440	34,161	45,974	1.45
2013	54,282	34,824	46,833	1.50

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**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**EXHIBIT C**

**Comparison of Active Participants by Local**

Local	As of December 31, 2013					As of December 31, 2012				
	Number of Members	Average Age	Average Service	Average Hours	Average Rate as of 12/31*	Number of Members	Average Age	Average Service	Average Hours	Average Rate as of 12/31*
001	374	43.96	16.41	1,594.20	\$6.59	419	44.12	16.21	1,679.00	\$6.19
002	1,157	42.42	14.88	1,628.89	9.56	1,191	42.01	14.51	1,639.41	8.92
003	369	42.47	13.55	1,828.60	4.91	340	42.74	14.32	1,753.11	4.61
004	193	42.12	15.35	1,731.23	0.45	188	42.19	15.37	1,685.58	0.40
005	519	42.18	10.22	1,770.39	3.75	594	41.90	9.89	1,702.86	3.45
007	996	41.19	13.43	1,688.52	1.44	975	41.22	13.51	1,673.27	1.37
009	728	42.44	12.76	1,703.41	0.50	693	42.18	12.79	1,669.07	0.51
010	2,416	42.53	14.55	1,659.76	3.84	2,342	42.56	14.64	1,637.79	3.68
012	975	41.71	14.45	1,630.87	7.39	1,005	41.90	14.43	1,647.37	7.44
015	523	44.19	9.87	1,773.85	2.49	582	44.71	9.45	1,906.13	2.43
016	1,342	41.55	11.80	1,703.89	1.74	1,323	41.87	12.00	1,689.52	1.65
017	1,290	42.75	15.02	1,679.53	9.35	1,196	42.88	15.33	1,566.39	8.78
018	2,347	43.22	16.17	1,737.24	8.06	2,316	42.86	15.96	1,698.33	7.49
019	246	45.21	15.01	1,808.57	3.60	267	45.04	14.23	1,807.60	3.33
020	2,196	42.79	15.08	1,688.46	4.79	2,213	42.54	14.98	1,695.60	4.55
023	209	43.65	13.95	1,544.48	1.69	232	43.96	14.13	1,637.75	1.70
024	1,244	42.90	15.24	1,744.09	3.65	1,310	42.91	15.08	1,703.10	3.40
025	487	45.90	17.69	1,619.71	9.93	469	45.69	18.01	1,551.56	9.54
026	129	41.18	13.64	1,480.33	2.60	128	41.06	13.14	1,493.41	2.38
027	401	44.91	16.59	1,410.38	9.55	507	44.61	16.20	1,428.78	8.99
028	2,336	43.20	14.37	1,601.71	11.65	2,307	43.36	14.56	1,602.63	11.10
029	160	38.50	13.23	1,775.88	4.36	155	38.11	12.74	1,798.79	4.09
032	296	44.25	13.20	1,569.37	3.55	330	44.39	13.50	1,824.39	3.47

**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**EXHIBIT C (continued)**

**Comparison of Active Participants by Local**

Local	As of December 31, 2013					As of December 31, 2012				
	Number of Members	Average Age	Average Service	Average Hours	Average Rate as of 12/31*	Number of Members	Average Age	Average Service	Average Hours	Average Rate as of 12/31*
033	2,192	42.30	13.94	1,625.69	\$5.34	2,321	42.07	13.59	1,678.67	\$5.09
036	1,699	44.24	16.17	1,542.64	2.33	1,763	43.82	15.58	1,534.25	2.28
038	493	43.24	15.43	1,560.00	9.43	462	43.31	15.94	1,525.53	8.73
040	325	44.45	15.77	1,526.24	1.43	341	43.83	15.02	1,469.96	0.83
041**	-	-	-	-	-	6	44.07	6.04	1,550.33	1.32
044	190	43.60	14.51	1,392.90	0.75	251	44.60	16.24	1,400.42	0.75
045	365	40.25	14.16	1,707.46	5.82	354	39.68	13.80	1,713.68	5.35
046	358	40.81	13.99	1,635.69	2.50	379	40.34	13.55	1,650.57	2.31
048	213	43.03	16.51	1,719.52	6.37	217	43.50	16.22	1,817.07	5.98
049	379	43.23	14.09	1,678.06	4.75	431	43.00	13.75	1,642.54	4.80
054	665	42.49	13.75	1,851.26	5.02	645	42.07	13.91	1,779.71	4.68
055	894	42.22	12.86	1,726.56	1.44	880	42.00	12.76	1,612.10	1.45
058	133	42.67	11.28	1,365.91	6.30	157	41.80	9.89	1,487.56	5.84
063	287	44.20	15.31	1,595.77	7.09	339	43.16	13.94	1,638.36	6.64
066	1,673	43.08	14.27	1,603.41	3.57	1,789	42.55	13.53	1,607.30	3.61
067	806	41.24	12.57	1,748.14	6.17	775	41.17	12.91	1,786.06	5.87
068	486	42.67	11.36	1,754.76	4.80	479	42.74	10.97	1,793.59	3.69
071	291	41.95	14.29	1,615.66	5.77	364	42.52	14.05	1,734.79	5.06
073	1,854	45.98	17.32	1,708.09	4.15	1,857	45.59	16.99	1,677.26	3.89
080	67	39.81	8.24	1,351.96	4.86	74	40.28	8.17	1,309.41	5.05
083	321	43.45	13.70	1,572.31	8.95	367	43.11	12.86	1,762.52	8.33
085	748	41.03	13.47	1,707.37	0.98	708	41.72	13.95	1,691.25	0.92
088	460	42.52	14.38	1,520.03	2.35	417	42.57	14.43	1,508.62	2.18



**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**EXHIBIT C (continued)**

**Comparison of Active Participants by Local**

Local	As of December 31, 2013					As of December 31, 2012				
	Number of Members	Average Age	Average Service	Average Hours	Average Rate as of 12/31*	Number of Members	Average Age	Average Service	Average Hours	Average Rate as of 12/31*
091	607	39.99	13.65	1,627.45	\$4.28	604	39.91	13.53	1,690.47	\$4.00
100	503	42.53	13.48	1,534.47	5.77	596	42.71	12.95	1,618.92	5.51
103	335	43.38	14.03	1,603.26	1.26	355	42.90	13.51	1,636.73	1.24
104	4,151	42.20	13.40	1,570.48	1.81	4,017	42.42	13.48	1,574.84	1.83
105	2,885	40.89	12.20	1,626.11	2.66	2,928	40.99	12.32	1,620.97	2.53
110	533	44.58	15.21	1,686.54	7.49	552	44.46	15.31	1,658.21	6.94
112	310	41.37	11.63	1,740.29	2.06	312	40.82	10.89	1,709.30	1.98
124	359	41.72	13.47	1,668.92	1.93	423	41.65	12.93	1,652.44	1.75
137**	347	44.19	14.24	1,567.64	8.51	337	44.10	14.23	1,707.98	8.24
170	760	45.88	12.63	2,072.21	1.31	740	45.75	12.52	2,116.35	1.24
177	470	41.36	11.26	1,656.00	0.81	530	41.54	11.39	1,760.36	0.77
206	448	40.81	11.02	1,583.59	4.03	468	40.96	10.97	1,591.07	3.76
214	650	41.88	13.57	1,794.61	2.61	656	41.92	13.64	1,810.09	2.43
218	324	43.56	15.88	1,581.11	2.94	340	43.47	15.76	1,588.08	3.18
219	276	42.63	16.57	1,696.33	5.58	280	42.54	16.69	1,696.30	5.28
237	117	53.94	23.22	692.40	2.76	167	54.69	23.76	1,969.25	2.76
256	35	49.31	9.00	1,989.20	1.00	34	48.92	8.57	1,890.24	0.90
263	290	40.10	13.20	1,722.33	5.07	287	39.79	12.87	1,675.64	4.94
265	1,090	43.84	16.88	1,551.66	0.90	1,103	43.44	16.61	1,479.85	0.89
268	366	43.92	16.73	1,564.42	4.17	394	43.04	15.51	1,594.52	3.89
270	162	42.13	12.78	1,750.36	5.01	151	42.05	12.94	1,816.74	4.72
273	151	42.73	13.89	1,473.75	2.93	173	42.05	13.69	1,377.25	2.76
292	439	44.69	14.94	1,878.10	1.17	435	44.56	14.68	1,761.47	1.15

**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**EXHIBIT C (continued)**

**Comparison of Active Participants by Local**

Local	As of December 31, 2013					As of December 31, 2012				
	Number of Members	Average Age	Average Service	Average Hours	Average Rate as of 12/31*	Number of Members	Average Age	Average Service	Average Hours	Average Rate as of 12/31*
312	846	40.72	13.45	1,763.84	\$0.23	912	39.95	12.60	1,788.23	\$0.23
359	447	42.47	13.40	1,567.29	2.03	545	42.25	12.42	1,737.11	1.88
399	342	40.53	7.02	1,717.37	6.13	360	40.17	6.31	1,793.44	5.63
435	164	42.11	14.74	1,649.62	5.36	180	42.36	13.79	1,663.29	5.00
441	164	44.32	15.83	1,763.93	4.82	199	43.24	14.86	1,721.44	4.41
450	129	49.07	15.35	2,329.87	2.14	131	48.37	15.16	2,311.83	2.10
464	138	53.46	23.75	1,841.75	0.89	148	52.41	22.33	1,816.25	0.89
480	433	47.02	18.03	2,173.45	2.24	438	47.31	18.18	2,092.16	2.09
555	152	46.46	11.46	1,896.54	0.79	156	46.83	11.11	1,929.61	0.79
565	1	58.67	34.75	1,960.00	5.41	1	57.67	33.75	1,960.00	5.06
997	26	51.25	11.27	1,817.62	5.41	30	50.55	9.81	1,824.70	5.06
Total	<u>54,282</u>	<u>42.80</u>	<u>14.21</u>	<u>1,663.13</u>	<u>\$4.35*</u>	<u>55,440</u>	<u>42.72</u>	<u>14.06</u>	<u>1,664.94</u>	<u>\$4.12*</u>

\* Does not reflect contribution rate increases scheduled to occur during the year

\*\* Local 41 merged into Local 137 during 2013.

**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**EXHIBIT D**

**Summary Statement of Income and Expenses on an Actuarial Basis**

	Year Ended December 31, 2013	Year Ended December 31, 2012
<b>Contribution income:</b>		
Employer contributions and withdrawal liability payments	\$406,169,752	\$351,252,556
Liquidated damages	249,536	32,678
Adjustment for withdrawal liability receivable	-17,040,809	16,058,712
Less administrative expenses	<u>-13,026,743</u>	<u>-13,323,587</u>
Net contribution income	\$376,351,736	\$354,020,359
<b>Settlement and other income</b>	356,755	376,627
<b>Investment income:</b>		
Expected net investment income	\$275,953,963	\$263,022,589
Adjustment toward market	<u>18,033,864</u>	<u>-19,395,425</u>
Net investment income	<u>293,987,827</u>	<u>243,627,164</u>
<b>Total income available for benefits</b>	\$670,696,318	\$598,024,150
<b>Less benefit payments</b>	-\$441,792,780	-\$431,730,401
<b>Change in reserve for future benefits</b>	<u>\$228,903,538</u>	<u>\$166,293,749</u>

**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**EXHIBIT E**

**Financial Information Table**

	<b>As of December 31, 2013</b>	<b>As of December 31, 2012</b>
<b>Cash equivalents</b>	\$71,092,366	\$70,462,214
<b>Accounts receivable:</b>		
Employer contributions	\$42,244,754	\$42,582,360
Payment for security sold	20,853,563	50,663,525
Accrued interest and dividend	5,770,699	5,196,306
Miscellaneous	<u>643,085</u>	<u>416,642</u>
Total accounts receivable	69,512,101	98,858,833
<b>Investments</b>		
Corporate stocks	\$1,650,875,783	\$1,336,641,667
Debt securities	425,430,637	496,181,029
Securities loaned to third parties	585,758,767	400,915,144
Real estate	21,600,000	20,500,000
Hedge funds	313,156,038	248,434,260
Common collective trusts	557,265,081	441,000,685
Limited partnerships and other securities	<u>192,678,572</u>	<u>248,799,961</u>
Total investments at market value	<u>3,746,764,878</u>	<u>3,192,472,746</u>
<b>Total assets</b>	<b>\$3,887,369,345</b>	<b>\$3,361,793,793</b>
<b>Less accounts payable:</b>		
Settlement for securities purchased	-\$54,781,453	-\$122,666,575
Notes payable	-7,403,951	-7,557,007
Miscellaneous	<u>-7,060,767</u>	<u>-4,986,687</u>
Total accounts payable	-69,246,171	-135,210,269
<b>Net assets at market value *</b>	<b>\$3,818,123,174</b>	<b>\$3,226,583,524</b>
<b>Net assets at actuarial value *</b>	<b>\$3,940,831,853</b>	<b>\$3,711,928,315</b>

*\*Excludes withdrawal liability payments receivable of \$35,711,069 as of December 31, 2013 and \$18,670,260 as of December 31, 2012*

**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**EXHIBIT F**

**Annual Funding Notice for Plan Year Beginning January 1, 2014 and Ending December 31, 2014**

	<b>2014 Plan Year</b>	<b>2013 Plan Year</b>	<b>2012 Plan Year</b>
Actuarial valuation date	January 1	January 1	January 1
Funded percentage	59.1%	57.4%	56.7%
Value of assets*	\$3,940,831,853	\$3,711,928,315	\$3,545,634,566
Value of liabilities	6,671,514,903	6,463,106,428	6,248,255,880

Fair value of assets as of December 31, 2014	Not available
Fair value of assets as of December 31, 2013*	\$3,818,123,174
Fair value of assets as of December 31, 2012*	3,226,583,524

*\*Excludes withdrawal liability payments receivable*

**Critical or Endangered Status**

The Plan passed the critical status emergence test under IRC Section 432(e)(4)(B) and is in endangered (Yellow Zone) status. The certification was based upon the interpretation that a plan which was in critical status and not projected to have a projected funding deficiency within ten years, taking into account amortization extensions, passes the emergence test under IRS Section 432(e)(4)(B) and is no longer in critical status (Red Zone), even if the plan is described by one or more of the subparagraphs under IRC Section 432(b)(2). The projected funded percentage was 59.1%. In an effort to improve the Plan's funding situation, the Trustees adopted a Funding Improvement Plan.

**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**EXHIBIT G**

**Minimum Funding Standard**

**Funding Standard Account**

ERISA imposes a minimum funding standard that requires the Plan to maintain a Funding Standard Account.

Contributions meet the legal requirement on a cumulative basis if that account shows no deficiency. The accumulation of the actual contributions in excess of the minimum funding standard under ERISA is called the credit balance. If actual contributions fall short of the minimum funding standard on a cumulative basis, a funding deficiency has occurred.

The Funding Standard Account is charged with normal cost and the amortization of increases in the unfunded actuarial accrued liability due to 1) plan amendments, 2) experience losses, 3) changes in actuarial assumptions and funding methods. The account is credited with employer contributions, withdrawal liability payments, and the amortization of decreases in the unfunded actuarial accrued liability due to 1) plan amendments, 2) experience gains,

and 3) changes in actuarial assumptions and funding methods.

Increases or decreases in the actuarial accrued liability due to assumption changes and plan amendments are amortized over 15 years and short-term benefits, such as 13th checks, are amortized over the scheduled payout period. The Preservation of Access to Care for Medicare Beneficiaries and Pension Relief Act of 2010 (PRA 2010) allowed eligible plans to amortize certain losses over periods up to 29 years.

Beginning in 2009, the Funding Standard Account reflects the Trustees' election under PRA 2010 to extend the amortization of the 2008 investment loss, smooth those losses over 10 years in the actuarial value of assets, and increase the upper limit on the actuarial value of assets.

**Funding Standard Account for the Year Ended December 31, 2013 (Recognizing Five-Year Amortization Extension)**

Charges			Credits		
1	Prior year funding deficiency	\$0	6	Prior year credit balance	\$140,635,133
2	Normal cost, including administrative expenses	145,868,887	7	Employer contributions	389,378,479
3	Total amortization charges	538,303,279	8	Total amortization credits	279,300,291
4	Interest to end of the year	<u>51,312,912</u>	9	Interest to end of the year	46,096,851
5	Total charges	\$735,485,078	10	Full-funding limitation credit	<u>0</u>
			11	Total credits	\$855,410,754
			12	Credit balance: (11) – (5)	<u>\$119,925,676</u>

**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

PPA'06 requires the Internal Revenue Service to permit multiemployer plans facing a funding deficiency within ten years to extend the schedule for paying off their liabilities by five years.

The Trustees elected to utilize this provision effective January 1, 2009.

The chart below shows the development of the Funding Standard Account without the five-year amortization extension.

**Funding Standard Account for the Year Ended December 31, 2013 (Disregarding Five-Year Amortization Extension)**

Charges			Credits		
1	Prior year funding deficiency	\$435,813,945	6	Prior year credit balance	\$0
2	Normal cost, including administrative expenses	145,868,887	7	Employer contributions	389,378,479
3	Total amortization charges	567,055,996	8	Total amortization credits	279,300,291
4	Interest to end of the year	<u>86,155,412</u>	9	Interest to end of the year	35,549,216
5	Total charges	\$1,234,894,240	10	Full-funding limitation credit	<u>0</u>
			11	Total credits	\$704,227,986
			12	Credit balance/(funding deficiency): (11) – (5)	<u>-\$530,666,254</u>

**Reorganization**

Under the reorganization provisions of the IRC, the Minimum Contribution Requirement (MCR) is calculated as the amount that amortizes the unfunded liability for current pensioners over ten years and the unfunded vested liability for non-pensioners over 25 years. The MCR is applicable only if this amount is larger than the Funding Standard Account requirement before the application of the credit balance.

For the year beginning January 1, 2014, the MCR does not exceed the Funding Standard Account requirement before the application of the credit balance, and is therefore not applicable for the current year. If the MCR is applicable, the Plan is said to be “in reorganization.” When a plan is in reorganization, contribution requirements are greater than the normal ERISA funding requirements, a plan must give notice to its participating employers and unions that it is in reorganization, cut-backs in recent benefit increases are permitted and any new benefit increases must be adequately funded. We are prepared to discuss the implications of reorganization status in more detail.



**SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

**EXHIBIT H**

**Maximum Deductible Contribution**

Employers that contribute to defined benefit pension plans are allowed a current deduction for payments to such plans. There are various measures of a plan's funded level that are considered in the development of the maximum deductible contribution amount.

One of the limits is the excess of 140% of "current liability" over assets. "Current liability" is one measure of the actuarial present value of all benefits earned by the participants as of the valuation date. This is the limit that applies to your Plan as shown below.

Contributions received by the Plan in excess of the maximum deductible amount are not prohibited; only the deductibility of these contributions is subject to challenge and may have to be deferred to a later year. In addition, if contributions are not fully deductible, an excise tax in an amount equal to 10% of the non-deductible contributions may be imposed. However, the plan sponsor may elect to exempt the non-deductible amount up to the ERISA full-funding limitation from the excise tax.

You should review with Fund Counsel the interpretation and applicability of all laws and regulations concerning any issues as to the deductibility of contribution amounts.

*This chart presents the calculation of the maximum deductible contribution for the January 1, 2014 - December 31, 2014 year.*

**Maximum Deductible Contribution**

1.	Normal cost, including administrative expenses	\$96,701,186
2.	Amortization of unfunded actuarial accrued liability	370,067,063
3.	Preliminary maximum deductible contribution: (1) + (2), with interest to the end of the plan year	501,775,868
4.	Full-funding limitation (FFL)	6,547,206,762
5.	Preliminary maximum deductible contribution, adjusted for FFL: lesser of (3) and (4)	501,775,868
6.	Current liability, projected to the end of the plan year	11,440,504,537
7.	Actuarial value of assets, projected to the end of the plan year	3,749,247,321
8.	Excess of 140% of current liability over projected assets at end of plan year: [140% of (6)] - (7), not less than zero	12,267,459,031
9.	End of year minimum funding standard	252,678,599
10.	Maximum deductible contribution: greatest of (5), (8), and (9)	<u>\$12,267,459,031</u>

## SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund

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### EXHIBIT I

#### Pension Protection Act of 2006 (PPA '06)

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The “zone” rules created by PPA'06 are scheduled to expire (“sunset”) for plan years beginning after December 31, 2014. However, if a pension plan is operating under a Funding Improvement Plan or a Rehabilitation Plan for the last plan year beginning in 2014, that Funding Improvement Plan or Rehabilitation Plan will remain in effect, as will all provisions of the Internal Revenue Code or ERISA regulating the operation of such Funding Improvement Plan or Rehabilitation Plan.

We will keep you informed of regulatory guidance and legislative changes as they develop.

#### PPA'06 Zone Status

Based on projections of the credit balance in the Funding Standard Account, the funded percentage, and cash flow sufficiency tests, plans are categorized in one of three “zones,” critical status, endangered status, or neither.

A plan is classified as being in critical status (the *Red Zone*) if:

- The PPA'06 funded percentage is less than 65%, and either there is a projected Funding Standard Account deficiency within five years or the plan is projected to be unable to pay benefits within seven years, or
- There is a projected Funding Standard Account deficiency within four years, or

- There is an inability to pay benefits within five years, or
- The present value of vested benefits for inactive participants exceeds that for actives, contributions are less than the value of the current year's benefit accruals plus interest on existing unfunded accrued benefit liabilities, and there is a projected Funding Standard Account deficiency within five years.

The corrective action for a critical plan is the adoption of a formal Rehabilitation Plan, designed to allow the plan to emerge from critical status by the end of the rehabilitation period. If the Trustees determine that such emergence is not reasonable, the rehabilitation plan is designed to emerge as of a later date or to forestall insolvency.

*Red Zone* plans have tools, such as the ability to reduce or eliminate early retirement subsidies, to remedy the situation. Plans in the *Red Zone* may not pay lump sums. They may not reduce benefits of participants who retired before being notified of the plan's critical status (other than rolling back recent benefit increases) or alter core retirement benefits payable at normal retirement age.

### SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund

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A plan is classified as being in endangered status (the *Yellow Zone*) if:

- The PPA '06 funded percentage is less than 80%, or
- There is a projected Funding Standard Account deficiency within seven years, and
- The plan is not in critical status (*Red Zone*).

The corrective actions for an endangered plan are based on the adoption of a formal Funding Improvement Plan, designed to improve gradually the current funded percentage, to forestall a funding deficiency and to keep the plan out of critical status.

A plan that has both of the endangered conditions present is classified as seriously endangered. Trustees of those plans must take interim measures to delay the projected funding deficiency by one year and improve the plan's funded percentage.

A plan is classified as being in the *Green Zone* if it is neither in critical status (the *Red Zone*) nor in endangered status (the *Yellow Zone*).

#### **Funded Percentage**

For purposes of PPA '06, the funded percentage is determined using the actuarial value of assets and the "Unit Credit accrued liability." This liability is generally equivalent to the present value of benefits earned to date, as discussed in Section 2, Subsection H, and is based on the actuary's best estimate assumptions.

### SECTION 3: Supplementary Information as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund

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#### EXHIBIT J

#### Section 415 Limitations

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Section 415 of the Internal Revenue Code specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan. If an individual is covered solely by multiemployer plans, the plans do not have to be combined for any of the limits. If the individual is covered by a single-employer plan, all plans maintained by the same employer are combined in applying these tests. Multiemployer plan benefits do not need to be combined with single-employer plan benefits in testing against the pay-based limit.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification; the plan could lose its tax exemption, employers could lose their deductions and active participants could be taxed on their vested benefits.

In particular, Section 415(b) of the IRC as amended by the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) limits the maximum annual benefit payable to a dollar limit of \$160,000 indexed for inflation. The dollar limit indexed for inflation is \$205,000 for 2013 and \$210,000 for 2014. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances for such things as age at retirement and form of benefits chosen.

While the actual determination of the exact limits applicable to each participant's benefit can only be done when the individual retires and applies for benefits, the overall impact of the Section 415 dollar limits has been reflected in this valuation for plan funding purposes, based on our understanding of the requirements of IRC Sections 404, 415, and 431 and the data available to us.

Fund Counsel's review and interpretation of the law and regulations must be sought in this area as well.

October 24, 2014

**CERTIFICATE OF ACTUARIAL VALUATION**

This is to certify that Segal Consulting, a Member of The Segal Group, Inc. (“Segal”) has prepared an actuarial valuation of the Sheet Metal Workers' National Pension Fund as of January 1, 2014 in accordance with generally accepted actuarial principles and practices. It has been prepared at the request of the Board of Trustees to assist in administering the Fund and meeting filing requirements of federal government agencies. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Trustees and may only be provided to other parties in its entirety.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

The valuation is based on the assumption that the Plan is qualified as a multiemployer plan for the year and on draft information supplied by the auditor with respect to contributions and assets and reliance on the Plan Administrator with respect to the participant data. Segal Consulting does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results. Adjustments for incomplete or apparently inconsistent data were made as described in the attached Exhibit VII.

I am a member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of my knowledge, the information supplied in this actuarial valuation is complete and accurate, except as noted in Exhibit I. Each prescribed assumption for the determination of Current Liability was applied in accordance with applicable law and regulations. In my opinion, each other assumption is reasonable (taking into account the experience of the plan and reasonable expectations) and such other assumptions, in combination, offer my best estimate of anticipated experience under the plan.



Daniel V. Ciner, MAAA  
Senior Vice President and Actuary  
Enrolled Actuary No. 14-05773

**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT I**

**Summary of Actuarial Valuation Results**

The valuation was made with respect to the following data supplied to us by the Plan Administrator:

1	Pensioners as of the valuation date (including 9,096 beneficiaries in pay status and 89 pensioners in suspended status)		46,833
2	Participants inactive during year ended December 31, 2013 with vested rights (including 578 beneficiaries with rights to deferred pensions and 36 participants with unknown age)		34,824
3	Participants active during the year ended December 31, 2013 (including 280 participants with unknown age)		54,282
	Fully vested	43,851	
	Not vested	10,431	
4	Total participants		135,939

The actuarial factors as of the valuation date are as follows:

1	Normal cost, including administrative expenses		\$96,701,186
2	Actuarial accrued liability		6,671,514,903
	Pensioners and beneficiaries	\$3,786,998,663	
	Inactive participants with vested rights	799,862,490	
	Active participants	2,084,653,750	
3	Actuarial value of assets (\$3,818,123,174* at market value as reported in a draft audit by Calibre CPA Group)		3,940,831,853*
4	Unfunded actuarial accrued liability		\$2,730,683,050

\*Excludes receivable withdrawal liability payments of \$35,711,069

**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT II**

**Information on Plan Status as of January 1, 2014**

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1 Plan status (as certified on January 15, 2014, for the 2014 zone certification)	<i>Endangered</i>
2 Actuarial value of assets for Funding Standard Account	\$3,940,831,853
3 Accrued liability under unit credit cost method	6,671,514,903
4 Funded percentage for monitoring plan's status	59.1%

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**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT III**

**Schedule of Active Participant Data  
(Schedule MB, line 8b)**

The participant data is for the year ended December 31, 2013.

Age	Pension Credits										
	Total	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
<b>Under 25</b>	2,517	277	2,050	190	--	--	--	--	--	--	--
<b>25 - 29</b>	5,099	173	2,391	2,467	68	--	--	--	--	--	--
<b>30 - 34</b>	6,891	126	1,809	3,094	1,771	91	--	--	--	--	--
<b>35 - 39</b>	7,380	72	1,148	2,114	2,475	1,530	41	--	--	--	--
<b>40 - 44</b>	7,724	35	762	1,364	2,033	2,248	1,214	68	--	--	--
<b>45 - 49</b>	8,183	40	505	992	1,482	1,689	1,984	1,430	61	--	--
<b>50 - 54</b>	8,589	20	440	762	1,065	1,243	1,478	2,118	1,348	115	--
<b>55 - 59</b>	5,272	11	217	412	568	622	649	965	1,098	690	40
<b>60 - 64</b>	1,981	5	93	169	222	223	213	243	279	303	231
<b>65 - 69</b>	336	1	17	35	36	52	26	33	38	24	74
<b>70 &amp; over</b>	30	1	3	4	2	8	2	2	1	1	6
<b>Unknown</b>	280	73	201	5	1	--	--	--	--	--	--
<b>Total</b>	54,282	834	9,636	11,608	9,723	7,706	5,607	4,859	2,825	1,133	351

*Note: Excludes 1,822 participants with less than one year of vesting service.*



**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT IV  
Funding Standard Account**

The table below presents the Funding Standard Account for the Plan Year ending December 31, 2014.

<b>Charges</b>		<b>Credits</b>			
1	Prior year funding deficiency	\$0	6	Prior year credit balance	\$119,925,676
2	Normal cost, including administrative expenses	96,701,186	7	Amortization credits	296,358,967
3	Amortization charges	554,633,316	8	Interest on (6) and (7)	31,221,348
4	Interest on (1), (2) and (3)	<u>48,850,088</u>	9	Full-funding limitation credit	<u>0</u>
5	Total charges	\$700,184,590	10	Total credits	\$447,505,991
Minimum contribution with interest required to avoid a funding deficiency: (5) – (10), not less than zero					\$252,678,599
<b>Full funding limitations (FFL) and credits:</b>					
1	ERISA FFL (accrued liability FFL)				\$3,300,269,985
2	RPA '94 override (90% current liability FFL)				6,547,206,762
3	FFL credit				0

**Scheduled MB, line 8e**

The difference between minimum required contribution for the year and the minimum that would have been required without extending the amortization bases is \$720,674,733.

**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT IV (continued)**

**Funding Standard Account**

**Schedule of Funding Standard Account Bases (Charges)  
(Schedule MB, line 9c)**

<b>Type of Base</b>	<b>Date Established</b>	<b>Amortization Amount</b>	<b>Years Remaining</b>	<b>Outstanding Balance</b>
Plan Amendment*	01/01/1989	\$14,770,976	10	\$108,993,360
Initial Base*	01/01/1989	39,990,461	4	143,986,683
Prior Local 137 Combined Bases*	01/01/1990	75,592	9	518,355
Prior Local 38 Combined Bases*	01/01/1990	447,018	2	862,848
Prior Local 12 Combined Bases*	01/01/1990	1,227,046	4	4,418,009
Plan Amendment*	01/01/1990	4,751,277	11	37,364,424
Prior Local 51 Combined Bases*	01/01/1991	41,541	7	236,530
Prior Local 49 Combined Bases*	01/01/1991	286,736	2	553,468
Prior Local 17 Combined Bases*	01/01/1991	411,698	7	2,344,143
Plan Amendment*	01/01/1991	4,891,545	12	40,675,268
Plan Amendment*	01/01/1992	24,338,561	13	212,604,107
Plan Amendment*	01/01/1993	5,201,026	14	47,463,736
Plan Amendment*	01/01/1994	6,086,650	15	57,757,162
Plan Amendment*	01/01/1995	1,519,236	16	14,929,714
Actuarial Loss*	01/01/1996	17,854	2	34,463
Plan Amendment*	01/01/1996	6,412,433	17	65,031,734
Change in Assumptions*	01/01/1996	9,939,332	17	100,799,806
Plan Amendment*	01/01/1997	8,866,051	18	92,508,015
Actuarial Loss*	01/01/1998	5,040,097	4	18,146,998
Plan Amendment*	01/01/1998	2,160,882	19	23,134,417
Prior Local 38 Combined Bases*	01/01/1999	538,165	6	2,715,518
Plan Amendment*	01/01/1999	555,299	20	6,085,561

**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT IV (continued)**

**Funding Standard Account**

**Schedule of Funding Standard Account Bases (Charges)  
(Schedule MB, line 9c)**

<b>Type of Base</b>	<b>Date Established</b>	<b>Amortization Amount</b>	<b>Years Remaining</b>	<b>Outstanding Balance</b>
Actuarial Loss*	01/01/1999	\$5,275,114	5	\$22,943,194
Change in Funding Method*	01/01/2000	1,315,629	1	1,315,629
Actuarial Loss*	01/01/2000	4,068,171	6	20,527,521
Plan Amendment*	01/01/2000	19,037,630	21	213,116,590
Plan Amendment*	01/01/2001	192,228	22	2,193,993
Actuarial Loss*	01/01/2001	5,338,829	7	30,398,475
Plan Amendment*	01/01/2002	10,255,333	23	119,138,161
Actuarial Loss*	01/01/2002	35,807,007	8	225,462,450
Plan Amendment*	01/01/2003	3,719,186	24	43,911,272
Actuarial Loss*	01/01/2003	60,459,486	9	414,589,045
Actuarial Loss*	01/01/2004	4,431,608	10	32,700,335
Plan Amendment*	01/01/2004	12,476,476	25	149,505,192
Actuarial Loss*	01/01/2005	7,680,390	11	60,399,205
Actuarial Loss*	01/01/2006	3,351,823	12	27,871,826
Plan Amendment*	01/01/2006	3,205,525	27	39,426,307
Actuarial Loss*	01/01/2007	4,600,188	13	40,183,920
Plan Amendment*	01/01/2007	3,652,210	28	45,438,530
Change in Asset Method*	01/01/2007	10,417,797	8	65,596,714
Change in Assumptions*	01/01/2007	75,824,731	28	943,364,366
Actuarial Loss*	01/01/2008	4,486,880	14	40,946,549
Actuarial Loss*	01/01/2009	2,228,556	15	21,147,108
Extended Recognition of 2008 Investment Loss*	01/01/2009	53,243,117	25	638,010,502

**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT IV (continued)**  
**Funding Standard Account**

**Schedule of Funding Standard Account Bases (Charges)**  
**(Schedule MB, line 9c)**

<b>Type of Base</b>	<b>Date Established</b>	<b>Amortization Amount</b>	<b>Years Remaining</b>	<b>Outstanding Balance</b>
Change in Assumptions	01/01/2011	\$15,855,237	12	\$131,843,017
Extended Recognition of 2008 Investment Loss	01/01/2011	25,516,211	24	301,261,973
Plan Amendment	01/01/2012	429,327	13	3,750,293
Extended Recognition of 2008 Investment Loss	01/01/2012	5,765,101	24	68,066,753
Actuarial Loss	01/01/2012	10,376,023	13	90,637,450
Plan Amendment	01/01/2013	486,781	14	4,442,286
Change in Assumptions	01/01/2013	4,648,382	14	42,420,391
Extended Recognition of 2008 Investment Loss	01/01/2013	6,588,832	24	77,792,297
Plan Amendment	01/01/2014	285,758	15	2,711,600
Extended Recognition of 2008 Investment Loss	01/01/2014	<u>16,044,274</u>	24	<u>189,429,760</u>
<b>Total</b>		\$554,633,316		\$5,091,707,023

*\*Denotes bases that were extended five years (not to exceed 30 years for the extended recognition of the 2008 investment loss) under IRC Section 431(d)(1)*

**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT IV (continued)**

**Funding Standard Account**

**Schedule of Funding Standard Account Bases (Credits)  
(Schedule MB, line 9h)**

<b>Type of Base</b>	<b>Date Established</b>	<b>Amortization Amount</b>	<b>Years Remaining</b>	<b>Outstanding Balance</b>
Change in Assumptions	01/01/1989	\$4,851,476	6	\$24,479,992
Prior Local 501 Combined Bases	01/01/1990	22,415	7	127,630
Change in Method	01/01/1991	40,285	5	175,214
Change in Assumptions	01/01/1992	11,419,594	8	71,904,628
Change in Method	01/01/1992	15,774,802	8	99,327,640
Plan Amendment	07/01/1994	13,461	16.5	134,442
Plan Amendment	01/01/1996	14,769,689	12	122,816,227
Plan Amendment	09/01/2003	21,285,335	19.67	231,514,855
Plan Amendment	01/01/2005	3,079,758	21	34,476,323
Change in Cost Method	01/01/2007	45,147,423	3	126,212,562
Plan Amendment	01/01/2008	2,607,010	9	17,877,059
Plan Amendment	03/01/2008	49,137,498	9.17	341,439,520
Plan Amendment	08/01/2008	27,770,774	9.58	198,961,128
Change in Asset Method (Funding Relief)	01/01/2009	18,467,501	25	221,295,457
Plan Amendment	01/01/2010	627,691	11	4,936,209
Actuarial Gain	01/01/2010	12,696,666	11	99,847,608
Extended Recognition of 2008 Investment Loss	01/01/2010	14,218,585	24	167,874,410
Plan Amendment	01/01/2011	1,357,810	12	11,290,765
Actuarial Gain	01/01/2011	30,219,651	12	251,289,213
Plan Amendment	01/01/2013	21,747	14	198,456
Actuarial Gain	01/01/2013	4,724,529	14	43,115,297

**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT IV (continued)**  
**Funding Standard Account**

**Schedule of Funding Standard Account Bases (Credits)**  
**(Schedule MB, line 9h)**

<b>Type of Base</b>	<b>Date Established</b>	<b>Amortization Amount</b>	<b>Years Remaining</b>	<b>Outstanding Balance</b>
Actuarial Gain	01/01/2014	<u>\$18,105,267</u>	15	<u>\$171,803,662</u>
Total		\$296,358,967		\$2,241,098,297

**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT IV (continued)**

**Funding Standard Account**

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**Equation of Balance**

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1	Net outstanding balance of bases	\$2,850,608,726
2	Credit balance	<u>119,925,676</u>
3	Unfunded actuarial accrued liability: (1) - (2)	\$2,730,683,050

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**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT V**

**Current Liability**

The table below presents the current liability for the Plan Year beginning January 1, 2014.

Item	Amount
1. Retired participants and beneficiaries receiving payments	\$5,327,356,375
2. Inactive vested participants	1,671,948,500
3. Active participants	
a. Non-vested benefits	\$756,818,555
b. Vested benefits	<u>3,535,556,237</u>
c. Total active	<u>4,292,374,792</u>
4. Total	<u>\$11,291,679,667</u>
Expected increase in current liability due to benefits accruing during the plan year	\$195,687,490
Expected release from current liability for the plan year	456,691,008
Expected plan disbursements for the plan year, including administrative expenses of \$12,400,000 (adjusted from beginning of year)	469,583,611
Current value of assets	3,818,123,174
Percentage funded for Schedule MB	33.81%

*Note: The actuarial assumptions used to calculate these values are shown in Exhibit VII.*



**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT VI**

**Actuarial Present Value of Accumulated Plan Benefits**

The actuarial present value of accumulated plan benefits calculated in accordance with FAS ASC 960 is shown below as of January 1, 2014 and as of January 1, 2013. In addition, the factors that affected the change between the two dates follow.

	<b>Benefit Information Date</b>	
	<b>January 1, 2014</b>	<b>January 1, 2013</b>
Actuarial present value of vested accumulated plan benefits:		
Participants currently receiving payments	\$3,786,998,663	\$3,675,548,505
Other vested benefits	<u>2,535,693,210</u>	<u>2,452,428,764</u>
Total vested benefits	\$6,322,691,873	\$6,127,977,269
Actuarial present value of non-vested accumulated plan benefits	<u>348,823,030</u>	<u>335,129,159</u>
Total actuarial present value of accumulated plan benefits	<u>\$6,671,514,903</u>	<u>\$6,463,106,428</u>
		<b>Change in Actuarial Present Value of Accumulated Plan Benefits</b>
<b>Factors</b>		
Plan amendments		\$2,711,600
Benefits accumulated, net experience gain or loss, changes in data		179,323,902
Benefits paid		-441,792,780
Interest		<u>468,165,753</u>
Total		\$208,408,475

*The amounts shown above have been calculated in accordance with Actuarial Standard of Practice No. 4 promulgated by the Actuarial Standards Board for calculating such values. The changes in plan provisions are described in Exhibit VIII.*

**SECTION 4: Certificate of Actuarial Valuation as of January 1, 2014 for the Sheet Metal Workers' National Pension Fund**

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**EXHIBIT VII**

**Statement of Actuarial Assumptions/Methods  
(Schedule MB, line 6)**

**Mortality Rates:**

Healthy: RP-2000 Combined Healthy Blue Collar Mortality Table projected from 2000 using Scale AA on a generational basis

Disabled: RP-2000 Combined Healthy Blue Collar Mortality Table for males, with participants under age 60 set forward to age 65 and participants over age 60 set forward 5 years

The RP-2000 Combined Healthy Blue Collar Mortality Table, projected with Scale AA to 2014, reasonably reflects the projected mortality experience of the Plan as of the valuation date. The mortality table was then adjusted to future years using generational projection under Scale AA to anticipate future mortality improvement.

**Termination Rates Before Retirement:**

Age	Rate (%)				
	Mortality <sup>1</sup>		Disability <sup>2</sup>	Withdrawal <sup>3</sup>	
	Male	Female		Construction	Production
20	0.03	0.02	0.04	13.00	24.00
25	0.04	0.02	0.04	10.17	20.00
30	0.07	0.03	0.04	7.00	14.84
35	0.11	0.05	0.05	5.42	11.57
40	0.14	0.09	0.07	4.72	9.57
45	0.18	0.14	0.14	3.53	8.43
50	0.24	0.20	0.30	3.00	7.40
55	0.42	0.28	0.64	3.00	7.40
60	0.83	0.49	1.30	0.00	7.40

<sup>1</sup>Healthy rates are projected on a generational basis using Scale AA. Rates above are sample rates in 2000.

<sup>2</sup>Participants are assumed to elect non-disability pensions upon eligibility.

<sup>3</sup>Withdrawal rates cut out upon eligibility for early retirement.

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**Retirement Rates - Active Participants**

Age	Rate (%)	
	Not Eligible for 55/30 (60/30) Pension	Eligible for 55/30 (60/30) Pension*
55	5	25
56-57	5	14
58-59	7	14
60-61	14	20
62	35	40
63-69	25	35
70	100	100

*\*Rate at first eligibility for 55/30 (60/30, if applicable) Pension is 25% or above rate at applicable age, if higher*

**Retirement Rates - Inactive Participants**

Age	Rate (%)**
55-61	5
62-63	10
64	30
65	35
66-79	20
80	100

*\*\*20% of inactive participants are assumed to retire with a Special Early, or 55/30 Pension (60/30 if applicable) if expected to be eligible based on reported Rehabilitation Plan Schedule/Funding Improvement Plan Option, and 80% are assumed to retire with a Normal or Standard Early Pension, depending upon age and service at retirement.*

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**Description of Weighted Average Retirement Age:**

Age 61, determined as follows: The weighted average retirement age for each participant is calculated as the sum of the product of each potential current or future retirement age times the probability of surviving from current age to that age and then retiring at that age, assuming no other decrements. The overall weighted retirement age is the average of the individual retirement ages based on all the active participants included in the January 1, 2014 actuarial valuation.

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**Future Benefit Accruals:**

For Construction employees: 1,650 hours per year  
For Production employees: 1,700 hours per year  
The Rehabilitation Plan Schedule/Funding Improvement Plan Option covering each participant, based on the census data provided for this valuation, is assumed to remain unchanged.

**Unknown Data for Participants:**

Same as those exhibited by participants with similar known characteristics. If not specified, participants are assumed to be male.

**Definition of Active Participants:**

Employees with at least 435 hours in the most recent plan year and who have accumulated at least one year of vesting service, excluding those who have retired as of the valuation date.

**Percent Married:**

80%

**Age and Sex of Spouse:**

Spouse of male participant is assumed to be three years younger than the participant and spouse of female participant is assumed to be three years older than the participant. If the spouse's sex is not provided, the spouse is assumed to be the opposite sex of the participant.

**Benefit Election:**

Married participants are assumed to elect the 50% joint and survivor annuity (with the "pop-up" feature if available) and non-married participants are assumed to elect the single life annuity.

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**Net Investment Return:**

7.50% - The net investment return assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes, as well as the Plan's target asset allocation.

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**Annual Administrative Expenses:** \$12,400,000, payable at the beginning of the year, for the year beginning January 1, 2014 (equivalent to \$12,892,603, payable monthly)

**Actuarial Value of Assets:** The market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the projected return on the market value, and is recognized (20% per year) over a five-year period. The unrecognized return for the year ended December 31, 2008 is recognized, 10% per year, over a ten-year period. The actuarial value is further adjusted, if necessary, to be within 20% of the market value.

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**Actuarial Cost Method:** Unit Credit Actuarial Cost Method. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis.

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**Elections under the Pension Relief Act of 2010:**

*Extended Amortization of  
Net Investment Losses  
(IRC Section 431(b)(8)(A))*

The market value investment loss for the Plan Year ended December 31, 2008 continues to be amortized over an extended period, based on the prospective method as defined in IRS Notice 2010-83.

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**Benefits Valued:** Unless otherwise indicated, includes all benefits summarized in Exhibit VIII.

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**Current Liability Assumptions:**

*Interest*

3.64%, within the permissible range prescribed under IRC Section 431(c)(6)(E)

*Mortality*

Mortality prescribed under IRS Regulations 1.431(c)(6)-1 and 1.430(h)(3)-1: RP-2000 tables projected forward to the valuation year plus seven years for annuitants and 15 years for nonannuitants

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**Justification for Change in Actuarial Assumptions (Schedule MB, line 11):**

Based on past experience and future expectation, the following actuarial assumption was changed as of January 1, 2014:

- Annual administrative expenses, previously \$12,000,000, payable at the beginning of the year
- 

**Estimated Rate of Investment Return:**

<i>On actuarial value of assets (Schedule MB, line 6g):</i>	8.0%, for the Plan Year ending December 31, 2013
<i>On current (market) value of assets (Schedule MB, line 6h):</i>	20.6%, for the Plan Year ending December 31, 2013

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**Funding Standard Account Contribution Timing (Schedule MB, line 3(a)):**

Unless otherwise noted, contributions are paid periodically throughout the year pursuant to collective bargaining agreements. The interest credited in the Funding Standard Account is therefore assumed to be equivalent to a July 1 contribution date.

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**EXHIBIT VIII**

**Summary of Plan Provisions  
(Schedule MB, line 6)**

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This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

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<b>Plan Year:</b>	January 1 through December 31
<b>Pension Credit Year:</b>	January 1 through December 31
<b>Plan Status:</b>	Ongoing plan

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**Normal Retirement:**

<i>Age Requirement</i>	65
<i>Service Requirement</i>	Five years of participation in the Plan
<i>Amount</i>	

**For service on and after January 1, 2014:**

Participant's *Benefit Rate* multiplied by the participant's *Contribution Hours* for the Plan Year multiplied by the *Applicable Percentage* for the Plan Year.

*Benefit Rate* is the portion of the participant's contribution rate that is subject to benefit accruals. For Participants working under a Collective Bargaining Agreement that qualifies for a 55/30 (or 60/30) Pension, the *Benefit Rate* is the total Contribution Rate less the 55/30 (or 60/30) Rate (30% of the Contribution Rate for periods after December 1, 2007).

*Contribution Hours* are the hours for which contributions are required to be made for the participant's work in Covered Employment.

*Applicable Percentage* is based on the average of the Plan's rate of market value investment return for each of the three most recent Plan Years reported in the Actuarial Valuation and Review as of January 1 of the immediately preceding Plan Year and is defined in the following table:

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<b>Applicable Percentage</b>	<b>Average of Market Value Investment Return Percentages for 3 Most Recent Plan Years</b>
1.25%	10.0% or higher
1.00%	8.5% or higher but less than 10.0%
0.75%	6.5% or higher but less than 8.5%
0.50%	Greater than 0% but less than 6.5%
0.00%	0% or less

The above formula applies unless otherwise stated in a Funding Improvement Plan Option.

The Applicable Percentage for the 2014 Plan Year is 0.75%.

**For service and on and after adoption of Rehabilitation Plan Schedule and before January 1, 2014:**

Default Schedule/Persons for Whom Contribution were Not Required to be Made (“Persons for Whom”): 1% of the amount determined by multiplying the participant’s Benefit Rate by the participant’s Contribution Hours for the Plan Year.

First Alternative Schedule: Same as accrual for service on and after December 1, 2007 and before adoption of Rehabilitation Plan Schedule.

Second Alternative Schedule: 1% of the amount determined by multiplying the participant’s Benefit Rate by the participant’s Contribution Hours for the Plan Year.

Formerly Alternative Schedule and Agreement Did Not Include Required Contribution Rate Increases - No Increase Consequences (“NIC”): 1% of the amount determined by multiplying the participant’s Benefit Rate by the participant’s Contribution Hours for the Plan Year.

**For service on and after December 1, 2007 and before adoption of Rehabilitation Plan Schedule:**

Employers that have not made required contribution rate increases: Same as accrual for service after August 31, 2003.

Employers that have made required contribution rate increases: 1.5% of the amount determined by multiplying the participant’s Benefit Rate by the participant’s Contribution Hours for the Plan Year (up to 1,200 hours), plus 0.7% of the amount determined by multiplying the participant’s



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Benefit Rate by the participant's Contribution Hours (over 1,200 hours). The 1.5% multiplier is applied to the first 1,200 hours at the highest Benefit Rate in effect during the Plan Year.

**For service after August 31, 2003 and before December 1, 2007:**

0.8571% of the amount determined by multiplying the participant's Benefit Rate by the participant's Contribution Hours (up to 1,400 hours), plus 0.3% of the amount determined by multiplying the participant's Benefit Rate by the participant's Contribution Hours (over 1,400 hours). For participants in 55/30 Locals, 80% of the total contribution rate is subject to benefit accruals. The 0.8571% multiplier is applied to the first 1,400 hours at the highest Benefit Rate in effect during the Plan Year.

Supplemental accruals:

Locals are required to increase their contribution rates subject to benefit accruals by 10% annually for eligibility. Participants of Locals that make the required increases earn a supplemental accrual that brings the total accrual to twice the normal rate in the year following the increase.

**For service after December 31, 1999 and before September 1, 2003:**

1.7142% of the amount determined by multiplying the participant's Benefit Rate by the participant's Contribution Hours (up to 1,400 hours), plus 0.6% of the amount determined by multiplying the participant's Benefit Rate by the participant's Contribution Hours (over 1,400 hours). The 1.7142% multiplier is applied to the first 1,400 hours at the highest Benefit Rate in effect during the Plan Year.

**For service before January 1, 2000:**

Benefit accrued according to the rules of the Plan in effect on December 31, 1999

**Past Service:**

\$10.00 for each year of Past Service Credit, if any, up to 10 years

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**Standard Early Retirement:**

<i>Age Requirement</i>	55
<i>Service Requirement</i>	Fulfill any one of the following: a. 10 years of Pension Credits, including at least five years of Future Service Credit, or b. 10 years of Vesting Service, or c. 15 years of Pension Credits, including at least 12 months of Future Service Credit
<i>Amount</i>	Normal Retirement benefit reduced as described below. <b>For benefits accrued on and after January 1, 2014:</b> Reductions based on the participant's Funding Improvement Plan Option, which depends upon the Schedule or Rehabilitation Plan provision which applied to the classification of employment when the Plan was in critical status.
<i>Default Option</i>	Actuarially from age 65 (Unsubsidized Early Retirement Pension)
<i>First Alternative Option</i>	6% per year from age 65
<i>Second Alternative Option</i>	Actuarially from age 65 (Unsubsidized Early Retirement Pension) <b>For benefits accrued before January 1, 2014:</b> Reductions based on the participant's Home Local Schedule (Rehabilitation Plan Schedule) when the Plan was in critical status.
<i>Default Schedule/ Persons for Whom</i>	Actuarially from age 65 (Unsubsidized Early Retirement Pension)
<i>First Alternative Schedule</i>	6% per year from age 65
<i>Second Alternative Schedule</i>	Actuarially from age 65 (Unsubsidized Early Retirement Pension)
<i>NIC</i>	Actuarially from age 65 (Unsubsidized Early Retirement Pension)

*Note: The above applies to participants with an effective date of pension on or after February 1, 2014. Previously, the provisions described for benefits accrued before January 1, 2014 were in effect. Participant may be eligible for different early retirement provisions for pre-2014 and post-2013 accrued benefits. Portions of the post-2013 accrued benefits may also be subject different early retirement provisions depending on the classification of employment of the participant's Contribution Hours.*

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**Special Early Retirement:**

<i>Age Requirement</i>	55
<i>Service Requirement</i>	The earliest date of the following: a. 10 years of Pension Credits, including at least five years of Future Service Credit, or b. 10 years of Vesting Service, or c. 15 years of Pension Credits, including at least 12 months of Future Service Credit
<i>Active Service Requirement</i>	Complete at least 3,500 hours of work in covered employment during the five consecutive calendar years immediately preceding retirement
<i>Amount</i>	Normal Retirement benefit reduced as described below. <b>For benefits accrued on and after January 1, 2014:</b> Reductions based on the participant's Funding Improvement Plan Option, which depends upon the Schedule or Rehabilitation Plan provision which applied to the classification of employment when the Plan was in critical status.
<i>Default Option</i>	Unavailable
<i>First Alternative Option</i>	6% per year from age 62
<i>Second Alternative Option</i>	Unavailable
	<b>For benefits accrued before January 1, 2014:</b> Reductions based on the participant's Home Local Schedule (Rehabilitation Plan Schedule) when the Plan was in critical status.
<i>Default Schedule/ Persons for Whom</i>	Unavailable
<i>First Alternative Schedule</i>	6% per year from age 62
<i>Second Alternative Schedule</i>	Unavailable
<i>NIC</i>	Unavailable

*Note: The above applies to participants with an effective date of pension on or after February 1, 2014. Previously, the provisions described for benefits accrued before January 1, 2014 were in effect. Participant may be eligible for different early retirement provisions for pre-2014 and post-2013 accrued benefits. Portions of the post-2013 accrued benefits may also be subject different early retirement provisions depending on the classification of employment of the participant's Contribution Hours.*

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**Age 62 Pension:**

<i>Age Requirement</i>	62
<i>Service Requirement</i>	Same as Special Early Retirement
<i>Amount</i>	Described below

**For benefits accrued on and after January 1, 2014:**

Amount based on the participant's Funding Improvement Plan Option, which depends upon the Schedule or Rehabilitation Plan provision which applied to the classification of employment when the Plan was in critical status.

<i>Default Option</i>	Unavailable
<i>First Alternative Option</i>	Unavailable
<i>Second Alternative Option</i>	Normal Retirement benefit amount

**For benefits accrued before January 1, 2014:**

Amount based on the participant's Home Local Schedule (Rehabilitation Plan Schedule) when the Plan was in critical status.

<i>Default Schedule/ Persons for Whom</i>	Unavailable
<i>First Alternative Schedule</i>	Unavailable
<i>Second Alternative Schedule</i>	Normal Retirement benefit amount
<i>NIC</i>	Normal Retirement benefit amount

*Note: The above applies to participants with an effective date of pension on or after February 1, 2014. Previously, the provisions described for benefits accrued before January 1, 2014 were in effect. Participant may be eligible for different early retirement provisions for pre-2014 and post-2013 accrued benefits. Portions of the post-2013 accrued benefits may also be subject different early retirement provisions depending on the classification of employment of the participant's Contribution Hours.*

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**55/30 Pension:**

<i>Age Requirement:</i>	55
<i>Service Requirements</i>	30 years of Future Service Credit with at least 60 months of the last 120 months of Future Service Credit subject to a 55/30 Rate
<i>Active Service Requirement</i>	Complete at least 3,500 hours of work in covered employment at 55/30 Rate during the five consecutive calendar years immediately preceding retirement
<i>Amount</i>	As described below

**For benefits accrued on and after January 1, 2014:**

Amount based on the participant's Funding Improvement Plan Option, which depends upon the Schedule or Rehabilitation Plan provision which applied to the classification of employment when the Plan was in critical status.

<i>Default Option</i>	Unavailable
<i>First Alternative Option</i>	Normal Retirement benefit amount
<i>Second Alternative Option</i>	Unavailable

**For benefits accrued before January 1, 2014:**

Amount based on the participant's Home Local Schedule (Rehabilitation Plan Schedule) when the Plan was in critical status.

<i>Default Schedule/ Persons for Whom</i>	Unavailable
<i>First Alternative Schedule</i>	Normal Retirement benefit amount
<i>Second Alternative Schedule</i>	Unavailable
<i>NIC</i>	Unavailable

*Note: The above applies to participants with an effective date of pension on or after February 1, 2014. Previously, the provisions described for benefits accrued before January 1, 2014 were in effect. Participant may be eligible for different early retirement provisions for pre-2014 and post-2013 accrued benefits. Portions of the post-2013 accrued benefits may also be subject different early retirement provisions depending on the classification of employment of the participant's Contribution Hours.*

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**60/30 Pension:**

<i>Age Requirement:</i>	60
<i>Service Requirements</i>	Same as 55/30 Pension
<i>Amount</i>	As described below

**For benefits accrued on and after January 1, 2014:**

Amount based on the participant's Funding Improvement Plan Option, which depends upon the Schedule or Rehabilitation Plan provision which applied to the classification of employment when the Plan was in critical status.

<i>Default Option</i>	Unavailable
<i>First Alternative Option</i>	Unavailable
<i>Second Alternative Option</i>	Normal Retirement benefit amount

**For benefits accrued before January 1, 2014:**

Amount based on the participant's Home Local Schedule (Rehabilitation Plan Schedule) when the Plan was in critical status.

<i>Default Schedule/ Persons for Whom</i>	Unavailable
<i>First Alternative Schedule</i>	Unavailable
<i>Second Alternative Schedule</i>	Normal Retirement benefit amount
<i>NIC</i>	Unavailable

*Note: The above applies to participants with an effective date of pension on or after February 1, 2014. Previously, the provisions described for benefits accrued before January 1, 2014 were in effect. Participant may be eligible for different early retirement provisions for pre-2014 and post-2013 accrued benefits. Portions of the post-2013 accrued benefits may also be subject different early retirement provisions depending on the classification of employment of the participant's Contribution Hours.*

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**Full Disability:**

<i>Age Requirement</i>	Under age 55
<i>Service Requirement</i>	10 years of Credited Service, including at least five years of Future Service Credit
<i>Active Service Requirement</i>	Worked at least 435 hours in the 24-month period immediately preceding the date of disablement
<i>Other Eligibility Requirement</i>	Approved for disability benefit with the Social Security Administration or Railroad Retirement Board
<i>Amount</i>	Early Retirement benefit amount, payable beginning in the seventh month of disability
<i>Charge for Coverage</i>	None

The Disability Benefit is not payable for participants categorized as Persons for Whom when the Plan was in critical status unless all eligibility conditions had been satisfied before January 1, 2010.

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**Vesting:**

<i>Age Requirement</i>	None
<i>Service Requirement</i>	Five years of Vesting Service
<i>Amount</i>	Normal Retirement benefit amount, based on plan in effect when last active
<i>Normal Retirement Age</i>	65

---

**Pre-Retirement Death Benefits**

**Surviving Spouse's Benefit:**

<i>Eligibility</i>	Has attained Vested Status
<i>Amount</i>	50% of the monthly benefit the participant would have received had he/she terminated employment on his/her date of death and survived to his/her Early Retirement Date (or any later date elected by the spouse), retired and elected to receive benefits in the Normal Form of payment.

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*When Paid* Immediately if participant's death occurred after attainment of his/her earliest retirement age, otherwise month in which the participant would have attained his/her earliest retirement age. If surviving spouse elects to receive payments before the month in which participant would have attained his/her earliest retirement age, the monthly benefit will be the actuarial equivalent of the amount described above.

**Lump Sum (if Surviving Spouse's Benefit is not payable):**

*Eligibility* Date of death after December 31, 2007; has attained Vested Status; no portion of the benefit assigned to an Alternative Payee under a QDRO; and worked at least 435 hours within 24-month period preceding death

*Amount* \$5,000

---

**Post-Retirement Death Benefits:**

*50% Joint and Survivor* If married, pension benefits are paid in the form of a 50% joint and survivor annuity unless the participant and spouse reject this form. If not rejected, the benefit amount otherwise payable is reduced to reflect the joint and survivor coverage. If not rejected, the spouse predeceases the employee, and the employee retired on March 1, 1999 or later, the employee's benefit amount will subsequently be increased to the unreduced amount payable ("pop-up" feature) had the joint and survivor coverage been rejected. If rejected, or if not married, benefits are payable for the life of the employee, or in any other available optional form elected by the employee in an actuarially equivalent amount.

The "pop-up" feature is only applicable to pre-2014 benefits if the participant's Home Local Schedule/Rehabilitation Plan Schedule as of December 31, 2013 was the First Alternative Schedule or Second Alternative Schedule. It is only applicable to post-2013 benefits attributable to Contribution Hours worked under a collective bargaining agreement satisfying the required contribution rate increases under the Rehabilitation Plan First Alternative Schedule/Funding Improvement Plan First Alternative Option or Rehabilitation Plan Second Alternative Schedule/Funding Improvement Plan Second Alternative Option.

*60-Month Certain* If the member has completed at least 15 years of Pension Credits before retirement and died within 5 years after retirement (if married, and taking joint and survivor pension, the spouse also



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died prior to receiving an amount equal to 60 times the amount of the pension the participant had been entitled), the pension benefit will continue to be paid to the participant's designated beneficiary until a total of 60 months payments had been made.

The 60-month certain is only applicable to pre-2014 benefits if the participant's Home Local Schedule/Rehabilitation Plan Schedule as of December 31, 2013 was the First Alternative Schedule or Second Alternative Schedule. It is only applicable to post-2013 benefits attributable to Contribution Hours worked under a collective bargaining agreement satisfying the required contribution rate increases under the Rehabilitation Plan First Alternative Schedule/Funding Improvement Plan First Alternative Option or Rehabilitation Plan Second Alternative Schedule/Funding Improvement Plan Second Alternative Option.

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**Forms of Payment:**

The normal forms of payment are:

- Single life annuity for single participants, and
- 50% joint and survivor annuity with a "pop-up" feature for married participants (if applicable)

The available optional forms of payment are:

- Single life annuity with 60-month certain (if applicable)
- 50% joint and survivor annuity with a "pop-up" feature and 60-month certain (if applicable)
- 75% joint and survivor annuity with a "pop-up" feature (if applicable)
- 100% joint and survivor annuity with and without a "pop-up" feature (if applicable)

The "pop-up" feature and 60-month certain are only applicable to pre-2014 benefits if the participant's Home Local Schedule/Rehabilitation Plan Schedule as of December 31, 2013 was the First Alternative Schedule or Second Alternative Schedule. They are only applicable to post-2013 benefits attributable to Contribution Hours worked under a collective bargaining agreement satisfying the required contribution rate increases under the Rehabilitation Plan First Alternative Schedule/Funding Improvement Plan First Alternative Option or Rehabilitation Plan Second Alternative Schedule/Funding Improvement Plan Second Alternative Option.

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**Participation:** After completion of 870 hours during a calendar year

**Past Service Credit:** Service granted on the basis of days worked or amount earned in covered employment in calendar years prior to a participant’s Contribution Date. For employers with a Contribution Date on or after January 1, 2000, the employer’s initial contribution rate must be at least \$0.50 per hour.

**Future Service Credit:** Service granted on the basis of hours of work in a calendar year after a Participant’s Contribution Date in accordance with the following schedule:

<u>Months of Future Service Credit</u>	<u>Hours of Work in Covered Employment During Calendar Year</u>
0	Less than 100
1	100 - 199
2	200 - 299
3	300 - 399
4	400 - 499
5	500 - 599
6	600 - 699
7	700 - 799
8	800 - 899
9	900 - 999
10	1,000 - 1,099
11	1,100 - 1,199
12	1,200 & Over

**Pension Credit:** Sum of the Past Service Credit and Future Service Credit (excluding service lost under the Plan’s break in service rules)

**Vesting Service:** 870 or more hours of work within a Plan year earns one year of Vesting Service

**Contribution Rate:** Varies from \$0.05 to \$14.03 per hour as of the valuation date. The average rate is \$4.35 per hour as of January 1, 2014. 2.5% of employer contributions are allocated to 401(h) Medical Accounts but are subject to pension benefit accruals.

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**Required Contribution Increases:** Future contribution rate increases required under the previous Rehabilitation Plan Schedules and current Funding Improvement Plan Options are described below.

*Rehabilitation Plan First  
Alternative Schedule/Funding  
Improvement Plan First  
Alternative Option:*

7.0% for 2014 - 2017 Plan Years

*Rehabilitation Plan Second  
Alternative Schedule/Funding  
Improvement Plan Second  
Alternative Option:*

3.5% for 2014 - 2017 Plan Years

The above increases are recognized in future valuations as adopted in each contract.

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**Cost of Living Adjustment (COLA):**

*Eligibility*

Pensioners and beneficiaries whose benefits are based on contribution rates that were increased by the Required Pension Fund Increase and who separated and retired from Covered Employment on or after January 1, 1991 and before December 1, 2001

No payment is made after January 1, 2008 unless the annual supplement had been in effect 60 months before that date (i.e., the benefit must have been payable on the participant's Allocation Date for 2002 – October 31, 2002).

*Amount*

An annual supplement equal to 2% of the participant's total monthly payments for the 12 months immediately preceding the Allocation Date, multiplied by the number of whole years preceding the Allocation Date that the participant or beneficiary has received benefits, up to a maximum of 15 years. If the participant had elected a level income option, the 2% factor is applied to the benefit prior to the adjustment for the form of payment.

Effective July 1, 1995, no NPF COLA Benefit is payable with respect to any benefits accrued after June 30, 1995.

A participant who was retired and received an annual supplemental increase under the NPF COLA Benefit for the 2002 Allocation Date will continue to receive the benefit, but it will not

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exceed the supplement that was paid for the 2002 Allocation Date (i.e., it remains fixed at that amount)

**Changes in Plan Provisions:**

The Plan is in endangered status for the 2014 Plan Year and the Trustees adopted a Funding Improvement Plan. Previously the Plan was in critical status and was operating under a Rehabilitation Plan.

For participants retiring with an effective date on or after February 1, 2014, the benefit provisions described above apply. Benefits earned under a Funding Improvement Plan Option for service on or after January 1, 2014 are subject to early retirement provisions depending upon the Schedule or Rehabilitation Plan provision which applied to the classification of employment when the Plan was in critical status.

Effective January 1, 2014, the formula used to determine benefit accruals for service on and after January 1, 2014 was changed to one that varies with the three-year average market value investment return as described above.

Contribution rates increased in accordance with the Rehabilitation Plan. Since benefit accruals are tied directly to contribution rates, the contribution rate increases are treated as a Plan change. In addition, any change in a participant's Rehabilitation Plan Schedule or Funding Improvement Plan Option due to a change in contribution rate increases under the applicable collective bargaining agreement is treated as a plan change.

The average contribution rate increased from \$4.12 per hour as of January 1, 2013 to \$4.35 per hour as of January 1, 2014. The average rate for 2014, including reported bargained increases, is \$4.35 per hour.

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