Laborers Pension Trust Fund for Northern California

Withdrawal Liability Valuation

As of May 31, 2019

This report has been prepared at the request of the Board of Trustees for the purposes of establishing the basis for withdrawal liability assessments during the June 1, 2019 through May 31, 2020 period. This 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 report may not be applicable for other purposes.

Segal

180 Howard Street, Suite 1100
San Francisco, CA 94105-6147
segalco.com
T 415.263.8200

May 22, 2020

Board of Trustees
Laborers Pension Trust Fund for Northern California
Fairfield, CA

Dear Trustees:

This report summarizes and reviews the Plan's status and experience with respect to employer withdrawal liability. It outlines the withdrawal liability method adopted and explains the calculation of the amount of liability of a withdrawn employer. It also establishes the basis for assessments of withdrawal liability for a withdrawal during the period June 1, 2019 through May 31, 2020.

The actuarial calculations were completed under the supervision of Mark Hamwee, FSA, MAAA, Enrolled Actuary. The basic participant and financial data used in this report are the same as those used in the actuarial valuation as of June 1, 2019. The benefit provisions included in the calculations are those that were in effect on May 31, 2019.

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

Sincerely,

Segal

By: ______________________________
Timothy J. Losee
Vice President and Benefits Consultant

MAM/hy

cc: Luis Arteaga
Jasmine S. Baker, CPA
Jill Bohnet
Sarah Bowen, Esq.
Anthony Brooks
Patricia Davis, Esq.
Edwin Embry
Gemma Ganoy
Jesusita Hernandez
Nickolas King
Byron Loney
Conchita Lozano-Batista, Esq
Larissa Manalansan
Ronald L. Richman, Esq.
Joseph Thiermann, CPA
Kristina Zinnen, Esq.

Table of Contents

Actuarial Valuation Summary

Important information about withdrawal liability valuations

A withdrawal liability valuation is prepared to assist in the determination and assessment of withdrawal liability. It is a forecast of future uncertain obligations of a pension plan. As such, the forecast will never precisely match the actual stream of benefits and expenses to be paid.

In order to prepare withdrawal liability valuations, Segal relies on a number of input items. These include:

Plan Provisions	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. 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. For an employer withdrawing in a particular plan year, the relevant plan provisions are those in effect at the end of the prior plan year.
Participant Information	The present value of vested benefits, upon which withdrawal liability for an employer is determined, 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. It is not necessary to have perfect data for a valuation: the valuation is an estimated forecast, not a prediction. 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.
Financial Information	The withdrawal liability valuation is based on the asset values as of the valuation date, typically reported by the auditor. The allocation of the unfunded present value of vested benefits to an employer is based on its detailed obligated contribution information as well as that for other participating employers, as provided by the plan.
Actuarial Assumptions	In measuring the present value of vested benefits for withdrawal liability purposes, Segal starts by developing a forecast of the vested 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 and retirement. The forecasted benefits are then discounted to a present value. The actuarial model used to develop the present value of vested benefits for withdrawal liability purposes may use approximations and estimates that will have an immaterial impact on our results. 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

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

The withdrawal liability valuation report is prepared for use by the Trustees. It includes information relative to the provisions of ERISA pertaining to withdrawal liability. Segal is not responsible for the use or misuse of its report, particularly by any other party.
A withdrawal liability valuation is a measurement as of a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of other potential financial measurements.
The measurements in this report are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations or the need for or the amount of future contributions.
Segal does not provide investment, legal, accounting, or tax advice. This withdrawal liability valuation report is based on Segal's understanding of applicable guidance in these areas and of the plan's provisions, but 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, a withdrawal liability valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's results, Segal may revise that valuation report or make an appropriate adjustment in the next valuation.
Segal's withdrawal liability 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 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.

Significant issues in valuation year

- The unfunded vested liability as of May 31, 2019 is $1.34 billion. A negative basic pool of $117 million was established as of May 31, 2019.
- Interest rates used to determine the funded portion of the present value of vested benefits changed from 2.27% for 20 years and 2.59% thereafter to 3.07% for 20 years and 3.05% thereafter (PBGC interest rates).
- The Hod Carriers Local No. 166 Pension Trust Fund ("Hod Carriers") merged into this plan, effective May 31, 2018. The merger satisfied the definition of a *de minimis* transaction under PBGC Regulation §4231.7(b). The liability for the new participants entering the plan as part of the merger was recognized in last year's valuation and the assets from the prior Hod Carriers plan are reflected in this year's valuation.
- The decrease in the unfunded vested liability since last year was primarily caused by the increase in the PBGC interest rates.
- The unfunded vested liability as of May 31, 2019 does not reflect the supplemental bonus checks payable in December 2019 and December 2020.

Summary of key results

		2018	2019
Demographic Data:	• Number of pensioners and beneficiaries, including suspensions	11,671	11,792
	• Number of inactive vested participants	7.560	8,032
	• Number of active vested participants	10,122	10,320
Interest Assumptions:	• Valuation (funding) interest rate	7.50%	7.50%
	• PBGC interest rates	2.27% for 20 years, 2.59% thereafter	3.07% for 20 years, 3.05% thereafter
Present Value of Vested Benefits:	• Present value of vested benefits at funding interest rate	$2,960,003,244	$3,038,623,207
	• Present value of vested benefits at PBGC rates, including allowance for expenses	6,090,678,565	5,520,494,476
	• Present value of vested benefits for withdrawal liability purposes	4,403,051,822	4,427,573,374
Unfunded Vested Liability:	• Market value of assets	$2,807,427,836	$3,089,480,031
	• Unfunded vested liability for withdrawal liability purposes	1,595,623,986	1,338,093,343
	• Unamortized balance of reallocated pools	86,328	79,687
	• Total amount allocable to withdrawing employers	1,595,710,314	1,338,173,030
Withdrawal Liability Pools Established:	• Basic pool	$84,399,153	$(117,189,650)
	• Reallocated pool	0	0

Actuarial Valuation Results

A. Determination of withdrawal liability

The Multiemployer Pension Plan Amendments Act of 1980 (MPPAA) requires assessment of withdrawal liability on an employer that withdraws from the Plan. In general, "withdrawal" means the employer has permanently ceased operations under the Plan or has permanently ceased to have an obligation to contribute to the Plan.

An employer in the construction industry is considered to have withdrawn from the Plan only if it continues (or within five years resumes) the same type of work in the jurisdiction of the labor contract.

Determination of unfunded vested liability

The amount of withdrawal liability is based on the Plan's unfunded vested liability at the time of withdrawal. The "unfunded vested liability" refers to the value of vested benefits not covered by assets.

For withdrawal liability purposes, "vested benefits" are the benefits that are considered non-forfeitable if the participant incurs a permanent break in service. The value of these benefits is based on the Plan provisions as of May 31, 2019.

Determinations of the value of the liability for vested benefits are based on a set of actuarial assumptions. The law prescribes that the assumptions and methods used must be reasonable in the aggregate and "offer the actuary's best estimate of anticipated experience under the plan." It also authorizes the PBGC to promulgate assumptions and methods for use by the Plan's actuary. However, the PBGC has not yet promulgated any assumptions or methods.

The actuarial assumptions and methods are reasonable (taking into account the experience of the Plan and reasonable expectations) and, in combination, represent the actuary's best estimate of anticipated experience under the Plan to determine the unfunded vested benefits for withdrawal liability purposes.

The interest rate is based on a blend, which includes rates selected based on estimated annuity purchase rates for benefits being settled, because withdrawal liability is a final settlement of an employer's obligations to the Plan. For benefits that could be settled immediately, because assets on hand are sufficient, the annuity purchase rates are those promulgated by PBGC under ERISA Sec. 4044 for multiemployer plans terminating by mass withdrawal on the measurement date. For benefits that cannot be settled immediately because they are not currently funded, the calculation uses rates equal to the interest rate used for plan funding calculations.

Allocation

The Plan's method of allocation is fully described in *Section 3, Exhibit A*. Briefly, the method involves prorating the unfunded vested liability as of May 31, 1980 plus (or minus) a proration of changes in that figure in each subsequent year before withdrawal. The original unfunded vested liability and each year's change are subject to 5% annual write-downs. This method is known as the "presumptive method" and is the method adopted by the Trustees.

Another amount is added to the total amount to be allocated for possible withdrawal liability, namely, the amounts not collected because of bankruptcy, deductibles subtracted from amounts actually assessed, or other limitations on withdrawal assessments specified by law. These uncollected or nonassessable amounts are reallocated among the employer accounts and are also subject to 5% annual write-downs.

The PBGC has affirmed that a multiemployer plan may assess withdrawal liability to employers that withdraw even if the plan currently has no unfunded vested liability.

De minimis

Each withdrawal liability assessment is the total of the unamortized balances of the allocation amounts, as defined above, less a *de minimis* deductible. The deductible is $50,000 but not more than ¾% of the Plan's unfunded vested liability. This deductible amount is reduced, dollar for dollar, by the amount by which the total of charges prorated to the employer exceeds $100,000.

Payment of withdrawal liability

The total amount of an employer's withdrawal liability is not ordinarily payable in a lump sum. The law sets forth a basis for calculating annual amounts, to be paid in quarterly installments unless the plan has fixed some other schedule, and there is a 20-year payment maximum. The payment schedule is more fully detailed in *Section 3, Exhibit A.*

Under certain circumstances, as allowed by ERISA, the Trustees may require immediate payment of withdrawal liability assessments.

B. Unfunded vested liability

The determination of the unfunded vested liability is based on the actuarial assumptions and methods and plan of benefits described in *Section 4* of this report.

Changes since prior year

The following assumption changes were made since last year's determination:

- PBGC interest rates changed from 2.27% for 20 years and 2.59% thereafter to 3.07% for 20 years and 3.05% thereafter.

The following plan change is reflected in this year's determination:

- The Hod Carriers Local No. 166 Pension Trust Fund ("Hod Carriers") merged into this plan, effective May 31, 2018. The merger satisfied the definition of a de minimis transaction under PBGC Regulation §4231.7(b). The liability for the new participants entering the plan as part of the merger was recognized in last year's valuation and the assets from the prior Hod Carriers plan are reflected in this year's valuation.

Plan changes effective after May 31, 2019 are not included in this year's determination; any such changes will be included in subsequent determinations. These changes include:

- Effective August 1, 2019, the benefit accrual rate was increased from 2.3% to 3.3% of benefit contributions.
- A supplemental check of $500 was paid in December 2019 to those in pay status who are over age 70.
- A supplemental check of $500 will be paid in December 2020 to retirees who have been in good standing with the union for the preceding twelve months.

Basic pools

The Plan's unfunded vested liability for withdrawal liability purposes for each of the past 19 plan years is detailed below. The chargeable change before 2001 is either zero or fully amortized.

The chargeable change amount is determined as the unfunded vested liability for a given year less the greater of the sum of the previous unamortized balances or zero. The unamortized balance of each chargeable change is equal to the initial amount with a 5% write-down each year since the establishment of said amount.

Basic Pools as of May 31, 2019

Plan Year Ended May 31	Unfunded Vested Liability	Chargeable Change	Unamortized Balance of Chargeable Change
2001	$99,937,500	$99,937,500	$9,993,750
2002	295,562,700	216,589,900	32,488,485
2003	489,149,600	205,017,200	41,003,440
2004	677,783,862	212,111,962	53,027,991
2005	743,332,855	98,179,036	29,453,711
2006	720,204,421	17,150,726	6,002,754
2007	755,225,836	75,491,216	30,196,486
2008	762,435,218	51,745,534	23,285,490
2009	1,115,376,106	399,708,162	199,854,081
2010	1,312,095,254	266,467,289	146,557,009
2011	1,345,510,002	116,645,009	69,987,005
2012	1,568,059,976	311,612,487	202,548,117
2013	1,569,502,493	106,085,651	74,259,956
2014	1,466,201,710	4,360,177	3,270,133
2015	1,625,584,044	267,435,267	213,948,214
2016	1,648,518,360	145,361,172	123,556,996
2017	1,647,345,867	128,522,422	115,670,180
2018	1,595,623,986	84,399,153	80,179,195
2019	1,338,093,343	(117,189,650)	(117,189,650)
Total			1,338,093,343

Reallocated amounts

Withdrawing employers are charged with prorated shares of the "nonassessable" or "uncollectible" liabilities that are reallocated. Reallocation is more fully described in *Section 3, Exhibit A.*

Each annual reallocated amount is written down by 5% of the original amount for each full year from the date that it was originally determined to the end of the plan year preceding withdrawal.

The reallocated pools are shown in the chart below.

Reallocated Pools as of May 31, 2019

Plan Year Ended May 31	Initial Value	Unamortized Balance
2011	$132,812	$79,687

C. Withdrawal liability experience

We have not been notified of any employers withdrawing from the fund during the last plan year, nor of any outstanding withdrawal liability payments.

For the last plan year, the Fund received $19,752 from withdrawal liability assessments. These serve to fund the Plan in the same manner as employer contributions.

An employer is entitled to be advised, upon its request, of the amount of its potential withdrawal liability.

Supplementary Information

Exhibit A: Method for Allocating Withdrawal Liability

The Plan determines the liability of an employer that has completely withdrawn on the basis of the statutory presumptive method defined in Section 4211(b) of ERISA.

The liability of an employer for complete withdrawal from the Plan is determined as the sum of the unamortized balances, as of the end of the plan year preceding withdrawal, of the employer's prorated shares of each of the following:

- the Plan's unfunded vested liability as of May 31, 1980;
- the change in the Plan's unfunded vested liability as of the end of each subsequent plan year (to the end of the plan year preceding withdrawal); and
- reallocated amounts that would have been payable to the Plan as withdrawal liability payments for withdrawals in preceding years, except that they were nonassessable under certain statutory provisions or not collectible.

Unamortized balances

The "unamortized balance" of each of these sources of liability assessment is determined by reducing each figure by 5% of its original amount for each full year from the end of the plan year as of which the charge was originally determined to the end of the plan year immediately preceding withdrawal.

Initial amount

The Plan's unfunded vested liability as of May 31, 1980 was determined by subtracting the market value of Plan assets from the value of vested benefits under the Plan.

Annual changes

The change in the Plan's unfunded vested liability as of the end of any plan year is generally determined as follows:

- by establishing the Plan's unfunded vested liability as of the end of that plan year, and
- by subtracting the total, not less than zero, of (a) the unamortized balance of the unfunded vested liability as of May 31, 1980 and (b) the unamortized balances of each previous annual change after May 31, 1980.

A "positive" change represents an unfunded vested liability greater than the total of the unamortized balances and is an addition to potential liability assessments for future withdrawals. A "negative" change represents an unfunded vested liability lower than the total of unamortized balances and is a credit against amounts that would otherwise determine potential liability assessments for future withdrawals.

Reallocated amounts

The total amount, if any, of unfunded vested liability determined in any plan year after May 31, 1980 to be nonassessable or uncollectible with respect to employers that withdrew is established as an amount to be prorated among each of the participating employers as an additional withdrawal liability amount. Nonassessable amounts consist of amounts deducted under the *de minimis* rule (ERISA Section 4209), amounts not payable because of the 20-year limit (ERISA Section 4219(c)(1)), and amounts not payable because of the limitations in the event of sale of all of the employer's assets (ERISA Section 4225). Uncollectible amounts consist of amounts that the Trustees have determined are uncollectible for reasons arising out of cases under federal bankruptcy law or similar proceedings. They also include any other amount of assessed liability determined by the Plan's Trustees to be uncollectible.

Each annual amount of reallocable nonassessables and uncollectibles is written down by 5% of the original amount for each full year from the date as of which it was originally determined to the end of the plan year preceding withdrawal.

Proration to the employer

For determining the amount of its liability in the event of its complete withdrawal, the initial amount of unfunded vested liability, each annual change in the unfunded vested liability and each annual reallocable amount of nonassessable and uncollectible amounts are prorated to an employer on the basis of a ratio of contributions. The ratio is the employer's obligated contributions to the Plan to total employer contributions made to the Plan during an "apportionment base period," consisting of the 5 years ending with the end of the plan year as of which each of the amounts was determined.

The total of employer contributions with respect to an apportionment base period is reduced by any contributions otherwise included in the total that were made by a significant employer that withdrew from the Plan in or before the plan year in which the change or reallocation arose. The total is also reduced by any employer surcharges paid to a plan that resulted from the plan being in critical status under PPA '06. MPRA provides that contribution increases that go into effect after May 31, 2015 pursuant to a Funding Improvement or Rehabilitation Plan are also disregarded.

Payment of withdrawal liability

A withdrawn employer's withdrawal liability assessment is payable in quarterly installments. The quarterly installment is calculated as one-fourth of the product of:

- The average base units in the three consecutive years that produce the highest average within the 10-year period ending before the plan year of withdrawal, and
- the highest contribution rate in the 10-year period ending with the plan year of withdrawal.

Per MPRA, any contribution surcharges accruing on or after May 31, 2015 or any increases in the contribution rate required under a Funding Improvement or a Rehabilitation Plan that go into effect after May 31, 2015 are excluded from the determination of the highest rate in the 10-year period described above.

The number of quarterly installments is calculated on the basis of the amount of withdrawal liability and interest at the actuarial valuation rate used for funding purposes. Payments are limited to a maximum of 20 years.

Maintenance of allocations

Even if no employer withdrawal had occurred, an annual determination of the Plan's unfunded vested liability, and of any reallocable uncollectible withdrawal liability amounts, is required. The Plan must be in a position to allocate liability to any particular employer based on its contribution history. These procedures and records are necessary in order to be able to determine an assessment should withdrawal occur and also to respond to an inquiry from a participating employer as to the amount of its potential liability.

Partial withdrawal

The withdrawal may also be partial. A "partial withdrawal" occurs if there is a 70% decline in the number of contribution base units or there is a partial cessation of the employer's obligation to contribute. A 70% decline occurs if the contribution base units in the plan year and the preceding two plan years (the testing period) are less than 30% of contribution base units for the high base year. The "high base year" is the average of the base units in the two plan years in which the base units were the highest within the five plan years preceding the testing period. A partial withdrawal may also occur if an employer ceases to have an obligation to contribute under one or more, but not all of its collective bargaining agreements, and continues work in the jurisdiction, or if the employer permanently ceases to be obligated to contribute for work performed at one or more, but not all, of the facilities covered but continues the work at that facility.

For a construction-industry plan, a partial withdrawal occurs only if the employer is obligated to contribute to the plan for only an insubstantial portion of its continuing work of the type covered by the plan within the jurisdiction of the labor agreement.

Under a partial withdrawal, the amount of liability is equal to the amount of withdrawal liability for a complete withdrawal (net of any deductible), multiplied by a fraction, which is one minus a ratio. The ratio is that of the employer's contributory hours in the plan year following the year of the partial withdrawal to the employer's average contributory hours in the five plan years preceding the year of the partial withdrawal.

Plan reentry

PBGC has issued regulations describing the procedure to be followed in the event an employer reenters the Plan after incurring withdrawal liability. Withdrawal liability will be abated if the post-reentry level of contributory hours exceed 30% of the average of the contributory hours in the two plan years in which the hours were the highest within the five plan years preceding the plan year of withdrawal, provided the employer posts a bond or escrow account equal to 70% of the withdrawal liability payments otherwise due. In the event of a withdrawal following reentry, the withdrawal liability is adjusted to reflect prior withdrawal liability payments.

Exhibit B: Employer Withdrawal Liability Worksheet for Withdrawals from June 1, 2019 Through May 31, 2020

Employer Name:

Year Ended May 31[1]	Unamortized Balance of Withdrawal Liability Pools: Basic Pools[2]	Unamortized Balance of Withdrawal Liability Pools: Reallocated Pools[3]	Contributions During 5-Year Period Ending With Date Pool Established: Total Plan Contributions[4]	Contributions During 5-Year Period Ending With Date Pool Established: Obligated Employer Contributions[5]	Liability Allocated: [(5) ÷ (4)] x [(2) + (3)]
(1)	(2)	(3)	(4)	(5)	(6)
2001	$9,993,750	$0	$248,525,117		
2002	32,488,485	0	268,180,753		
2003	41,003,440	0	282,079,913		
2004	53,027,991	0	290,384,052		
2005	29,453,711	0	293,230,254		
2006	6,002,754	0	303,730,717		
2007	30,196,486	0	342,341,039		
2008	23,285,490	0	398,745,036		
2009	199,854,081	0	460,336,906		
2010	146,557,009	0	513,133,723		
2011	69,987,005	79,687	557,556,920		
2012	202,548,117	0	602,120,566		
2013	74,259,956	0	680,471,771		
2014	3,270,133	0	780,762,747		
2015	213,948,214	0	908,307,817		
2016	123,556,996	0	1,052,756,706		
2017	115,670,180	0	1,191,335,126		
2018	80,179,195	0	1,331,942,397		
2019	(117,189,650)	0	1,451,176,333		
A. Gross Liability: (Sum of Column 6)					
B. *De minimis*					50,000
C. Deductible: $100,000 + (B) – (A), but not greater than (B) nor less than zero					
D. Net Allocable Share of Unfunded Vested Liability: (A) – (C), not less than zero and without regard to annual payment limitations					

1 Years not shown have no withdrawal liability component.
2 Original value of changes in unfunded vested liability, written down 5% per year.
3 Original value of nonassessable and uncollectible withdrawal liability, written down 5% per year.
4 Total Fund contributions for the plan year listed and the four preceding years, excluding contributions from withdrawn significant employers who withdrew on or before the date the pool was established.
5 Obligated employer contributions for the plan year listed and the four preceding years, including contributions owed but not yet paid.

Actuarial Certification

May 22, 2020

Actuarial Certification of Withdrawal Liability

This is to certify that Segal has prepared an Actuarial Valuation to calculate the pools used to assess withdrawal liability to employers who withdraw during the year beginning June 1, 2019. The calculations were performed in accordance with generally accepted actuarial principles and practices. 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 valuation was based on information supplied by the auditor with respect to contributions and assets and by the Plan Administrator with respect to the data required on participants. We have not verified and customarily would not verify such information, but we have no reason to doubt its substantial accuracy.

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, and in my opinion the assumptions used, in the aggregate, (a) are reasonable (taking into account the experience of the Plan and reasonable expectations) and (b) represent my best estimate of anticipated experience under the Plan.

Mark Hamwee, FSA, MAAA
Vice President & Actuary
Enrolled Actuary No. 20-05829

Exhibit 1: Calculation of Unfunded Vested Liability

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

Pensioners as of the valuation date (including 2,003 beneficiaries in pay status and 110 pensioners in suspended status)	11,792
Participants inactive with vested rights	8,032
Participants active with vested rights	10,320
Total participants	**30,144**

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

Present value of vested benefits at funding interest rate	$3,038,623,207
Present value of vested benefits at PBGC interest rates, including allowance for expenses	5,520,494,476
Market value of assets	3,089,480,031
Funded ratio at PBGC interest rates	0.5596
Present value of vested benefits for withdrawal liability purposes	4,427,573,374
Unfunded vested liability	1,338,093,343
Unamortized balance of reallocated pools	79,687
Total amount allocable to withdrawing employer	1,338,173,030

Exhibit 2: Withdrawal Liability Pools

Pool Established May 31	Original Amount		Pool Balance on May 31, 2019[1]	
	Basic Pool	Reallocated Pool	Basic Pool	Reallocated Pool
2001	$99,937,500	$0	$9,993,750	$0
2002	216,589,900	0	32,488,485	0
2003	205,017,200	0	41,003,440	0
2004	212,111,962	0	53,027,991	0
2005	98,179,036	0	29,453,711	0
2006	17,150,726	0	6,002,754	0
2007	75,491,216	0	30,196,486	0
2008	51,745,534	0	23,285,490	0
2009	399,708,162	0	199,854,081	0
2010	266,467,289	0	146,557,009	0
2011	116,645,009	132,812	69,987,005	79,687
2012	311,612,487	0	202,548,117	0
2013	106,085,651	0	74,259,956	0
2014	4,360,177	0	3,270,133	0
2015	267,435,267	0	213,948,214	0
2016	145,361,172	0	123,556,996	0
2017	128,522,422	0	115,670,180	0
2018	84,399,153	0	80,179,195	0
2019	(117,189,650)	0	(117,189,650)	0

1 Basic and reallocated pools are written down annually at the rate of 5% of the original amount.

Exhibit 3: Actuarial Assumptions and Methods

Rationale for Demographic and Noneconomic Assumptions	The information and analysis used in selecting each demographic assumption that has a significant effect on this actuarial valuation is shown in the Actuarial Experience Study as of November 24, 2014. Current data is reviewed in conjunction with each annual valuation. Based on professional judgment, no assumption changes are warranted at this time.
Investment Return	To the extent the vested benefits are matched by the market value of plan assets on hand: interest assumptions prescribed by the Pension Benefit Guaranty Corporation under 29 C.F.R. Ch. XL, Part 4044, which are in effect for the applicable withdrawal liability valuation date, are used. PBGC Interest Rates as of May 31, 2019: – First 20 years 3.07% – After 20 years 3.05% To the extent the vested benefits are not matched by plan assets (at market), the interest assumption is the same as used for plan funding: 7.50% The portion of the vested benefits that is matched by readily available assets is determined by comparing the total present value of vested benefits plus expenses – at PBGC rates – with the total market value of assets; each vested benefit is treated as covered by assets to the same extent as all other vested benefits. The discount rate is based on a blend, which includes rates selected based on estimated annuity purchase rates for benefits being settled, because withdrawal liability is a final settlement of an employer's obligations to the Plan. For benefits that could be settled immediately, because assets on hand are sufficient, the annuity purchase rates are those promulgated by PBGC under ERISA Sec. 4044 for multiemployer plans terminating by mass withdrawal on the measurement date. For benefits that cannot be settled immediately because they are not currently funded, the calculation uses rates equal to the discount rate used for plan funding calculations.
Mortality Rates	*Post-Retirement (Healthy)*: RP-2014 Healthy Blue Collar Annuitant Tables, generationally projected using Scale MP-2014. *Post-Retirement (Disabled):* RP-2014 Healthy Blue Collar Annuitant Tables, set forward 2 years. *Pre-Retirement:* RP-2014 Blue Collar Employee Tables, generationally projected using Scale MP-2014. The tables for non-disabled lives with generational projection to the age of participants as of the measurement date reasonably reflect the mortality experience of the Plan as of the measurement date. These tables were then adjusted to future years using generational projection to reflect future mortality improvement between the measurement date and those years.

Retirement Rates for Active Participants	See table below
Retirement Age for Inactive Vested Participants	The earliest of Service Pension eligibility, age 60 with 10 years of service, or age 65.
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	Active participants are defined as those with at least 500 hours in the most recent Plan Credit Year and who have accumulated at least one year of Credited Service as of August 1, 2019, excluding those who have retired as of the valuation date.
Exclusion of Inactive Vested Participants	Inactive participants over age 70 are excluded from the valuation (176 exclusions for this valuation).
Percent Married	80%
Age of Spouse	Spouses of male participants are three years younger and spouses of female participants are three years older.

Retirement Rates for Active Participants

	Annual Retirement Rates	
Age	**Service Pensions**	**Non-Service Pensions**
Less Than 55	26%	N/A
55	31%	6%
56	31%	6%
57	31%	6%
58	31%	6%
59	31%	8%
60	36%	8%
61	36%	15%
62	60%	35%
63	45%	25%
64	45%	25%
65 & Over	100%	100%

Section 4: Actuarial Certification

Benefit Election	50% of future pensioners are assumed to elect a 50% Husband-and-Wife Pension and 50% are assumed to elect a Single-Life Pension.
Annual Administrative Expenses	$10,000, plus $200 per vested participant, plus a percentage (defined by statute) of the excess of the value of plan benefits over $200,000, and is applicable to the portion of benefits that is matched by assets.
Actuarial Value of Assets	At market value
Allocation Method	Presumptive
Contribution Period for Prorating Liabilities	5 years
***De minimis* Deductible**	$50,000, or 3/4 of 1% of the unfunded vested liability, if smaller. The deductible is reduced, dollar for dollar, if the gross assessment is in excess of $100,000

Exhibit 4: Summary of Plan Provisions

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.

Plan Year	June 1 through May 31
Plan Credit Year	August 1 through July 31
Plan Status	Ongoing plan
Regular Pension	• *Age Requirement:* 65 • *Service Requirement:* 5 years of Credited Service. • *Amount:* $75.00 per month for each Past Service Benefit Unit; plus $95.00 per month for each Future Service Benefit Unit earned through July 31, 1986; plus 3.30% of the contributions received between August 1, 1986 and July 31, 2003; plus 2.30% of the contributions received between August 1, 2003 and July 31, 2019; plus 3.30% of the contributions received for service thereafter. In addition, a benefit of $50 per month is provided to participants who have worked a minimum of 2,000 hours in the 48 months preceding retirement. • Effective June 1, 2005, contributions in excess of $2.16 per hour are not recognized for benefit crediting purposes.
Early Retirement Pension	• *Age Requirement:* 55 • *Service Requirement:* 10 years of Credited Service • *Amount:* Accrued Regular Pension amount, reduced 3% for each year that the retiring employee is younger than age 65. (The supplemental lifetime benefit of $50 per month is not subject to the Early Retirement reduction factor).
Disability Pension	• *Age Requirement:* None • *Service Requirement:* 10 years of Credited Service; earned at least two quarters of Credited Service in the two consecutive Plan Credit Year period preceding the date of disability. • *Other Requirement:* Totally disabled and entitled to a Social Security Disability award and disability as a result of actual employment. • *Amount:* $50 per Benefit Unit per month. In addition, a supplemental lifetime benefit of $50 per month is provided.
Service Pension	• *Age Requirement:* 55 for participants entering plan from August 1, 2013 to July 31, 2015; 60 for those entering plan August 1, 2015 or later; otherwise none • *Service Requirement:* 25 Benefit Units (A maximum of 1.0 Benefit Unit is recognized each Plan Credit Year to meet this requirement) • *Amount:* Accrued Regular Pension amount.
Pro Rata/Partial Pension	This type of pension is available for laborers who have earned at least 5 years of combined Credited Service under this Plan and Related Pension Plans.

Section 4: Actuarial Certification

Deferred Vested Pension	• *Age and Service Requirements:* Age 65 and vested; or age 55 with 10 years of Credited Service • *Amount:* Accrued Regular Pension amount, payable commencing at Normal Retirement Age or, on a reduced basis, as early as age 55.
Normal Retirement Age	65, or if later, the fifth anniversary of participation
Spouse's Benefit	• *Age Requirement:* None • *Service Requirement:* 5 years of Credited Service. • *Amount:* 50% of the benefit that the participant would have received had he or she retired the day before death, on a 50% Husband-and-Wife pension. If the participant was not eligible for a Service Pension and the participant's death occurs before age 55, benefits to the surviving spouse will be deferred to the date when the participant would have attained that age.
Pre-Retirement Death Benefit	• *Age Requirement:* None • *Service Requirement:* 5 years; earned at least two quarters of Credited Service in the two consecutive Plan Credit Year period preceding the date of death. • *Other Requirement:* Death as a result of actual employment. • *Amount:* Accrued Regular Pension amount payable immediately to the designated beneficiary until 36 payments are made. This benefit is applicable only if the participant is not married, or if payments are not due under the Spouse's Benefit.
Husband and Wife Pension	All retirements are paid in the form of a 50% Husband-and-Wife pension unless this form is rejected by the participant and spouse. The benefit amount otherwise payable is reduced (88% for same age participant/spouse retiring on a non-disability pension) to reflect the joint and survivor coverage. For pensions effective after October 1, 1998, if the spouse should predecease the pensioner after the effective date of the pension, the benefit amount payable to the pensioner will be increased to the amount payable if the pension had not been paid in the form of a 50% Husband-and-Wife Pension. If this type of pension is rejected, or if the participant is not married, benefits are payable for the life of the participant without reduction or in any other available optional form elected by the participant in an actuarially equivalent amount.
Post-Retirement Death Benefit	A lump sum benefit shall be paid to the surviving spouse of a deceased pensioner, in an amount equal to $100 for each Benefit Unit earned under the Plan at the time of retirement.

Section 4: Actuarial Certification

Optional Forms of Benefits	• 50% Husband-and-Wife Pension ("QJSA") • Single-Life Pension • Optional Five-Year Guarantee of Pension Payments • 75% Husband-and-Wife Pension • 100% Husband-and-Wife Pension
Service Schedules	• *Credited Service:* Commencing August 1, 1975, a participant who works at least 870 hours in a Plan Credit Year receives one year of Credited Service. Fractional credit is given in quarter-year increments to employees who work at least 435 hours. Effective August 1, 2013, no credit is given for Plan Credit Years in which fewer than 500 hours are worked. • *Benefit Units:* Commencing August 1, 1975, a participant who works at least 500 hours in a Plan Credit Year receives 1/10 of a Benefit Unit for each 100 hours of work up to maximum of one Benefit Unit for 1,000 hours or more. For each Plan Credit Year between period August 1, 1980 through August 1, 1986, a participant may earn an additional 1/2 Benefit Unit if he or she works at least 1,750 hours or more in a given Plan Credit Year.
Break in Service Rules	• *One Year Break:* A participant incurs a One Year Break in Service if he or she fails to work at least 435 hours (500 hours after July 31, 2013) in a Plan Credit Year. • *Permanent Break:* A nonvested participant incurs a Permanent Break in Service if the number of consecutive One Year Breaks in Service is at least five and it equals or exceeds the number of full years of Credited Service previously accumulated. At this time, all the accumulated Credited Service and Benefit Units are canceled.
Participation Rules	• *Participation:* An employee becomes a "Participant" on the August 1 or February 1 next following a twelve-month period during which he or she worked at least 435 hours (500 hours after July 31, 2013) in Covered Employment. • *Termination of Participation:* A participant who incurs a One Year Break in Service ceases to be a Participant as of the last day of the Plan Credit Year which constituted the One Year Break in Service unless he or she has retired or attained vested rights. • *Separation from Employment:* A participant is deemed to be separated from employment at the end of any two consecutive Plan Credit Year period in which he or she does not work at least 435 hours (500 hours after July 31, 2013) in Covered Employment in at least one of the two Plan Credit Years. The monthly amount payable for Benefit Units (or contributions) earned before the last separation from employment is frozen at the then current benefit level.
Changes in Plan Provisions	There were no changes in plan provisions reflected in this actuarial valuation. The following changes were adopted or effective after May 31, 2019 and will be recognized in subsequent valuations: • Effective August 1, 2019, the benefit accrual rate was increased from 2.3% to 3.3% of benefit contributions. • A supplemental check of $500 was paid in December 2019 to those in pay status who are over age 70. • A supplemental check of $500 will be paid in December 2020 to retirees who have been in good standing with the union for the preceding twelve months.

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