Sheet Metal Workers' National Pension Fund

Actuarial Certification of Plan Status under IRC Section 432

As of January 1, 2021

Segal

101 North Wacker Drive, Suite 500
Chicago, IL 60606-1724
segalco.com
T 312.984.8500

March 31, 2021

Board of Trustees
Sheet Metal Workers' National Pension Fund
3180 Fairview Park Drive, Suite 400
Falls Church, Virginia 22042

Dear Trustees:

As required by ERISA Section 305 and Internal Revenue Code (IRC) Section 432, we have completed the Plan's actuarial status certification as of January 1, 2021 in accordance with the Multiemployer Pension Reform Act of 2014 (MPRA). The attached exhibits outline the projections performed and the results of the various tests required by the statute. These projections have been prepared based on the Actuarial Valuation as of January 1, 2020 and in accordance with generally accepted actuarial principles and practices and a current understanding of the law. The actuarial calculations were completed under the supervision of Daniel V. Ciner, MAAA, Enrolled Actuary.

This certification does not reflect the enactment of the American Rescue Plan Act of 2021 (ARPA) on March 11. We anticipate clarification of ARPA relief provisions based on regulations to be issued by the IRS and the Pension Benefit Guaranty Corporation. Decisions that the Trustees may make to elect options available to them that might affect the Plan's "zone" status and minimum funding requirements for the current and future years may be reflected in a revised or future actuarial valuation.

As of January 1, 2021, the Plan is in endangered status. In addition, the Plan is not projected to be in critical status for any of the succeeding five plan years.

This certification notifies the IRS that the Plan is making the scheduled progress in meeting the requirements of its funding improvement plan, based on a projection of the Plan's funding metrics. This certification is being filed with the Internal Revenue Service, pursuant to ERISA section 305(b)(3) and IRC section 432(b)(3).

Segal does not practice law and, therefore, cannot and does not provide legal advice. Any statutory interpretation on which the certification is based reflects Segal's understanding as an actuarial firm. Due to the complexity of the statute and the significance of its ramifications, Segal recommends that the Board of Trustees consult with legal counsel when making any decisions regarding compliance with ERISA and the Internal Revenue Code.

A summary of the key results of this certification are as follows:

		2021
Certified Zone Status		***Endangered***
Scheduled Progress of Funding Improvement Plan		Meeting
Funded Percentage:	• Actuarial value of assets (AVA)	$6,171,255,699
	• Unit credit accrued liability	8,188,306,907
	• Funded percentage	**75.3%**
Funding Standard Account Projections (reflecting amortization extension):	• Credit balance with extension as of the end of prior year	$755,131,660
	• Years to projected funding deficiency (15-year projection)	No deficiency projected

We look forward to reviewing this certification with you at your next meeting and to answering any questions you may have. We are available to assist the Trustees in communicating this information to plan stakeholders as well as in reviewing the Funding Improvement Plan as required.

Sincerely,

Segal

By:

David A. Dean, MAAA, EA
Senior Vice President

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

cc: Ms. Lori Wood
Tearyn Loving, Esq.
Mr. Tim Myers
Ms. Debbie Elkins
Jonathan P. Scarpa
Matthew C. Pavesi

March 31, 2021

Internal Revenue Service
Employee Plans Compliance Unit
Group 7602 (TEGE:EP:EPCU)
230 S. Dearborn Street
Room 1700 - 17th Floor
Chicago, IL 60604

To Whom It May Concern:

As required by ERISA Section 305 and the Internal Revenue Code (IRC) Section 432, we have completed the actuarial status certification as of January 1, 2021 for the following plan:

Name of Plan:	Sheet Metal Workers' National Pension Fund
Plan number:	EIN 52-6112463 / PN 001
Plan sponsor:	Board of Trustees, Sheet Metal Workers' National Pension Fund
Address:	3180 Fairview Park Drive, Suite 400 Falls Church, Virginia 22042
Phone number:	703.739.7000

As of January 1, 2021, the Plan is in endangered status. In addition, the Plan is not projected to be in critical status for any of the succeeding five plan years. This certification also notifies the IRS that the Plan is making the scheduled progress in meeting the requirements of its funding improvement plan, based on a projection of the Plan's funding metrics.

This certification does not reflect the enactment of the American Rescue Plan Act of 2021 (ARPA) on March 11. We anticipate clarification of ARPA relief provisions based on regulations to be issued by the IRS and the Pension Benefit Guaranty Corporation. Decisions that the Trustees may make to elect options available to them that might affect the Plan's "zone" status and minimum funding requirements for the current and future years may be reflected in a revised or future actuarial valuation.

Segal
101 North Wacker Drive, Suite 500
Chicago, IL 60606-1724
Phone number: 312.984.8500

Sincerely,

Daniel V. Ciner, MAAA
Senior Vice President and Actuary
Enrolled Actuary No. 20-05773

Actuarial status certification as of January 1, 2021 under IRC Section 432

March 31, 2021

Illustration Supporting Actuarial Certification of Status (Schedule MB, line 4b)

This is to certify that Segal has prepared an actuarial status certification under Internal Revenue Code Section 432 for the Sheet Metal Workers' National Pension Fund as of January 1, 2021 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 and compliance requirements under federal law. This certification 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 certification 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); differences in statutory interpretation and changes in plan provisions or applicable law.

This certification is based on the January 1, 2020 actuarial valuation, dated September 29, 2020. This certification reflects the changes in the law made by the Multiemployer Pension Reform Act of 2014 (MPRA). Additional assumptions required for the projections (including those under MPRA), and sources of financial information used are summarized in Exhibit VII.

Segal does not practice law and, therefore, cannot and does not provide legal advice. Any statutory interpretation on which this certification is based reflects Segal's understanding as an actuarial firm.

This certification was based on the assumption that the Plan was qualified as a multiemployer plan for the year.

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 certification is complete and accurate. As required by IRC Section 432(b)(3)(B)(iii), the projected industry activity is based on information provided by the plan sponsor. In my opinion, the projections are based on reasonable actuarial estimates, assumptions and methods that (other than projected industry activity) offer my best estimate of anticipated experience under the Plan.

Daniel V. Ciner, MAAA	
EA#	20-05773
Title	Senior Vice President and Actuary
Email	**dciner@segalco.com**

Actuarial Status Certification under IRC Section 432

Certificate Contents

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Exhibit I

Status Determination as of January 1, 2021

Status	Condition	Component Result	Final Result
Critical Status:			
	I. Initial critical status tests (not applicable since Plan previously met special emergence under IRC Section 432(e)(4)(B)(ii)(I)):		
	C1. A funding deficiency is projected in four years (ignoring any amortization extensions)?	No	N/A
	C2. (a) A funding deficiency is projected in five years (ignoring any amortization extensions),	No	
	(b) AND the present value of vested benefits for non-actives is more than present value of vested benefits for actives,	N/A	
	(c) AND the normal cost plus interest on unfunded actuarial accrued liability (unit credit basis) is greater than contributions for current year?	N/A	N/A
	C3. (a) A funding deficiency is projected in five years (ignoring any amortization extensions),	No	
	(b) AND the funded percentage is less than 65%?	N/A	N/A
	C4. (a) The funded percentage is less than 65%,	No	
	(b) AND the present value of assets plus contributions is less than the present value of benefit payments and administrative expenses over seven years?	N/A	N/A
	C5. The present value of assets plus contributions is less than the present value of benefit payments and administrative expenses over five years?	No	N/A
	II. Test special emergence rules into critical status		
	C6. Override condition: If satisfies (C6(a)) and (C6(b)), then ignore tests (C1) – (C5) and only apply test (C6(c))		
	(a) Had elected an amortization extension under the provisions of IRC Section 431(d)(1),	Yes	Yes
	(b) Previously emerged from critical status because:		
	(i) there was not projected to be an accumulated funding deficiency for the plan year or any of the nine succeeding plan years, without regard to the use of the shortfall method but taking into account any automatic extension of amortization periods up to five years under IRC Section 431(d)(1),	Yes	

Actuarial Status Certification under IRC Section 432

Status	Condition	Component Result	Final Result
	(ii) AND was not projected to become insolvent for the current year or any of the 30 succeeding plan years,	Yes	Yes
	(c) HOWEVER		
	(i) EITHER there is a projected funding deficiency for the plan year or any of the nine succeeding plan years, without regard to the use of the shortfall method but taking into account any extension of amortization periods under IRC Section 431(d),	No	
	(ii) OR the Plan is projected to become insolvent for the current or any of the 30 succeeding plan years?	No	No
	In Critical Status? (If any of (C1) through (C5) is Yes then Yes, unless (C6(a)) and (C6(b)) are Yes, then only if (C6(c)) is Yes)		**No**
	III. Determination whether plan is projected to be in critical status in any of the succeeding five plan years:		
	C7. (a) Is not in critical status,	Yes	
	(b) AND is projected to be in critical status in any of the next five years?	No	No
	In Critical Status in any of the five succeeding plan years?		**No**
Endangered Status:			
	E1. (a) Is not in critical status,	Yes	
	(b) AND the funded percentage is less than 80%?	Yes	Yes
	E2. (a) Is not in critical status,	Yes	
	(b) AND a funding deficiency is projected in seven years?	No	No
	In Endangered Status? (Yes when either (E1) or (E2) is Yes)		**Yes**
	In Seriously Endangered Status? (Yes when BOTH (E1) and (E2) are Yes)		**No**
Neither Critical Status Nor Endangered Status			
	Neither Critical nor Endangered Status?		**No**

Actuarial Status Certification under IRC Section 432

Exhibit II
Summary of Actuarial Valuation Projections

The actuarial factors as of January 1, 2021 (based on projections from the January 1, 2020 valuation certificate):

I. Financial Information			
1. Market value of assets*			$6,469,629,066
2. Actuarial value of assets*			6,171,255,699
3. Reasonably anticipated contributions			
a. Upcoming year			475,633,998
b. Present value for the next five years			1,996,523,927
c. Present value for the next seven years			2,613,715,300
4. Projected benefit payments			562,738,104
5. Projected administrative expenses (beginning of year)			14,715,415
II. Liabilities			
1. Present value of vested benefits for active participants			2,198,632,925
2. Present value of vested benefits for non-active participants			5,600,766,687
3. Total unit credit accrued liability			8,188,306,907
4. Present value of payments	**Benefit Payments**	**Administrative Expenses**	**Total**
a. Next five years	$2,515,281,225	$66,423,697	$2,581,704,922
b. Next seven years	3,382,938,540	88,478,673	3,471,417,213
5. Unit credit normal cost plus expenses			155,225,475
III. Funded Percentage (I.2)/(II.3)			75.3%
IV. Funding Standard Account		**Without amortization extension**	**With amortization extension**
1. Credit Balance as of the end of prior year		$65,034,311	$755,131,660
2. Years to projected funding deficiency		N/A	N/A
V. Years to Projected Insolvency			N/A
VI. Year Projected to be in Critical Status, if within next five years			N/A

* Excluding receivable withdrawal liability payments of $10,623,261.

Exhibit III
Funding Standard Account Projections

The table below presents the Funding Standard Account Projections for the Plan Years beginning January 1.

With Amortization Extension under IRC Section 431(d)

Year Beginning January 1,

		2020	2021	2022	2023	2024	2025	2026	2027
1.	Credit balance at beginning of year	$597,481,991	$755,131,660	$801,036,286	$920,332,251	$1,050,514,200	$1,201,985,698	$1,369,700,881	$1,526,086,950
2.	Interest on (1)	44,811,149	56,634,874	60,077,721	69,024,919	78,788,565	90,148,927	102,727,566	114,456,521
3.	Normal cost	85,983,740	140,510,060	105,280,967	113,551,616	113,269,315	112,900,714	112,573,381	112,158,638
4.	Administrative expenses	14,426,877	14,715,415	15,009,723	15,309,917	15,616,115	15,928,437	16,247,006	16,571,946
5.	Net amortization charges	330,673,521	313,798,266	283,664,686	273,290,321	262,544,654	258,058,307	280,306,841	240,562,752
6.	Interest on (3), (4) and (5)	32,331,310	35,176,781	30,296,653	30,161,389	29,357,256	29,016,559	30,684,542	27,697,000
7.	Expected contributions	555,425,511	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998
8.	Interest on (7)	20,828,457	17,836,275	17,836,275	17,836,275	17,836,275	17,836,275	17,836,275	17,836,275
9.	Credit balance at end of year: (1) + (2) – (3) – (4) – (5) – (6) + (7) + (8)	$755,131,660	$801,036,286	$920,332,251	$1,050,514,200	$1,201,985,698	$1,369,700,881	$1,526,086,950	$1,737,023,408

		2028	2029	2030	2031	2032	2033	2034	2035
1.	Credit balance at beginning of year	$1,737,023,408	$1,974,726,641	$2,219,961,328	$2,511,796,425	$2,863,255,797	$3,265,199,899	$3,701,927,151	$4,162,774,251
2.	Interest on (1)	130,276,756	148,104,498	166,497,100	188,384,732	214,744,185	244,889,992	277,644,536	312,208,069
3.	Normal cost	111,721,174	111,456,741	111,438,139	111,223,487	111,082,144	110,869,711	110,861,983	110,971,670
4.	Administrative expenses	16,903,385	17,241,453	17,586,282	17,938,008	18,296,768	18,662,703	19,035,957	19,416,676
5.	Net amortization charges	230,485,949	239,990,256	213,424,208	178,183,280	155,523,744	151,056,436	158,723,185	135,311,667
6.	Interest on (3), (4) and (5)	26,933,288	27,651,634	25,683,647	23,050,858	21,367,699	21,044,164	21,646,584	19,927,501
7.	Expected contributions	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998
8.	Interest on (7)	17,836,275	17,836,275	17,836,275	17,836,275	17,836,275	17,836,275	17,836,275	17,836,275
9.	Credit balance at end of year: (1) + (2) – (3) – (4) – (5) – (6) + (7) + (8)	$1,974,726,641	$2,219,961,328	$2,511,796,425	$2,863,255,797	$3,265,199,899	$3,701,927,151	$4,162,774,251	$4,682,825,079

Exhibit III (continued)
Funding Standard Account Projections

Without Amortization Extension under IRC Section 431(d)

	Year Beginning January 1,					
	2020	**2021**	**2022**	**2023**	**2024**	**2025**
1. Credit balance at beginning of year	($167,015,632)	$65,034,311	$195,500,419	$393,167,013	$554,739,992	$729,637,589
2. Interest on (1)	(12,526,172)	4,877,573	14,662,531	29,487,526	41,605,499	54,722,819
3. Normal cost	85,983,740	140,510,060	105,280,967	113,551,616	113,269,315	112,900,714
4. Administrative expenses	14,426,877	14,715,415	15,009,723	15,309,917	15,616,115	15,928,437
5. Net amortization charges	208,126,920	186,990,096	168,515,088	207,310,392	206,164,035	212,378,718
6. Interest on (3), (4) and (5)	23,140,315	25,666,168	21,660,433	25,212,894	25,128,710	25,590,590
7. Expected contributions	555,425,511	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998
8. Interest on (7)	20,828,457	17,836,275	17,836,275	17,836,275	17,836,275	17,836,275
9. Credit balance at end of year: (1) + (2) – (3) – (4) – (5) – (6) + (7) + (8)	$65,034,311	$195,500,419	$393,167,013	$554,739,992	$729,637,589	$911,032,222

Exhibit IV

Funding Standard Account – Projected Bases Assumed Established after January 1, 2020

Schedule of Funding Standard Account Bases

Type of Base	Date Established	Base Established	Amortization Period	Amortization Payment
Experience gain	01/01/2021	($105,382,806)	15	($11,105,606)
Experience gain	01/01/2022	(105,359,619)	15	(11,103,163)
Experience gain	01/01/2023	(41,727,053)	15	(4,397,342)
Experience gain	01/01/2024	(156,573,996)	15	(16,500,312)
Experience gain	01/01/2025	(51,042,624)	15	(5,379,049)

Exhibit V
Solvency Projections

The table below presents the projected Market Value of Assets for the Plan Years beginning January 1, 2020 through 2050.

	Year Beginning January 1,						
	2021	2022	2023	2024	2025	2026	2027
1. Market Value at beginning of year	$6,469,629,066	$6,848,661,665	$7,235,331,533	$7,630,231,435	$8,034,042,114	$8,447,886,215	$8,872,997,171
2. Contributions	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998
3. Benefit payments	562,738,104	582,471,882	602,180,313	621,821,327	641,018,081	659,744,820	678,230,822
4. Administrative expenses	15,300,000	15,606,000	15,918,120	16,236,482	16,561,212	16,892,436	17,230,285
5. Interest earnings	481,436,705	509,113,752	537,364,337	566,234,490	595,789,396	626,114,214	657,292,849
6. Market Value at end of year: (1)+(2)-(3)-(4)+(5)	$6,848,661,665	$7,235,331,533	$7,630,231,435	$8,034,042,114	$8,447,886,215	$8,872,997,171	$9,310,462,911
	2028	2029	2030	2031	2032	2033	2034
1. Market Value at beginning of year	$9,310,462,911	$9,761,842,661	$10,229,679,240	$10,716,451,804	$11,223,938,852	$11,754,716,190	$12,311,094,104
2. Contributions	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998
3. Benefit payments	696,100,338	712,517,909	727,728,576	742,586,747	756,452,359	769,767,389	781,939,899
4. Administrative expenses	17,574,891	17,926,389	18,284,917	18,650,615	19,023,627	19,404,100	19,792,182
5. Interest earnings	689,420,981	722,646,879	757,152,059	793,090,412	830,619,326	869,915,405	911,174,113
6. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	$9,761,842,661	$10,229,679,240	$10,716,451,804	$11,223,938,852	$11,754,716,190	$12,311,094,104	$12,896,170,134

Exhibit V (continued)
Solvency Projections

Year Beginning January 1,

	2035	2036	2037	2038	2039	2040	2041
1. Market Value at beginning of year	$12,896,170,134	$13,512,976,045	$14,164,275,489	$14,853,376,075	$15,583,654,970	$16,358,842,086	$17,182,910,060
2. Contributions	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998
3. Benefit payments	793,257,054	804,196,285	814,432,919	824,138,858	833,218,073	841,706,078	849,868,733
4. Administrative expenses	20,188,026	20,591,787	21,003,623	21,423,695	21,852,169	22,289,212	22,734,996
5. Interest earnings	954,616,993	1,000,453,518	1,048,903,130	1,100,207,450	1,154,623,360	1,212,429,266	1,273,913,140
6. Market Value at end of year: (1)+(2)-(3)-(4)+(5)	$13,512,976,045	$14,164,275,489	$14,853,376,075	$15,583,654,970	$16,358,842,086	$17,182,910,060	$18,059,853,469
	2042	**2043**	**2044**	**2045**	**2046**	**2047**	**2048**
1. Market Value at beginning of year	$18,059,853,469	$18,994,250,783	$19,990,521,073	$21,054,118,547	$22,191,047,687	$23,407,096,053	$24,708,906,420
2. Contributions	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998
3. Benefit payments	857,431,841	864,879,835	871,534,263	877,258,835	882,696,502	887,441,148	891,844,483
4. Administrative expenses	23,189,696	23,653,490	24,126,560	24,609,091	25,101,273	25,603,298	26,115,364
5. Interest earnings	1,339,384,853	1,409,169,617	1,483,624,299	1,563,163,068	1,648,212,143	1,739,220,815	1,836,674,095
6. Market Value at end of year: (1)+(2)+(3)-(4)-(5)+(6)	$18,994,250,783	$19,990,521,073	$21,054,118,547	$22,191,047,687	$23,407,096,053	$24,708,906,420	$26,103,254,666

Actuarial Status Certification under IRC Section 432

Exhibit V (continued)
Solvency Projections

	Year Beginning January 1,					
	2049	**2050**	**2051**	**2052**	**2053**	**2054**
1. Market Value at beginning of year	$26,103,254,666	$27,597,950,418	$29,201,651,459	$30,922,515,191	$32,769,310,583	$34,751,464,030
2. Contributions	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998	475,633,998
3. Benefit payments	895,399,746	897,853,784	900,314,548	902,782,056	905,256,327	907,737,379
4. Administrative expenses	26,637,671	27,170,424	27,713,832	28,268,109	28,833,471	29,410,140
5. Interest earnings	1,941,099,171	2,053,091,251	2,173,258,114	2,302,211,559	2,440,609,247	2,589,158,151
6. Market Value at end of year: (1)+(2)-(3)-(4)+(5)	$27,597,950,418	$29,201,651,459	$30,922,515,191	$32,769,310,583	$34,751,464,030	$36,879,108,660
	2055	**2056**				
1. Market Value at beginning of year	$36,879,108,660	$39,163,137,332				
2. Contributions	475,633,998	475,633,998				
3. Benefit payments	910,225,231	912,719,902				
4. Administrative expenses	29,998,343	30,598,310				
5. Interest earnings	2,748,618,248	2,919,806,494				
6. Market Value at end of year: (1)+(2)-(3)-(4)+(5)	$39,163,137,332	$41,615,259,612				

Exhibit VI

Scheduled Progress of the Funding Improvement Plan - Projections of Benchmarks

The Funding Improvement Plan indicates that scheduled progress is met if a projection of the funding metrics used for the benchmarks demonstrates that they are projected to be met. The benchmarks as stated in the Funding Improvement Plan are that (A) the funded percentage as of the close of the funding improvement period equals or exceeds the sum of (i) the funded percentage as of the beginning of the Plan Year beginning 2015, plus (ii) 33 percent of the difference between 100 percent and that percentage, and (B) avoiding an accumulated funding deficiency for the last year of the funding improvement period (taking into account the Plan's extension of its amortization periods under ERISA Section 304(d)).

A projection based on the actuarial assumptions and methods described in Exhibit VII of this certification indicates that the Plan is meeting scheduled progress.

		Year Beginning January 1,				
		2021	**2022**	**2023**	**2024**	**2025**
1.	Credit balance with extension at end of year	$803,913,127	$933,484,837	$1,077,858,363	$1,244,596,596	$1,428,737,609
2.	Actuarial value of assets at end of year	$6,637,415,782	$7,063,023,141	$7,619,119,146	$8,090,684,265	$8,526,321,764
3.	Present value of accumulated benefit at end of year	$8,370,906,483	$8,510,580,829	$8,650,520,406	$8,780,263,636	$8,899,410,641
4.	Funded percentage at end of year	79.2%	82.9%	88.0%	92.1%	95.8%
		2026	**2027**			
1.	Credit balance/ with extension at end of year	$1,602,793,955	$1,832,741,813			
2.	Actuarial value of assets at end of year	$8,974,860,622	$9,437,511,357			
3.	Present value of accumulated benefit at end of year	$9,007,700,287	$9,104,470,728			
4.	Funded percentage at end of year	99.6%	103.6%			

Exhibit VI

Actuarial Assumptions and Methodology

The actuarial assumptions and plan of benefits are as used in the January 1, 2020 actuarial valuation certificate, dated September 29, 2020, except as specifically described below. We also assumed that experience would emerge as projected, except as described below. The calculations are based on a current understanding of the requirements of ERISA Section 305 and IRC Section 432.

Plan of Benefits:	• The Applicable Percentage under the Plan's benefit formula is 1.00% for 2021, and is projected to be 0.75% for 2022, based on the preliminary investment return for the 2020 Plan Year.
Contribution Rates:	For purposes of the scheduled progress projections, contributions for employers that adopted an Alternative Option under the Funding Improvement Plan are assumed to increase in 2021 and 2022 (2% for the First Alternative, 1% for the Second Alternative), based on the required increases in contribution rates under the Funding Improvement Plan.
Asset Information:	The financial information as of December 31, 2020, including contribution income, benefit payments and administrative expenses for the Plan Year ended December 31, 2020, was based on an unaudited financial statement provided by the Fund Office on February 12, 2021. For projections after that date, the assumed administrative expenses were increased by 2% per year thereafter from the assumption used for the January 1, 2020 actuarial valuation. The benefit payments were projected based on the January 1, 2020 actuarial valuation. The projected net investment return was assumed to be 7.50% of the average market value of assets for future years. Any resulting investment gains or losses due to the operation of the asset valuation method are amortized over 15 years in the Funding Standard Account.
Projected Industry Activity:	As required by Internal Revenue Code Section 432, assumptions with respect to projected industry activity are based on information provided by the Plan Sponsor. Based on this information, for 2021 an all future years, total contribution hours of 90 million are assumed (approximately the number of active participants as of December 31 2013, 54,282, and 1,650 hours per active participant per year).

Actuarial Status Certification under IRC Section 432

Future Normal Costs:	Based on the assumed industry activity, we have determined the Normal Cost based on an open group forecast assuming new entrants have a similar demographic mix to recent entrants to the Plan. The Normal Cost for the 2021 Plan Year recognizes an Applicable Percentage (benefit accrual multiplier) of 1.00%. The Normal Cost for the 2022 Plan Year recognizes an Applicable Percentage (benefit accrual multiplier) of 0.75%, based on the preliminary rate of return for the 2020 Plan Year. Normal Costs for 2023 and thereafter were adjusted to reflect the long-term average expected Applicable Percentage of 0.81%. This average is based on the assumed probability of three-year average market investment returns corresponding to the ranges in the Plan's variable benefit accrual formula. For this purpose, market investment returns after 2020 were based upon stochastic projections using the Plan's target investment allocation and capital market assumptions provided by the Plan's Investment Manager in 2020.
Elections under the Preservation of Access to Care for Medicare Beneficiaries and Pension Relief Act of 2010:	This status certification reflects the elections made by the Board of Trustees as permitted under the Preservation of Access to Care for Medicare Beneficiaries and Pension Relief Act of 2010. The Plan Actuary certified to the Plan Sponsor that the Plan was projected to have sufficient assets to timely pay expected benefits and anticipated expenditures over the amortization period, taking into account the changes in the funding standard account elected.
Amortization Extension:	This status certification recognizes an extension of the amortization charge bases as of January 1, 2009, as permitted under Internal Revenue Code Section 431(d)(1).
Demographic Loss:	A demographic loss was created to account for greater than expected benefit accruals in 2020 due to the greater than expected contributions received.

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Deterministic cost projections are based on a proprietary forecasting model. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Technical issues

Segal does not practice law and, therefore, cannot and does not provide legal advice. Any statutory interpretation on which the certification is based reflects Segal's understanding as an actuarial firm. Due to the complexity of the statute and the significance of its ramifications, Segal recommends that the Board of Trustees consult with legal counsel when making any decisions regarding compliance with ERISA and the Internal Revenue Code.

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