

Taxpayer,

Per your request, attached is a table that shows the depreciation percent good factors (Expectancy Life Factors) that Pritchard & Abbott, Inc., will be using for tax year **2022**, for properties having various service lives. These Expectancy Life Factors address only the *physical deterioration* component of depreciation. Other components of depreciation (functional and/or economic obsolescence), to the extent they can be identified and quantified, are addressed through analysis of various property-specific characteristics. One such example would be Utilization or Inutility (throughput relative to capacity) that can act as a mass-appraisal proxy in place of more rigorous methods that look to rate of return or "Income shortfall" metrics.

Please note:

- The attached Expectancy Life table is generic regarding tax year and age. To use this table, look up the expectancy life factor (percent good) corresponding to the age of the equipment in years, instead of using a specific installation year. The age is shown in ascending order in the 2nd column. Longer assumed service lives result in higher percent good factors (i.e., less depreciation), age being equal. For any percent good factor in this table that falls below a floor you believe is appropriate, just use the floor factor instead.
 - Example: Equipment that's 10 years old as of the appraisal date with an assumed service life of 20 years has a percent good factor of 0.6834 (68.34%), equal to 31.66% accumulated depreciation. If the same type of equipment is 19 years old, the percent good factor is 0.0934 (9.34%), equal to 90.66% accumulated depreciation. If you don't want to use anything less than 10% floor (just as an example), then use 0.1000 factor instead of 0.0934.
- These percent good factors are based on an assumed 8% rate of return in the expectancy life formula. This rate of return is one that's expected over the depreciable life of the property and doesn't represent any particular property's actual rate of return for any particular year.

Pritchard & Abbott, Inc., does not publish or otherwise provide a schedule of RCN values or service lives corresponding to specific categories or types of property. We generally develop our own RCN schedules and service life guides for use with the specialized industrial and/or oilfield personal property equipment and facilities that we appraise, which may or may not correspond with the schedules used by the appraisal district locally for general business personal property appraisal. We do trend past historical or original costs when appropriate to convert them to current vintage using index data from a variety of sources such as Marshall & Swift, Handy-Whitman, Chemical Engineering Magazine, Oil and Gas Journal, etc. We do not combine trend factors with depreciation factors to form "composite" factors of any kind. We may combine several depreciation factors (say, for all forms of obsolescence) to form a composite "service" factor on selected reports.

Regards,

Karen E. Khan, PE
Director of Industrial and Utility Appraisals

Expectancy Life (% Good) Factors
Tax Year 2022
10.0% Floor Depreciation*

8.0% Rate of Return*

Year Installed*	Age (yrs)	Service Life (yrs)										
		3	5	7	8	10	12	15	20	23	30	35
2021	1	0.6920	0.8295	0.8879	0.9060	0.9310	0.9473	0.9632	0.9781	0.9836	0.9912	0.9942
2020	2	0.3593	0.6455	0.7669	0.8044	0.8564	0.8904	0.9234	0.9545	0.9658	0.9816	0.9879
2019	3	0.1000	0.4466	0.6362	0.6948	0.7759	0.8289	0.8804	0.9291	0.9467	0.9713	0.9812
2018	4	0.1000	0.2319	0.4950	0.5764	0.6889	0.7626	0.8340	0.9015	0.9260	0.9602	0.9738
2017	5	0.1000	0.1000	0.3425	0.4485	0.5950	0.6909	0.7839	0.8718	0.9037	0.9482	0.9660
2016	6	0.1000	0.1000	0.1778	0.3103	0.4936	0.6134	0.7298	0.8397	0.8795	0.9352	0.9574
2015	7	0.1000	0.1000	0.1000	0.1611	0.3841	0.5298	0.6714	0.8050	0.8535	0.9212	0.9482
2014	8	0.1000	0.1000	0.1000	0.1000	0.2658	0.4395	0.6083	0.7676	0.8253	0.9061	0.9383
2013	9	0.1000	0.1000	0.1000	0.1000	0.1380	0.3420	0.5401	0.7271	0.7949	0.8898	0.9275
2012	10	0.1000	0.1000	0.1000	0.1000	0.1000	0.2366	0.4665	0.6834	0.7621	0.8721	0.9159
2011	11	0.1000	0.1000	0.1000	0.1000	0.1000	0.1229	0.3870	0.6363	0.7266	0.8531	0.9034
2010	12	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.3011	0.5853	0.6884	0.8325	0.8899
2009	13	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.2083	0.5303	0.6470	0.8103	0.8753
2008	14	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1082	0.4709	0.6023	0.7862	0.8595
2007	15	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.4067	0.5541	0.7603	0.8424
2006	16	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.3373	0.5020	0.7323	0.8240
2005	17	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.2625	0.4457	0.7021	0.8041
2004	18	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1816	0.3850	0.6694	0.7827
2003	19	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.3194	0.6341	0.7595
2002	20	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.2485	0.5960	0.7344
2001	21	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1719	0.5549	0.7074
2000	22	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.5105	0.6782
1999	23	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.4625	0.6466
1998	24	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.4106	0.6125
1997	25	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.3547	0.5757
1996	26	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.2942	0.5360
1995	27	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.2289	0.4931
1994	28	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1584	0.4467
1993	29	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.3967
1992	30	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.3426
1991	31	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.2842
1990	32	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.2211
1989	33	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1530
1988	34	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000
1987	35	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000
1986	36	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000
1985	37	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000
1984	38	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000
1983	39	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000
1982	40	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000	0.1000

Expectancy Life Formula:
$$\% \text{ Good} = \frac{(1+R)^{SL} - (1+R)^{Age}}{(1+R)^{SL} - 1}$$
, where R = Rate of Return (decimal)
 SL = Service Life (yrs)
 Age = Age (yrs)

Expectancy Life Factor for any particular year is the inverse of allowed percentage depreciation, converted to decimal form. For example, using a 0.80 expectancy life factor (80% Good) is equivalent to allowance of 20% depreciation. Age-life methods of depreciation are based on the principle of remaining useful life of a property and use calculations related to the accrual of funds necessary to replace the non-salvageable portion of the property over a stated period of time assuming a typical rate of return. The fund balance at any point in time represents the cumulative depreciation the subject property has experienced. A greater assumed rate of return implies less depreciation is taking place, because less accrual of funds is needed over that stated time period to build the replacement cost of the assets. These methods relate to the concept of value as measured by the present worth of the future returns from a property's continued use. This concept is appraisal-oriented versus accounting methods used primarily for IRS cost allocation (tax write-off) purposes. For a complete discussion of valuation depreciation, please reference "Engineering Valuation and Depreciation" by Marston, Winfrey and Hempstead.

*This is a generic table of factors applicable to any tax year, whereas figures in "Year Installed" and "Age" columns are relative to current tax year. Different categories of property may have different assumed floor depreciation rates and rates of return.