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1706-10 DAMPER PERFORMANCE TEST ON 795M 26/19 ACCR

OBJECTIVE	<ul style="list-style-type: none">To characterize 1706-10 damper performance on 795M 26/19 ACCR conductor.To confirm 1706-10 damper provides adequate protection to 795M 26/19 ACCR
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COMPONENTS TESTED	ALCOA 1706-10 damper
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PROCEDURE	<p>Damping efficiency was determined according to IEEE STD 664 using the standing wave ratio method and the following conditions:</p> <ul style="list-style-type: none">conductor tension of 25% RBSdamper spaced 50.4" from fixed suspension shoedamper spaced at 70% of the calculated loop length for 15 mph windpeak-to-peak amplitude equal to $3/F$, where "F" is the span vibration frequency in hertzefficiency measurements at all undamped conductor harmonics between 5.87 and 44.05 hertz (equivalent of 2 to 15 mph wind speed)
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REQUIREMENT	Minimum overall damper efficiency of 26% based on the 26% acceptance curve.
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TEST RESULTS 1706-10	WIND SPEED (mph)	DAMPER EFFICIENCY (%)	WIND SPEED (mph)	DAMPER EFFICIENCY (%)	WIND SPEED (mph)	DAMPER EFFICIENCY (%)
OVERALL EFFICIENCY BASED ON 26% CURVE IS 26.2%	6.70	17.23	20.37	29.73	34.79	27.91
	8.40	28.85	22.10	25.00	36.66	34.15
	10.07	34.68	23.89	24.30	38.52	50.65
	11.78	33.33	25.70	29.31	40.39	76.00
	13.47	30.94	27.44	37.61	42.23	74.65
	15.17	48.48	29.31	35.29	44.07	61.76
	16.90	70.79	31.11	29.90		
	18.64	41.61	32.91	31.87		

CALCULATION OF OVERALL EFFICIENCY	The overall efficiency is determined by dividing the measured efficiency at each frequency by the acceptance curve value for that frequency and multiplying by the acceptance curve basis (26.0%).
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CONCLUSIONS	<p>The 1706-10 damper provides adequate damping performance over the range of frequencies equivalent to wind speeds between 2 and 15 mph based on its overall efficiency of 26.2%.</p> <p>The chart on the next page provides a graphical presentation of the 1706-10 damping performance relative to the 26% curves. The 26% curve applies to larger conductors such as the 795M 26/19 ACCR.</p>
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1706-10 DAMPER on 3M 795M 26/19 ACCR
OVERALL EFFICIENCY OF 26.2%

