

GUIDELINES FOR ESTIMATION OF EQUIPMENT NATURAL FREQUENCY

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As part of the resolution of the United States Nuclear Regulatory Commission (USNRC) A-46 issue, the Seismic Qualification Utility Group (SQUG) has produced a Generic Implementation Program (GIP) that resolves certain seismic safety issues in older nuclear power plants through a walkdown of the plant. During this walkdown, for a variety of reasons, the lowest natural frequency of many pieces of equipment must be quickly estimated. For example, very simplified screening criteria can be used if the lowest natural frequency is above about 8 Hz. This paper summarizes a guide book produced to assist the walkdown team in making these frequency estimates. In most cases the frequency estimate can be made on a systematic basis, and requires only a few minutes per piece of equipment.