

FOUNDATION EFFECTS ON INDUCED DRAFT (ID) FAN VIBRATIONS

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ABSTRACT

A number of ID fans at an OPG four–unit power plant suffered chronic high vibrations that required frequent balancing. The largest vibration was always in the horizontal direction on the fan OB (Out Board) bearing. The vibration could be felt on the fan foundation and ground and in the nearby buildings. The fan vibrations also fluctuated greatly between the dry and wet seasons. Throughout the life of the plant, there have been a number of retrofits and modifications on these fans and their foundations. This paper examines these changes and their effects on the fans' dynamics and vibrations.