

Title: Few Lessons from Bam Earthquake for Aseismic Design of Industrial Equipment and Structures and Seismic Re-Evaluation of Existing Systems Paper Abstract: Focus of the paper is the is the strong earthquale activity in the Iranian Bam area. I evaluated the failed industrial equipment in Bam after earthquake. This paper describes few lessons from performed evaluation. The failed equipment in substation closed to bam power plant deeply investigated and fundamentals of earthquake exitation theory revised. The reults of performed evaluation in bam and a/m new theory are described in this paper. The new revised theory to be applied in aseismic design of industrial equipment and structures and re-evaluation of existing systems. It is evident that seismic re-evaluation is a relatively mature process that has been developing for some time, with most countries adopting similar practices, often based on principles which have been developed in the US nuclear industry. Seismic re-evaluation of indiviyual plants is typically carried out at intervals of approximately ten years. Major re-evaluations typically take 2 t0 3 yeatrs to perform at a cost of approximately \$US 1 milion for software alone, although the majority of reevaluation are carried out in less time and at lower cost. The majority of countries are satisfied with the seismic re-evaluations that have been carried out to date, although there are a number of recommendations for improvements based on the experience gained so far. It is recommended that some areas of the seismic re-evaluation process are considered in the future for the mutual benefit of the countries. These include better understanding of the benefits and disadvantages of the various methods emploved in the re-evaluation process, the definition of the scope of plant to be selected for the re-evaluation process, definition of criteria for re-evaluation, and the role and scope of the peer review process and also included are the strenghening of plant, the incorporation of operational and research data/experience into the re-evaluation process and the indentification of areas of new research that could provide benefits and improvements for the re-evaluations process.