PREDICTION OF FAC SUSCEPTIBILITY IN ATUCHA I NPP USING COMSY SOFTWARE

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Keywords: Flow Accelerated Corrosion, NPP, COMSY, software, correlation.

Abstract. Flow Accelerated Corrosion (FAC) is one of the most important damage mechanisms affecting the Balance of Plant (BOP) piping in a typical power plant, as it causes costly outages and repair and may affect plant and personnel safety. An effective FAC program is therefore important to prevent pipe failures. However, the number of FAC susceptible piping components is very large, and it is usually impossible to perform an in-service inspection on each of them during the program outage. Therefore, an accurate predictive method to identify the most FAC susceptible components and piping is needed. In this paper, the use of COMSY software for Atucha I NPP is discussed. The software calculates the estimated inspection dates according to a correlation that depends on the geometry, water chemistry, material chemical composition, temperature and flow rate. The plant information for some of the BOP main lines (Feedwater, Main Steam and Turbine Extractions) has been analyzed and results are presented. Some of the predictions could be observed in the plant through in-service inspections, and they are in line with the influence of the different factors considered in the correlation.