

S04-G3-01 “Retaining Knowledge and Skills within Organization Using Knowledge Management Concepts”

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Abstract

KNOWLEDGE MANAGEMENT

In recent times, the increase of competition experienced in the electric power utility industry has resulted in significant pressure to reduce the costs of power production. One of the methods frequently applied is the reduction of manpower resources. This is often achieved through mechanisms such as early retirement, or other forms of inducement such as attractive separation packages. The end result is the erosion of skills, and the necessary experience base, for effectively utilizing technologies.

Considering the impact of this loss of skills on plant performance and efficiency, a decision was made to investigate alternative methods of knowledge retention. One possible solution to the vexing problem of skills and experience retention was the development of a computer-based Knowledge Management and Diagnostics System which would allow for the permanent capture of experiential skills that could be used to enhance training and the simulation of plant malfunctions.

OBJECTIVES OF THE KNOWLEDGE RETENTION INITIATIVE

The primary objective of the initiative was to capture the experience of highly skilled technologists in a Technology Repository web site that would become a highly focused training resource.

A secondary objective was to develop the diagnostic system to allow for the simulation of fault conditions with appropriate remedial actions and reference to background support material. One of the main requirements of the diagnostic system was that it should not be another so-called “expert system” but would be a “non-robotic” system. In other words, when used for problem solving, it would actually enhance the learning of the user.

The third objective was to have training material, standards, references available that could be used during fault simulations in the expert system.

Forth, was the ability to have an assessment tool available to test staff members if they are able to correct fault situations in various combinations. This feature was planned in accordance

with the NQF level requirements in other words, the user must know the answers of the various questions and must have the opportunity to practice it in advance.

Fifth was that this tool must be able to train people in record time without putting stress onto them.