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Abstract:

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A Proposed Operating Plant Risk Profile

Nova Scotia Power has many operating plants under them which generate power using fossil fuel, hydro, wind and tidal energy. These plants have many equipment in them for which the conditions have to be monitored and an overall health assessment has to be made. The aim of this paper is to analyze the different test results and determine the overall risk analysis of different equipment using condition and criticality of the plants. The risk analysis will give a score on a scale of 1-25 with 25 being the equipment with the highest risk and 1 with the lowest risk. The risk score will help to identify if the equipment is in a good condition or not. The results of the tests performed on the equipment are monitored in the software database, Meridium, used by Nova Scotia Power. The analysis will be performed in an in-built extension of Meridium, called the Policy Manager, which can use the results from the tests performed and execute the determined calculations for the overall risk score. The results of risk analysis can be used by management to estimate the budget for equipment, and by operators for effective troubleshooting. The risk scores will also be plotted in a risk graph which will show the risk score and the number of equipment having the risk score. The risk analysis of operating plants will help to lower the risks associated with the power plants operated by Nova Scotia Power. Conducting it on real time basis will not only help in financial decisions but will be of great help for technical troubleshooting and will also improve the working/health of equipment and over all plant.