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Measuring Occupational Safety Climate and Safety Performance Using the Nordic Safety Climate Questionnaire

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Abstract: This study compared and objectively gauged the safety climate in the manufacturing facilities (high safety performing vs. low safety performing) to identify the most impactful areas to focus to reduce or prevent workplace injuries. In order to accomplish the study objective, we employed the Nordic Safety Climate Questionnaire (NOSACQ-50) consisted of 50 items across seven dimensions. A total of 116 operations employees in the paper laminate manufacturing completed the survey. The two sites were both within the United States and had structured the same operations. The results of the comparisons showed that there was a significant difference in the total scores for the sites. The high performance site had significantly (p<0.0001) higher NOSACQ-50 scores than the underperforming site in all dimensions. The high performing site had the greater safety climate scores in the area of "management safety priority & ability". The underperforming site recorded comparatively lower scores in the areas of "management safety empowerment", "group safety priority", and "worker safety commitment". We provided the recommendations of three focus areas: *Commitment*, *Involvement*, and *Accountability*. The outcome from this study is the intent to apply resources and focus to the appropriate areas in order to make safety improvements at the site. This study may reveal the least amount of resources in the most efficient manner in order to garner the most about of safety performance improvement.

Keywords: Safety Climate, Nordic Safety Climate Questionnaire, Safety Management