LOADING AND SEISMIC ANALYSIS REPORT
FOR DDB ENCLOSURES

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EXECUTIVE SUMMARY

A Numerical Analysis was performed on multiple Aluminum Enclosures to validate the structural integrity during lifting and the integrity during seismic events. For the purpose of this report, Aluminum Enclosures refers to 4 families of enclosure designs and their constituent configurations. There are no explicit structural requirements for this type of device during lifting. However, the correlation to rigging and a “below the hook device” Edge Innovative Solutions has utilized techniques established by the American Society of Mechanical Engineers (ASME) regarding rigging and overhead lifting devices. For seismic events, Telcordia GR 63 is considered as the most applicable standard. This report details the requirements set forth by ASME B30.20, B30.9, and BTH 1, as well as Telcordia GR 63, and the steps taken to verify compliance. These techniques provide a conservative method to determining the safety of this type of device. The analysis proves the Aluminum Enclosures and its constituent parts meet the ASME and Telcordia code and are safe for lifting or installation under the advertised operating conditions.
CONCLUSION

Based on the analysis presented, the enclosures studied meet or exceed the design criteria set out by ASME B30.20, B30.9, and BTH-1 for lifting as well as Telcordia GR 63 for seismic conditions. This conclusion is dependent on the following chart showing the maximum recommended loads and noted assumptions.

Table 2: Tabulation of maximum load based on enclosure size