All DeLong's Facilities	Procedure #: CS-027	Planned Engineered Lifts

Rev 1

1. Purpose:

1.1 The purpose of this procedure is to outline the procedure for lifts exceeding the rated load capacity of cranes/hoists.

2. Responsibility:

2.1 The Environmental Health and Safety (EHS) Manager is the program coordinator, with overall responsibility for the program, including reviewing and updating this plan as necessary.

2.2 The EHS Manager and/or Supervisors are responsible for implementation of this procedure and training of all employees with regard to this procedure.

3. References:

3.1 ASME B30.2-2011 – Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist)

3.2 29 CFR 1910.179 – Overhead and Gantry Cranes

4. Procedure:

4.1 Planned Engineered Lifts:

4.1.1 Lifts in excess of the rated load may be required from time to time on a limited basis for specific purposes. Every planned engineered lift exceeding the rated load shall be treated as a special and separate event. Limitations and planned requirements shall be applicable, as follows:

4.1.1.1 Planned engineered lifts shall be limited to powered cranes having a load rating of 5 tons and above.

4.1.1.2 When planned engineered lifts are made, the load shall not exceed 125% of the crane load rating, except as provided in 4.1.1.4.

4.1.1.3 Planned engineered lifts shall be limited to 2 occurrences on any crane within any continuous 12 month period, except as provided in 4.1.1.4. If greater lift frequency is desired, consideration shall be given to rerating or replacing the crane.

4.1.1.4 The crane manufacturer shall be consulted if the planned engineered lift exceeds 125% of rated load or if the frequency of planned engineered lifts exceeds two during a continuous 12 month period.

4.1.1.5 Each planned engineered lift shall comply with the following requirements:

- A written review of the crane service history shall be prepared, including reference to previous planned engineered lifts, structural repairs, and modifications of original design.
- The design of the structural, mechanical, electrical, pneumatic, and hydraulic components of the crane shall be reviewed by means of applicable calculations for the load to be lifted and approved by the crane manufacturer or a qualified person, in accordance with accepted crane design standards if the load to be lifted exceeds 125% of rated load or if the frequency of planned engineered lifts exceeds 2 during a continuous 12 month period.
- The design of the crane-supporting structure shall be reviewed and approved by a qualified person for conformance to applicable design criteria. The crane support shall be inspected and any deterioration or damage shall be taken into consideration in design calculations for the load to be lifted.
- The crane shall be inspected in accordance with CS-025 4.1.4 prior to making the lift.
- The lift shall be made under controlled conditions under the direction of a designated person in accordance with a previously prepared lift plan. All persons in the area of the crane shall be alerted that the lift is being made.
- The operator shall test the crane at the planned engineered load by lifting the load a short distance and setting the brakes. The lift shall only be continued if the brake stops and holds the load. Any failure to hold the load shall be corrected before proceeding with the lift.
- The crane shall be inspected in accordance with CS-025 4.1.4 after the lift is completed and prior to being used for the lifting of any other load.
- A record of the planned engineered lift, including calculations, inspections, and all distances moved, shall be placed on file.