§ 1919.73 Date of the quadrennial certification and shall conform with the requirements of §1919.71(d).

§ 1919.73 Unit proof test and examination of derricks.

(a) Unit proof tests of derricks shall be carried out at the same times as are specified in §1919.71(a) for cranes.

(b) Unit proof load tests and safe working load ratings shall be based on the design load ratings at the ranges of boom angles or operating radii. Unit proof loads shall exceed the safe working load as follows:

<table>
<thead>
<tr>
<th>Safe working load</th>
<th>Proof Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 20 tons</td>
<td>25 percent in excess.</td>
</tr>
<tr>
<td>20–50 tons</td>
<td>5 tons in excess.</td>
</tr>
<tr>
<td>Over 50 tons</td>
<td>10 percent in excess.</td>
</tr>
</tbody>
</table>

Proof loads shall be applied at the designed maximum and minimum boom angles or radii, or, if this is impracticable, as close to these as practicable. The angles or radii of test shall be stated in the certificate of test. Proof loads shall be swung as far as possible in both directions. The weight of all auxiliary handling devices shall be considered a part of the load.

(c) After satisfactory completion of a unit proof load test, the derrick and all component parts thereof shall be carefully examined in accordance with the requirements of §1919.71(d), as far as applicable.

§ 1919.74 Annual examination of derricks.

(a) In any year in which no quadrennial unit proof test is required, an examination shall be carried out by an accredited person or his authorized representative. Such annual examination shall be made not later than the anniversary date of the quadrennial certification and shall conform in all applicable respect with §1919.71(d).

§ 1919.75 Determination of crane or derrick safe working loads and limitations in absence of manufacturer’s data.

(a) In the event neither manufacturer’s data nor design data on safe working loads (including any applicable limitations) are obtainable, the safe working load rating assigned shall be based on the owner’s information and warranty that those so assigned are correct. Unit test certificates shall state the basis for any such safe working load assignment.

§ 1919.76 Safe working load reduction.

(a) If the operation in which equipment is engaged never utilizes more than a fraction of the safe working load rating, the owner of such equipment may, at his option, have the crane or derrick certified for and operated at a lesser maximum safe working load in keeping with the use and based on radius and other pertinent factors: Provided, however, That the equipment concerned is physically capable of operation at the original load rating and the load reduction is not for the purpose of avoiding correction of any deficiency.

§ 1919.77 Safe working load increase.

(a) In no case shall safe working loads be increased beyond the manufacturer’s ratings or original design limitations unless such increase meets with the manufacturer’s approval. Where the manufacturer’s services are not available, or where the equipment is of foreign manufacture, engineering design analysis by, or acceptable to, the accredited certification agency is required. All necessary structural changes shall be carried out.

§ 1919.78 Nondestructive examinations.

(a) Wherever it is considered necessary by the accredited person or his authorized representative and wherever it is practical and advisable to avoid disassembly of equipment, removal of pins, etc., examination of structure or parts by electronic, ultrasonic, or other nondestructive methods may be carried out, provided that the procedure followed is acceptable to the Assistant Secretary and the person carrying out such examination is accredited or acceptable to the Assistant Secretary for the purpose.

§ 1919.79 Wire rope.

(a) Wire rope and replacement wire rope shall be of the same size, same or better grade, and same construction as originally furnished by the equipment manufacturer or contemplated in the