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POLICY NOTIFICATION

Extended Pressure Equipment Operating Certificates

The North Carolina Administrative Code, Title 13, Chapter 13, Section .0211(l) allows the Bureau Chief to modify the inspection frequency for individual pressure equipment if it is determined that due to unique conditions, the new frequency will provide for the safety attained by the normal inspection frequency. Proper maintenance programs, the condition of the pressure equipment and a thorough baseline inspection help to determine if the equipment is eligible for extended certification. The Bureau Chief of the Boiler Safety Bureau may allow boiler certificate renewal frequencies to go for up to three years. Companies wishing to have their pressure equipment given an extended certification must apply by letter to the Bureau Chief requesting extended certification.

For a first time extended inspection frequency the following shall apply (applies to both brand new and existing equipment):

1. **Base Line Inspection of Drums:** At the outset of an extended inspection frequency, a base line inspection must be conducted of all inside and outside accessible surfaces of both steam and mud drums. The inspected area shall be examined visually by a North Carolina Department of Labor, Boiler Safety Bureau Inspector Supervisor along with a Deputy Inspector for evidence of cracking, discoloration, wear, pitting, bulging, blistering, excessive corrosion and erosion, arc strikes, gouges, dents and other signs of surface irregularities. Areas that are suspect shall be non-destructively examined by a method acceptable to the Inspector Supervisor and Deputy Inspector. For areas which are still suspect after such examination a supplemental (more thorough) examination and engineering evaluation of the discontinuities shall be conducted and discussed with the Bureau Chief of the Boiler Safety or designee. At that time, a decision shall be rendered on the required repair of the discontinuity.
2. **Drum Inspection Mapping and Records:** An inspection grid map shall be constructed for each component detailing precisely the areas found suspect. The grid shall not exceed 4" square. Suspect area shall be described in relevant details and photographs of such areas shall be taken. Records shall be kept and made available to the Deputy Inspector prior to the next required inspection.
3. **Base Line Inspection of Boiler Tubes:** The boiler tubes shall be examined by any NDE method appropriate and to the extent necessary, to give reliable results. Tubes shall be examined for wear, corrosion, erosion, thinning, bulging, blistering, dents, discoloration, cracking and any other surface irregularities. Areas which are suspect shall be noted and discussed with the Inspector Supervisor and Deputy Inspector.

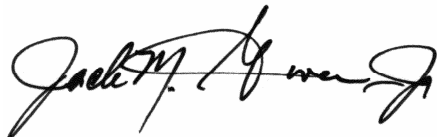
4. **Boiler Tube Inspection Mapping and Record:** Where suspect tubes are identified, the boiler tubes shall be numbered in a logical sequence and the location of any suspect area shall be precisely defined and described in relevant details. Photographs of such areas shall be taken. Records shall be kept and made available to the Inspector Supervisor and Deputy Inspector prior to the next required inspection.
5. **Historical Review:** Particular attention must be paid to the areas determined suspect by previous inspections.

The following process shall be adhered to for subsequent extended certificate inspections:

1. **Scheduling of Inspections:** Approximately two months prior to a scheduled outage in which the boiler may be inspected, and prior to the current certificate expiration, the owner will initiate the inspection process as follows.
 - a) Send a letter addressed to the Bureau Chief requesting the extended certificate.
 - b) Contact the North Carolina Department of Labor, Boiler Safety Bureau at 919-807-2760 and request to speak with an Inspector Supervisor for the purpose of scheduling the inspections required for extending the boiler inspection certificate expiration to 36 months (have the North Carolina identification number available).
 - c) Agree with the Inspector Supervisor and Deputy Inspector on a date to meet for the External Inspection of the boiler and to review reports. The boiler must be operating when the External Inspection is done. Heat recovery boilers with less than 1% capacity factor per year may be excluded from the need to operate during the External Inspection but a letter requesting the exclusion must be sent to the Bureau Chief stating the capacity factor for the year.
2. **External Inspection:** The following reports must be available to the Inspector Supervisor and Deputy Inspector at the External Inspection:
 - a) NBIC R1 forms with job folders (for the past five years for initial inspections and since the previous inspection for renewals).
 - b) A list of major modifications scheduled and those modifications done recently with the NBIC R2 forms.
 - c) VR forms (for the past five years for initial inspections and since the previous inspection for renewals).
 - d) Remaining life analysis (RLA) reports for headers (for the past five years for initial inspections and since the previous inspection for renewals).
 - e) Side elevation drawing of the boiler (8 ½" by 11").
 - f) Steam & Mud drums - Original drum thickness, drawings and P4's if available.
 - g) Copy of the last operating certificate and a copies of the last three years of inspection reports.
 - h) Reports of annual external inspections (by owner's insurance company or the North Carolina Department of Labor).
 - i) Particular attention must be paid to the areas determined suspect by previous inspections.

3. **Internal Inspection:** Following are the required Inspections during the boiler outage:
 - a) Prior to the outage the boiler safety valves must be inspected and operationally tested. For valves that will be repaired during the outage, schedule the Operational Test for soon after the unit comes back up. Upon a successful operational test, the repair organization will affix an updated inspection tag to the valve. Request the Deputy Inspector to return and verify the updated inspection tag.
 - b) Inspect the boiler internally.
 - c) Inspect the steam and mud drums using the following methods:
 - 1) Examine penetrations into the drum wall for cracking: if the nozzles are visible from inside the drum, then a visual examination is satisfactory; otherwise ultrasonically examine the nozzles, from the outside surface, of at least 20% of the drum nozzles.
 - 2) Visually examine inside the heads.
 - 3) Crawl through the drum for a visual examination if possible.
4. **Setting the Certificate Interval:** The Deputy Inspector will inform the owner whether the inspection records and condition of the boiler warrant requesting the Bureau Chief to extend the boiler inspection certificate. If the extended certificate is warranted, the Deputy Inspector will submit his inspection report to the Bureau Chief with the recommendation for a three-year certificate.
5. **Follow-up and Interim Inspections:** External inspections are required six months after the certificate renewal, and then annually thereafter. The external inspections may be performed by the Boiler Safety Bureau, Deputy Inspectors or by the owner's insurance inspector. The results of the inspection must be submitted to the North Carolina Department of Labor, Boiler Safety Bureau on an appropriate inspection form.

Questions regarding the forgoing may be directed to the undersigned.



JACK M. GIVEN, JR.
CHIEF INSPECTOR