



2.1       Sec. 2. [326B.959] BIENNIAL INTERNAL BOILER INSPECTIONS FOR  
2.2 PETROLEUM REFINERIES.

2.3       Subdivision 1. Biennial internal inspection for petroleum refineries. In lieu of the  
2.4 annual internal inspection of high-pressure steam boilers required by section 326B.958,  
2.5 high-pressure steam boilers located at petroleum refineries not using a solid fuel may  
2.6 qualify for biennial internal inspection if the chief boiler inspector has approved a water  
2.7 treatment program for the boilers. The boilers must still be externally inspected at least  
2.8 every 12 months by an inspector holding a current certificate of competency. At the time  
2.9 of the external inspection, the inspector must review the water treatment program and  
2.10 water treatment log from the previous year. The chief engineer of the refinery must meet  
2.11 annually with the chief boiler inspector to review the program and water treatment log,  
2.12 and to discuss any program deficiencies.

2.13       Subd. 2. Water treatment program. (a) To qualify for the biennial internal  
2.14 inspection described in subdivision 1, the water treatment program must be submitted  
2.15 to the chief boiler inspector to initiate the biennial inspection cycle. The chief boiler  
2.16 inspector may approve the program if the following requirements are met:

2.17       (1) a complete internal inspection has been performed on the boiler within the 60  
2.18 days immediately preceding the submission of the water treatment program to the chief  
2.19 boiler inspector. The inspection results must meet the minimum requirements for internal  
2.20 boiler conditions as established in Section I of the ASME boiler and pressure vessel code;

2.21       (2) the program provides limits or ranges established by the boiler manufacturer and  
2.22 the water treatment program representative for boiler water:

2.23       (i) pH;

2.24       (ii) neutralized or unneutralized conductivity;

2.25       (iii) oxygen scavenger;

2.26       (iv) hydroxyl alkalinity; and

2.27       (v) scale inhibitor; and

2.28       (3) if condensate return systems are used, the program provides specific limits  
2.29 or ranges established by the boiler manufacturer and the water treatment program  
2.30 representative for condensate:

2.31       (i) pH; and

2.32       (ii) neutralized or unneutralized conductivity.

2.33       (b) To continue to qualify for the biennial inspection cycle, the following must occur:

2.34       (1) the operating engineer or shift engineer must keep an accurate water treatment  
2.35 log that includes:

3.1 (i) test results for all items identified in paragraph (a), clause (2), in samples of boiler  
3.2 water taken at regular intervals, not to exceed 12-hour operating intervals;

3.3 (ii) test results for dissolved oxygen levels in samples of boiler feedwater, taken at  
3.4 least once every 24 hours;

3.5 (iii) dates and actual times the boiler is out of service;

3.6 (iv) all reasons why the boiler was taken out of service; and

3.7 (v) any test that shows limits or ranges that are outside of the limits or ranges  
3.8 established by the water treatment program, and the corrective action taken to return the  
3.9 water back to the established limit or range;

3.10 (2) the water treatment program representative must also test the boiler water every  
3.11 30 days for the items identified in paragraph (a), clause (2), to ensure operators are  
3.12 accurately performing the required tests and are maintaining levels within the limits or  
3.13 ranges established or are making corrections to achieve those limits or ranges. All test  
3.14 results and corrections performed by the water treatment program representative must  
3.15 be documented in the water treatment log;

3.16 (3) if used, continuous monitoring equipment must be calibrated in accordance  
3.17 with equipment manufacturers' recommendations and documented in the water treatment  
3.18 log. Continuous monitoring equipment results shall not be used for water treatment log  
3.19 entries; and

3.20 (4) if used, condensate return systems must be tested for the items identified in  
3.21 paragraph (a), clause (3), at least every 12 hours. All condensate exceeding these limits  
3.22 shall not be returned to the boiler. Tests performed on condensate must be recorded in  
3.23 the water treatment log.

3.24 (c) The chief boiler inspector or their representative shall be allowed full access to  
3.25 all water treatment logs and test results. This documentation must be made available  
3.26 upon request.

3.27 (d) The chief boiler inspector may revoke approval of the water treatment program  
3.28 and the requirements of section 326B.958 may apply if:

3.29 (1) at the time of the scheduled annual external inspection required in subdivision 1,  
3.30 the inspector determines the water treatment log does not comply with the requirements in  
3.31 paragraph (b);

3.32 (2) at the time of the next scheduled internal inspection, the inspector determines the  
3.33 boiler does not meet the minimum requirements for internal boiler conditions established  
3.34 in Section I of the ASME boiler and pressure vessel code; or

3.35 (3) the petroleum refinery fails to comply with any of the program provisions found  
3.36 in subdivision 1 and paragraphs (a) to (c).

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4.1 (e) Notwithstanding section 326B.93, subdivision 2, the decision of the chief boiler  
4.2 inspector to deny approval under paragraph (a) or to revoke approval under paragraph (d)  
4.3 shall be final and shall not be reviewed by any court or agency. If approval of the water  
4.4 treatment program is revoked under paragraph (d), then the chief boiler inspector shall  
4.5 not approve a water treatment program for that boiler under paragraph (a) until at least  
4.6 three years after the revocation.

4.7 (f) For purposes of this section, a water treatment log is a bound diary or electronic  
4.8 file verified and maintained by the chief engineer of the refinery that documents:

4.9 (1) what tests were performed on the boiler water or condensate;

4.10 (2) who performed tests on the boiler water or condensate;

4.11 (3) the date and time that the tests were performed;

4.12 (4) the results of the tests; and

4.13 (5) any corrective action taken.