4. If the facility fails to demonstrate mercury emissions less than the 14.0 µg/dscm (corrected to seven percent oxygen) average for any 12 consecutive quarter period up until January 3, 2012, the requirements of (a)2iii above shall apply starting January 3, 2012.

5. If the facility demonstrates mercury emissions less than the 14.0 µg/dscm (corrected to seven percent oxygen) average for all rolling 12 consecutive quarter periods up until January 3, 2012 and the facility chooses to continue to comply with this standard after this trial period, the 14.0 µg/dscm limit (corrected to seven percent oxygen) shall apply for every 12 consecutive quarter periods thereafter. Compliance shall be determined using valid stack emission test data from the first quarter after the end of the trial period and using the valid stack emission test data from the 11 quarters immediately preceding the first quarter. Thereafter, the facility shall not revert back to compliance with (a)2iii above.

Amended by R.2004 d.443, effective December 6, 2004 (operative January 3, 2005).
See: 36 N.J.R. 123(a), 36 N.J.R. 5406(a).
Rewrote the section.

7:27-27.5 Hospital/medical/infectious waste (HMIW) incinerators

(a) Each owner or operator of an HMIW incinerator of any size shall operate the incinerator in accordance with (b) below. The owners or operators of co-fired combustors are not subject to the requirements of this section. Any co-fired combustors which are co-fired with municipal solid waste are subject to the mercury emission standards of N.J.A.C. 7:27-27.4 for MSW incinerators.

(b) On and after January 3, 2006, the emissions of mercury from any HMIW incinerator shall not exceed 55.0 µg/dscm corrected to seven percent oxygen.

(c) For any HMIW incinerator existing as of January 3, 2005, compliance with (b) above shall be determined by valid stack emission testing within one year after January 3, 2005 and every five years thereafter.

(d) For any HMIW incinerator constructed, reconstructed, or modified after January 3, 2005, compliance with (b) above shall be determined by valid stack emission testing within 180 calendar days after the start-up of the constructed, reconstructed, or modified incinerator and every five years thereafter.

(e) All stack emission tests shall consist of a minimum of three valid test runs. Compliance with (b) above shall be based on the average of all test runs conducted during stack emission testing. The stack emission testing shall be conducted in accordance with a test protocol approved pursuant to N.J.A.C. 7:27-27.8(a) and (b), except the protocol submittal deadline shall be 90 calendar days prior to the performance of stack emission testing for any HMIW incinerator.

(f) The owner or operator of an HMIW incinerator shall submit to the Department a written plan prior to January 3, 2006, certified pursuant to N.J.A.C. 7:27-1.39, for the purchasing of mercury-free supplies that will be used at the facility and preventing mercury containing waste from being incinerated to the maximum extent feasible. The owner or operator of a HMIW incinerator shall submit to the Department the plan at the following address:

Chief, Bureau of Pre-Construction Permits
Air Quality Permitting Element
Division of Air Quality
Department of Environmental Protection
PO Box 027
Trenton, New Jersey 08625-0027

(g) For supplies for which mercury-free substitutes are not reasonably available, such as fluorescent bulbs, the owner or operator shall send waste from such supplies to an appropriate facility for disposal to prevent the incineration of any such waste in an HMIW incinerator.

New Rule, R.2004 d.443, effective December 6, 2004 (operative January 3, 2005).
See: 36 N.J.R. 123(a), 36 N.J.R. 5406(a).

7:27-27.6 Iron or steel melters

(a) On and after January 3, 2010, each owner or operator of an iron or steel melter of any size shall operate the iron or steel melter in accordance with the provisions specified in either (a)1 or 2 below. Compliance with this standard shall be measured pursuant to (b) below.

1. The emissions of mercury from any iron or steel melter shall not exceed 35.0 mg/ton (milligram of mercury emissions per ton of iron or steel production), based on the annual weighted average of all valid stack emission tests performed for four consecutive quarters weighted for the production each quarter; or

2. The reduction efficiency for control of mercury emissions of the air pollution control apparatus of any iron or steel melter shall be at least 75 percent, based on the annual weighted average of all valid stack emission tests performed for four consecutive quarters weighted for the production each quarter.

(b) On and after January 3, 2006, the owner or operator of an iron or steel melter who is determining compliance with (a)1 above shall conduct stack emission testing every quarter to measure mercury in the gas stream in the stack. On and after January 3, 2006, the owner or operator of an iron or steel melter who is determining compliance with (a)2 above shall conduct stack emission testing every quarter to measure mercury in the gas stream at the inlet of the air pollution control apparatus serving each iron or steel melter, and simultaneously conduct stack emission testing every quarter to measure mercury in the gas stream at the exit of the air pollution control apparatus. There shall be at least three valid stack emission tests per quarter, and at least 45 days between

the stack emission testing performed for a given quarter and the stack emission testing performed for the preceding quarter, unless a shorter period is approved by the Department. The stack emission testing shall be conducted in accordance with a stack emission test protocol approved pursuant to N.J.A.C. 7:27-27.8(a) and (b). Compliance is to be determined by averaging three stack emission test runs per quarter for four consecutive quarters, measuring the net steel production for each quarter, and then calculating annual weighted averages using the quarterly averages and the net steel production.

(c) Notwithstanding the provisions of (b) above, any owner or operator who achieves and maintains compliance with (a) above for eight consecutive quarters for all applicable iron or steel melters located at a facility, may reduce the frequency of stack emission testing from each quarter to stack emission testing performed every fourth quarter after the eighth quarter test in which annual weighted average compliance was determined. However, if the annual stack emission testing fails to demonstrate compliance with (a) above, then the frequency of stack emission testing shall revert to that indicated in (b) above.

(d) The owner or operator of an iron or steel melter shall submit to the Department a written plan prior to January 3, 2006, certified in accordance with N.J.A.C. 7:27-1.39, establishing a mercury in scrap minimization program. The owner or operator shall submit the plan to the Department at the following address:

Chief, Bureau of Pre-Construction Permits
Air Quality Permitting Element
Division of Air Quality
Department of Environmental Protection
PO Box 027
Trenton, New Jersey 08625-0027

(e) Each mercury minimization and source separation plan must include the information specified in the paragraphs below:

1. A materials acquisition program specifying that the iron or steel melter will only purchase mercury free scrap or will purchase scrap only from scrap suppliers that remove accessible mercury switches from the trunks, hoods, and anti-lock braking systems of any automobile bodies contained in the scrap. The owner or operator shall obtain and maintain on site a copy of the procedures used by the scrap supplier for either removing accessible mercury switches, or for purchasing automobile bodies that have had mercury switches removed, as applicable; and

2. Procedures for visual inspection of a representative portion, but not less than 10 percent, of all incoming mercury-free scrap shipments to ensure that the shipments contain only mercury-free scrap, and procedures for visual inspection of a representative portion, but not less than 10 percent, of all other incoming scrap to assist in verifying that mercury has been removed from the scrap.

i. The inspection procedures shall identify the location(s) where inspections are to be performed for each type of shipment. The selected location(s) shall provide a reasonable vantage point, considering worker safety, for visual inspection.

ii. The inspection procedures shall include maintaining records that document each visual inspection and the results of the inspection.

iii. The inspection procedures shall include provisions for rejecting or returning entire or partial scrap shipments from which mercury has not been removed, and limiting purchases from suppliers of mercury-free scrap whose shipments fail to provide mercury-free scrap for more than three inspections in one calendar year.

(f) The owner or operator shall operate at all times according to the mercury minimization and source separation plan to minimize, to the extent practicable, the amount of mercury in the charge material used by the iron or steel melters.

(g) The mercury minimization and source separation plan is subject to Department approval and may be incorporated into a pre-construction or operating permit.

(h) The owner or operator shall maintain a copy of the mercury minimization and source separation plan on site and make it readily available to all plant personnel with materials acquisition or inspection duties.

(i) The owner or operator shall provide a copy of the materials acquisition program described in (e)1 above to each of its scrap suppliers.

New Rule, R.2004 d.443, effective December 6, 2004 (operative January 3, 2005).
See: 36 N.J.R. 123(a), 36 N.J.R. 5406(a).

7:27-27.7 Coal-fired boilers

(a) On and after December 15, 2007, each owner or operator of a coal-fired boiler of any size shall operate the coal-fired boiler in accordance with the provisions specified in either (a)1 or 2 below, except as specified in (d), (e), or (k) below. Compliance with this standard shall be measured pursuant to (b) below.

1. The emissions of mercury from any coal-fired boiler shall not exceed 3.00 mg/MW-hr, based on an annual weighted average of all valid stack emission tests performed for four consecutive quarters weighted by megawatt hours produced each quarter; or

2. The reduction efficiency for control of mercury emissions of the air pollution control apparatus for control of mercury of any coal-fired boiler shall be at least 90 percent, based on the annual weighted average of all valid stack emission tests performed for four consecutive