§ 63.7292 What work practice standards must I meet for fugitive pushing emissions if I have a by-product coke oven battery with horizontal flues?

(a) You must comply with each of the requirements in paragraphs (a)(1) through (4) of this section.

(1) Prepare and operate by a written plan that will eliminate or minimize incomplete coking for each by-product coke oven battery with horizontal flues. You must submit the plan and supporting documentation to the Administrator (or delegated authority) for approval no later than 90 days after completing all observations and measurements required for the study in paragraph (a)(3) of this section or April 14, 2004, whichever is earlier. You must begin operating by the plan requirements by the compliance date that is specified in §63.7283. The written plan must identify minimum flue temperatures for different coking times and a battery-wide minimum acceptable flue temperature for any oven at any coking time.

(2) Submit the written plan and supporting documentation to the Administrator (or delegated authority) for review and approval. Include all data collected during the study described in paragraph (a)(3) of this section. If the Administrator (or delegated authority) disapproves the plan, you must revise the plan as directed by the Administrator (or delegated authority) and submit the amended plan for approval. The Administrator (or delegated authority) may require you to collect and submit additional data. You must operate according to your submitted plan (or submitted amended plan, if any) until the Administrator (or delegated authority) approves your plan.

(3) You must base your written plan on a study that you conduct that meets each of the requirements listed in paragraphs (a)(3)(i) through (x) of this section.

(i) Initiate the study by July 14, 2003. Notify the Administrator (or delegated authority) at least 7 days prior to initiating the study according to the requirements in §63.7340(f).

(ii) Conduct the study under representative operating conditions, including but not limited to the range of moisture content and volatile matter in the coal that is charged.

(iii) Include every oven in the study and observe at least two pushes from each oven.

(iv) For each push observed, measure and record the temperature of every flue within 2 hours before the scheduled pushing time. Document the oven number, date, and time the oven was charged and pushed, and calculate the net coking time.

(v) For each push observed, document the factors to be used to identify pushes that are incompletely coked. These factors must include (but are not limited to): average opacity during the push, average opacity during travel to the quench tower, average of six highest consecutive observations during both push and travel, highest single opacity reading, color of the emissions (especially noting any yellow or brown emissions), presence of excessive smoke during travel to the quench tower, percent volatile matter in the coke, percent volatile matter and percent moisture in the coal that is charged, and the date the oven was last rebuilt or completely relined. Additional documentation may be provided in the form of pictures or videotape of emissions during the push and travel. All opacity observations must be conducted in accordance with the procedures in §63.7334(a)(3) through (7).

(vi) Inspect the inside walls of the oven after each observed push for cool spots as indicated by a flue that is darker than others (the oven walls should be red hot) and record the results.
For each push observed, note where incomplete coking occurs if possible (e.g., coke side end, pusher side end, top, or center of the coke mass). For any push with incomplete coking, investigate and document the probable cause.

Use the documented factors in paragraph (a)(3)(v) of this section to identify pushes that were completely coked and those that were not completely coked. Provide a rationale for the determination based on the documentation of factors observed during the study.

Use only the flue temperature and coking time data for pushes that were completely coked to identify minimum flue temperatures for various coking times. Submit the criteria used to determine complete coking, as well as a table of coking times and corresponding temperatures for complete coking as part of your plan.

Determine the battery-wide minimum acceptable flue temperature for any oven. This temperature will be equal to the lowest temperature that provided complete coking as determined in paragraph (a)(3)(ix) of this section.

You must operate according to the coking times and temperatures in your approved plan and the requirements in paragraphs (a)(4)(i) through (vii) of this section.

Measure and record the percent volatile matter in the coal that is charged.

Measure and record the temperature of all flues on two ovens per day within 2 hours before the scheduled pushing time for each oven. Measure and record the temperature of all flues on each oven at least once each month.

For each oven observed in accordance with paragraph (a)(4)(ii) of this section, record the time each oven is charged and pushed and calculate and record the net coking time. If any measured flue temperature for an oven is below the minimum flue temperature for an oven’s scheduled coking time as established in the written plan, increase the coking time for the oven to the coking time in the written plan for the observed flue temperature before pushing the oven.

If you increased the coking time for any oven in accordance with paragraph (a)(4)(iii) of this section, you must investigate the cause of the low flue temperature and take corrective action to fix the problem. You must continue to measure and record the temperature of all flues for the oven within 2 hours before each scheduled pushing time until the measurements meet the minimum temperature requirements for the increased coking time for two consecutive pushes. If any measured flue temperature for an oven on increased coking time falls below the minimum flue temperature for the increased coking time, as established in the written plan, you must increase the coking time for the oven to the coking time specified in the written plan for the observed flue temperature before pushing the oven. The oven must continue to operate at this coking time (or at a longer coking time if the temperature falls below the minimum allowed for the increased coking time) until the problem has been corrected, and you have confirmed that the corrective action was successful as required by paragraph (a)(4)(v) of this section.

Once the heating problem has been corrected, the oven may be returned to the battery’s normal coking schedule. You must then measure and record the flue temperatures for the oven within 2 hours before the scheduled pushing time for the next two consecutive pushes. If any flue temperature measurement is below the minimum flue temperature for that coking time established in the written plan, repeat the procedures in paragraphs (a)(4)(iii) and (iv) of this section.

If any flue temperature measurement is below the battery-wide minimum acceptable temperature for complete coking established in the written plan for any oven at any coking time, you must remove the oven from service for repairs.

For an oven that has been repaired and returned to service after being removed from service in accordance with paragraph (a)(4)(vii) of this section, you must measure and record the temperatures of all flues for the oven within 2 hours before the first scheduled pushing time. If any flue
temperature measurement is below the minimum flue temperature for the scheduled coking time, as established in the written plan, you must repeat the procedures described in paragraphs (a)(4)(iii) and (iv) of this section.

(viii) For an oven that has been repaired and returned to service after removal from service in accordance with paragraph (a)(4)(vi) of this section, you must report as a deviation to the permitting authority any flue temperature measurement made during the initial coking cycle after return to service that is below the lowest acceptable minimum flue temperature.

(b) As provided in §63.6(g), you may request to use an alternative to the work practice standards in paragraph (a) of this section.

§ 63.7293 What work practice standards must I meet for fugitive pushing emissions if I have a non-recovery coke oven battery?

(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section for each new and existing non-recovery coke oven battery.

(1) You must visually inspect each oven prior to pushing by opening the door damper and observing the bed of coke.

(2) Do not push the oven unless the visual inspection indicates that there is no smoke in the open space above the coke bed and that there is an unobstructed view of the door on the opposite side of the oven.

(b) As provided in §63.6(g), you may request to use an alternative to the work practice standard in paragraph (a) of this section.

§ 63.7294 What work practice standard must I meet for soaking?

(a) For each new and existing by-product coke oven battery, you must prepare and operate at all times according to a written work practice plan for soaking. Each plan must include measures and procedures to:

(1) Train topside workers to identify soaking emissions that require corrective actions.

(2) Damper the oven off the collecting main prior to opening the standpipe cap.

(3) Determine the cause of soaking emissions that do not ignite automatically, including emissions that result from raw coke oven gas leaking from the collecting main through the damper, and emissions that result from incomplete coking.

(4) If soaking emissions are caused by leaks from the collecting main, take corrective actions to eliminate the soaking emissions. Corrective actions may include, but are not limited to, reseating the damper, cleaning the flushing liquor piping, using aspiration, putting the oven back on the collecting main, or igniting the emissions.

(5) If soaking emissions are not caused by leaks from the collecting main, notify a designated responsible party. The responsible party must determine whether the soaking emissions are due to incomplete coking. If incomplete coking is the cause of the soaking emissions, you must put the oven back on the collecting main until it is completely coked or you must ignite the emissions.

(b) As provided in §63.6(g), you may request to use an alternative to the work practice standard in paragraph (a) of this section.

§ 63.7295 What requirements must I meet for quenching?

(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section for each quench tower and backup quench station at a new or existing coke oven battery.

(1) For the quenching of hot coke, you must meet the requirements in paragraph (a)(1)(i) or (ii) of this section.

(i) The concentration of total dissolved solids (TDS) in the water used for quenching must not exceed 1,100 milligrams per liter (mg/L); or

(ii) The sum of the concentrations of benzene, benzo(a)pyrene, and naphthalene in the water used for quenching must not exceed the applicable site-specific limit approved by the permitting authority.

(2) You must use acceptable makeup water, as defined in §63.7352, as makeup water for quenching.

(b) For each quench tower at a new or existing coke oven battery and each backup quench station at a new coke oven battery, you must meet the requirements in paragraph (b) of this section.