

9494.1993(01)

REGULATORY INTERPRETATION OF AUTOMATIC WASTE FEED CUTOFFS IN
BOILERS AND INDUSTRIAL FURNACES

United States Environmental Protection Agency
Washington, D.C. 20460
Office of Solid Waste and Emergency Response

September 14, 1993

Mr. Kenneth M. Kastner
Bryan Cave
700 Thirteenth Street, N.W.
Washington, D.C. 20005-3960

Dear Mr. Kastner:

Thank you for your letter of April 13, 1993, requesting an interpretation of the regulation relating to automatic waste feed cutoffs (AWFCOs) in boilers and industrial furnaces (BIFs). We have also received your letter of August 16 that provides details on the locations of the fuel pump and the AWFCO valves with respect to your boiler. For the reasons discussed below, We agree with your interpretation that hazardous waste or residue will not remain after a AWFCO in combustion chambers of systems designed as you described, and, thus, it is not necessary to maintain 2 minimum combustion chamber temperature after the AWFCO.

40 C.F.R. §266.103(g)(1) requires that BIFs be equipped with an AWFCO system that must be triggered if specified control parameters are exceeded. The purpose of this requirement is to ensure that hazardous waste combustion occurs only within a specified operating envelope, and that the combustion of hazardous waste ceases as soon as the facility starts functioning outside that envelope. The regulations also require that after the AWFCO system is triggered, the minimum combustion chamber temperature established during a compliance test shall be maintained (by an auxiliary heat source, if necessary) until hazardous waste or residues no longer remain in the combustion chamber.

In your letter, you explain that your boiler burns liquid hazardous waste fuel, and because of the configuration of the piping system, no hazardous waste will be fed to the boiler when

the AWFCO system is triggered. The waste fuel pump is located downstream and at a lower elevation than the AWFCO valves, which, in turn, are at a lower elevation than the firing nozzle. Thus, hazardous waste fuel cannot flow by gravity into the boiler after a AWFCO. Given that the liquid waste will burn immediately upon firing, and that after a AWFCO is triggered no additional waste will enter the boiler, we conclude that hazardous waste will not remain in the combustion chamber after a AWFCO. Thus, it is not necessary to maintain a minimum combustion chamber temperature after the AWFCO.

Please note that the above determination is site-specific, and depends upon the boiler and pipeline design in relation to the AWFCO system (pump, control valves and burner locations) as well as the physical form of the waste (i.e., liquid versus solid). In some situations, liquid waste may be able to dribble into the combustion chamber by gravity even after an AWFCO if the cutoff valve is located at a comparable or higher elevation than the firing nozzle. In these situations, the minimum combustion chamber requirement applies until the waste stops 'dribbling' into the kiln. In cases where solid or semi-solid (e.g., sludges) waste fuel is fed, the combustion chamber temperature requirement applies until the waste fuel no longer enters the combustion chamber and until the waste residue no longer remains in the combustion chamber. This time would vary from facility to facility. To address each case, the appropriate EPA Region or State authority should be consulted.

If you have further questions on this issue, please feel to call Shiva Garg at (703) 308-8459).

Sincerely,
Jeffery D. Denit
Acting Director
Office of Solid Waste

cc: Sonya Sasseville, PSPD; Kate Anderson, OWPE; Bob Holloway, WMD; Permit Writers (Regions I-X)