

Good Combustion Practices (GCP)

New Mexico Environment Department – Air Quality Bureau

BACT Review, Definition, and Determination as used for

HF Sinclair Navajo (Artesia) Refinery

Good combustion practices (GCP) shall in the general sense mean the operation of combustion equipment at best combustion efficiency, by reducing the products of incomplete combustion (USEPA Region 8, 2007). In a broader sense, this would mean minimizing the emissions of criteria or any other regulated air pollutants. Usually this is a balancing process, when assessing several different pollutants at the same time, in conjunction with physical, chemical, and engineering practices of combustion. These are general concepts promoted by USEPA over the years in numerous documents. Manufacturers are able to provide operation and maintenance manuals, detailing the methods to maintain a high level of combustion efficiency.

The AQB used this same GCP approach with its previous BACT determination for DCP's Zia II Gas Plant in PSD Permit 5217 issued April 25, 2014. At that time DCP cited an EPA document in their BACT review (first reference below). EPA does not appear to have this particular document posted any longer, but a copy is attached as part of this BACT. Good combustion practices are discussed in general terms in EPA's AP-42 guidance posted on their Technology Transfer Network (second reference below), and EPA posts GCP practices for particular kinds of combustion equipment at various times through the years.

References

1. USEPA. (unknown date). Good Combustion Practices. Previously known cite posting: <http://www.epa.gov/ttn/atw/iccr/dirss/gcp.pdf>
2. USEPA. AP-42, Natural gas combustion. Posting currently available March 2023. <https://www3.epa.gov/ttnchie1/ap42/ch01/final/c01s04.pdf>
3. USEPA. Development of Good Combustion Practice for Municipal Waste Combustors. Posting currently available March 2023. https://cfpub.epa.gov/si/si_public_record_Report.cfm?Lab=ORD&dirEntryId=37964
4. USEPA Region 8. 2007. Air Pollution Control, 40 CFR 52.21(i), Prevention of Significant Deterioration Permit to Construct, Final Statement of Basis for Permit No. PSD-OU-0002-04.00, August 30, 2007. Deseret Power Electric Cooperative Bonanza Power Plant, Waste Coal Fired Unit Uintah & Ouray Reservation Uintah County, Utah. As posted on the world-wide-web on January 15, 2014 at: <http://www2.epa.gov/region8/air-pollution-control-40-cfr-5221i-prevention-significant-deterioration-permit-construct>