

FAIRCHILD AIR FORCE BASE ORDER #04-02 REVISION 1

Fairchild Air Force Base (FAFB) has requested revision to their voluntary emission limit order, SRCAA Order #04-02, to reflect changes in boiler operations and fuel monitoring on the base.

BACKGROUND

Fairchild Air Force Base 92d Air Refueling Wing (FAFB) is a military base located about 12 miles west-southwest of Spokane, WA. FAFB is an Air Mobility Command air refueler tanker base. During the initial implementation of SRCAA's Title V Air Operating Permit program, FAFB was classified as a major source, as defined in Chapter 173-401 WAC, due to potential emissions of oxides of nitrogen (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), and volatile organic compounds (VOC) above the major source threshold of 100 tons per year. NO_x, SO₂, and CO were primarily emitted from four large boilers at FAFB's main steam plant. FAFB also operated additional natural gas and diesel fired boilers, diesel fired emergency generators, petroleum storage tanks, surface coating operations, solvent cleaning tanks, and particulate collection systems at the facility. Several categories of emission units operated at FAFB were not subject to the Title V Air Operating Permit program, including emission units and activities for the convenience of military personnel, National Guard emission units and activities, CERCLA Superfund emission units and activities, and aerospace ground equipment (AGE). SRCAA (then known as SCAPCA) issued an air operating permit to FAFB (AOP-2) on December 12, 2000.

In 2002-2003, FAFB decommissioned the four large boilers (3 boilers rated at 110 MMBTU/hr: 1 boiler rated at 120 MMBTU/hr) at the central steam plant; each boiler was capable of burning either natural gas or diesel) FAFB also installed 109 natural gas fired boilers and hot water heaters in numerous buildings throughout the Base. As a result of these projects, the potential emissions of SO₂, CO, and VOC were decreased to below the major source threshold of 100 tons per year. However, the facility's potential to emit (PTE) for NO_x were still above the major source threshold level of 100 tons annually. The NO_x emissions were generated primarily from generators and remaining boilers at the facility.

On May 28, 2004, SRCAA received a request from FAFB, dated May 22, 2004, to revoke the air operating permit issued to FAFB (i.e., AOP-2) and issue a Voluntary Emission Limit (VEL) Order, under WAC 173-400-091, to limit facility-wide emissions of NO_x to 90 tons per year. Per FAFB's request, historical facility-wide annual actual emissions had been below 100 tons of each criteria pollutant. However, because of the central steam plant boilers, the NO_x emissions were close to the major source threshold of 100 tpy. With the emissions reductions obtained from decommissioning the central steam plant boilers, FAFB proposed to limit NO_x emissions to below the 100 tpy major source threshold as allowed under WAC 173-400-091.

Order #04-02 was issued December 10, 2004, and became effective on January 1, 2005, thereby limiting the facility's emissions to below major source thresholds. As of January 1, 2005, FAFB was longer a major source and was no longer subject to SRCAA's Title V Air Operating Permit program. AOP-2 was voided and FAFB became a SRCAA registered source, pursuant to SRCAA Regulation I, Article IV. Order #04-02 requires FAFB to monitor and record all fuel (natural gas and diesel) usage for all boilers and stationary emergency generators at the facility, excluding natural gas usage at the 4 military family housing areas. To determine the facility's non-military housing natural gas usage, FAFB was required to monitor natural gas

usage at both the facility's central gas meter and readings from the gas meters for the 4 housing areas on the Base.

REQUIREMENTS FOR ISSUANCE/REVISION OF VOLUNTARY EMISSIONS LIMITS

Requirements for issuance of voluntary emission limits are found in WAC 173-400-091. This section establishes the process to be followed when issuing a regulatory order, limiting a facility's allowable emissions, i.e., its potential to emit. The criteria which must be fulfilled include:

1. Upon request by a facility, SRCAA must issue a regulatory order that limits a facility's potential to emit any air contaminant(s) to a level agreeable to the facility and SRCAA;
2. The limits in the order must be lower than existing allowable emissions, taking into consideration all applicable requirements;
3. The regulatory order must include monitoring, recordkeeping, and reporting requirements sufficient to ensure that the facility complies with the limits established in the order;
4. The order must go through public comment procedures established in WAC 173-400-171;
5. The regulatory order will be considered federally enforceable, upon EPA approval of WAC 173-400-091 into the State Implementation Plan; and
6. Any proposed deviation from the regulatory order will require revision or revocation of the order.

REVIEW OF ORDER REVISION REQUEST

On 1/17/2023, SRCAA received an e-mailed request from FAFB to revise Order #04-02. In their request, FAFB proposed the following revisions to Order #04-02:

- Track natural gas usage via Avista utility bills for the FAFB facility and revise the emission estimation equation to calculate NOx emissions from natural gas usage in terms of therms (the units for natural gas usage on Avista utility bills).
- Remove the requirement to monitor and record monthly natural gas usage for the military family housing area usage.
- Remove the requirement to track diesel boilers usage.
- Remove the requirement to track propane boilers usage until a time that FAFB installs a propane boiler on the installation.

In their 1/17/23 e-mail, FAFB cited the following facility changes as the basis for the revision request:

- By 2013, all diesel fired boilers had been removed from the facility, and.
- By 2018, independent natural gas meters were installed for the military family housing areas, and are now separate from the central gas meter. This allows FAFB to directly monitor FAFB natural gas usage at the base, separate from the military housing area usage.

- By 2018, all propane fired boilers were removed from the facility.

Each of the WAC 173-400-091 criteria, with respect to the Order revision requests, is discussed below.

1. Does the regulatory order limit the facility's potential to emit any air contaminant(s) to a level agreeable to the facility and SRCAA?

The requested order revision will not change the current limit (90 tons NO_x during any rolling 12 month period) for FAFB.

2. Are the limits in the order lower than existing allowable emissions, taking into consideration all applicable requirements?

Natural gas is the primary fuel for the boilers at FAFB, and elimination of all propane and diesel fired boilers from FAFB does not lower the facility's PTE for NO_x below 100 tons per year [note the facility's generator sets by themselves account for ~ 75 tons of NO_x PTE with natural gas fueled boilers accounting for another ~ 88 tons of NO_x PTE]. The current order limit of 90 tons NO_x during any rolling 12 month period is still lower than the facility's NO_x PTE, and this limit will be retained in the revised order.

3. Does the regulatory order include monitoring, recordkeeping, and reporting requirements sufficient to ensure that the facility complies with the limits established in the order?

The requested order revision will retain the monitoring, recordkeeping, and reporting requirements for boiler natural gas usage and generator diesel usage, and should be sufficient to ensure the facility complies with the current NO_x limit.

4. Has the order gone through the public comment procedures established in WAC 173-400-171?

Prior to issuing the final revised order, the draft revised order will go through a 30-day public comment period, as required in WAC 173-400-171. The public comment period must consist of a minimum of thirty days and start at least thirty days prior to any hearing. The first day of the public comment period begins on the next calendar day after the permitting authority posts the public notice on their website. The public notice must be posted on the SRCAA agency website for the duration of the public comment period. The public notice is required to include the following:

- (i) The date the notice is posted;
- (ii) The name and address of the owner or operator and the facility;
- (iii) A brief description of the proposal and the type of facility, including a description of the facility's processes subject to the permit;
- (iv) A description of the air contaminant emissions including the type of pollutants and quantity of emissions that would increase under the proposal;
- (v) The location where those documents made available for public inspection may be reviewed;
- (vi) Start date and end date for a public comment period;
- (vii) A statement that a public hearing will be held if the permitting authority determines that there is significant public interest;
- (viii) The name, address, and telephone number and email address of a person at the permitting authority from whom interested persons may obtain additional

information, including copies of the permit draft, the application, all relevant supporting materials, including any compliance plan, permit, and monitoring and compliance certification report, and all other materials available to the permitting authority that are relevant to the permit decision, unless the information is exempt from disclosure.

A copy of the public notice will be sent to the EPA Region 10 Administrator as required in WAC 173-400-091(11). A notice is also required to be published in the State Permit Register, per WAC 173-401-805 for "Authorization for a source to operate without an operating permit by limiting its potential to emit to levels below those that would require the source to obtain an operating permit." SRCAA will submit the required information for publication to the State Permit Register for the draft revised order. At the end of the comment period, all comments received will be considered before a final order is issued.

5. Is the regulatory order considered federally enforceable, upon EPA approval of WAC 173-400-091 into the State Implementation Plan?

EPA approved WAC 173-400-091 into the SIP on June 2, 1995. As a result, any order or revised order written pursuant to this section will be federally enforceable. Therefore, the final revised regulatory order will be federally enforceable.

6. Does any proposed deviation from the regulatory order require revision or revocation of the order?

The current order contains a statement that any deviation from any condition of the order requires revision or revocation of the order. This statement will be retained in the revised order.

DRAFT REGULATORY ORDER

The draft regulatory order is attached for your review.

PREPARED BY: _____
Joe Southwell, Environmental Engineer

DATE: _____

REVIEWED BY: _____, P.E.
April Westby, P.E.

DATE: _____

REVIEWED BY: _____
Scott Windsor, Control Officer

DATE: _____