

Iowa Department of Natural Resources

Draft Title V Operating Permit Fact Sheet

This document has been prepared to fulfill the public participation requirements of 40 CFR Part 70 and 567 Iowa Administrative Code (IAC) 22.107(6). 40 CFR Part 70 contains operating permit regulations pursuant to Title V of the Clean Air Act.

The Iowa Department of Natural Resources (DNR) finds that:

1. National Centers for Animal Health, located at 1920 Dayton Avenue, Ames, IA 50010 has applied to renew their Title V Operating Permit. The designated responsible official of this facility is Dr. Mark Ackermann.
2. National Centers for Animal Health is a noncommercial research organization. This facility consists of 17 emission units with potential emissions of:

Pollutant	Abbreviation	Potential Emissions (Tons per Year)
Particulate Matter ($\leq 2.5 \mu\text{m}$)	PM _{2.5}	29.36
Particulate Matter ($\leq 10 \mu\text{m}$)	PM ₁₀	25.70
Particulate Matter	PM	24.56
Sulfur Dioxide	SO ₂	19.99
Nitrogen Oxides	NO _x	144.60
Volatile Organic Compounds	VOC	6.78
Carbon Monoxide	CO	83.70
Lead	Lead	0.02
Hazardous Air Pollutants ⁽¹⁾	HAP	4.81

⁽¹⁾ May include the following: formaldehyde and hexane.

3. National Centers for Animal Health submitted a Title V Operating Permit renewal application on December 21, 2023. Based on the information provided in these documents, DNR has made an initial determination that the facility meets all the applicable criteria for the issuance of an operating permit specified in 567 IAC 22.107.
4. DNR has complied with the procedures set forth in 567 IAC 22.107, including those regarding public notice, opportunity for public hearing, and notification of EPA and surrounding state and local air pollution programs.

DNR procedures for reaching a final decision on the draft permit:

1. The public comment period for the draft permit will run from March 28, 2024 through April 27, 2024. During the public comment period, anyone may submit written comments on the permit. Mail signed comments to Zane Peters at the DNR address shown below. The beginning date of this public comment period also serves as the beginning of the U.S. Environmental Protection Agency's (EPA) 45-day review period, provided the EPA does not seek a separate review period.
2. Written requests for a public hearing concerning the permit may also be submitted during the comment period. Any hearing request must state the person's interest in the subject matter, and the nature of the issues proposed to be raised at the hearing. DNR will hold a public hearing upon finding, on the basis of requests, a significant degree of relevant public interest in a draft permit. Mail hearing requests to Zane Peters at the DNR address shown below.
3. DNR will keep a record of the issues raised during the public participation process, and will prepare written responses to all comments received. The comments and responses will be compiled into a responsiveness summary document. After the close of the public comment period, DNR will make a final decision on the renewal application. The responsiveness summary and the final permit will be available to the public upon request.

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DNR concludes that:

1. DNR has authority under 455B.133 Code of Iowa to promulgate rules contained in 567 IAC Chapters 20-35, including, but not limited to, rules containing emission limits, providing for compliance schedules, compliance determination methods and issuance of permits.
2. DNR has the authority to issue operating permits for air contaminant sources and to include conditions in such permits under 455B.134 Code of Iowa.
3. The emission limits included in this permit are authorized by 455B.133 Code of Iowa and 567 IAC Chapters 20-35.
4. DNR is required to comply with 567 IAC Chapter 22 in conjunction with issuing a Title V Operating Permit.
5. The issuance of this permit does not preclude the DNR from pursuing enforcement action for any violation.

Title V Permit Review Notes

Applicant:	USDA - National Animal Disease Center
SIC Code:	8733, 8734
City:	Ames
County:	Story
EIQ#:	92-5201
Facility#:	85-01-017
Permit #:	02-TV-001R4
Reviewer:	Zane Peters
F.O:	#5

Facility Identification

Facility Name:	USDA - National Animal Disease Center
Facility Location:	1920 Dayton Ave, Ames, IA 50010
Responsible Official:	Dr. Mark Ackermann
Phone:	(515) 337-7202

The Part 70 Title V Operating Permit for USDA - National Animal Disease Center is a Noncommercial Research Organization (SIC 8733). It is also a testing laboratory (SIC 8734). The United States Department of Agriculture has one campus in Ames, Iowa. This campus had two separate designations: National Animal Disease Center (NADC) and National Veterinary Services Laboratory (NVSL), which had separate air operating permits. The two separate permits are now being combined into one as USDA-National Centers for Animal Health. The NCAH has 16 significant emission units and 17 insignificant emission units.

Title V Major Source Status by Pollutant (two sites combined):

Pollutant	Major for Title V?
PM ₁₀	<input type="checkbox"/>
SO ₂	<input type="checkbox"/>
NO _x	<input checked="" type="checkbox"/>
VOC	<input type="checkbox"/>
CO	<input type="checkbox"/>
Lead	<input type="checkbox"/>
Individual HAP	<input type="checkbox"/>
Total HAPs	<input type="checkbox"/>

Applicable Rules and Regulations

1. Facility Wide Opacity: No more than 40%. 567--IAC 23.3(2)"d".
2. Facility Wide SO₂: 500 parts per million by volume. 567--IAC 23.3(3)"e"
3. Title IV: Not applicable at this time.
4. Subject to 112(r) Prevention of Accidental Releases? No
5. NESHAP:

40 CFR Part 63 Subpart ZZZZ

EP S-17, EP S-18, and EP S-19 are subject to National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. These units are new stationary emergency reciprocating internal combustion engines and are subject to this subpart but according to §63.6590(c) all requirements are met by the requirements of 40 CFR Part 60 Subpart IIII.

EP S-13, EP S-14, EU-Freezer Farm, EU-C3 and EP MB Gen are not subject to this subpart according to §63.6585(f)(3) as they are considered existing institutional emergency stationary reciprocating internal combustion engines (RICE). However, these existing emergency generators must be operated within the definition of Emergency Stationary RICE in 40 CFR 63.6675.

EU- C8 is not subject to this subpart because it is a portable engine. NESHAP ZZZZ applies to only stationary RICE.

40 CFR Part 63 Subpart CCCCCC

EP 6K GT is subject to National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities. This area source tank has a throughput less than 10,000 gallons of gasoline per month, and must comply with §63.11116 requirements.

40 CFR Part 63 Subpart JJJJJJ – Not Applicable

EP S-1C, EP S-10, EP S-11, EP S-20 and EP S-15 are existing area source dual-fuel boilers and are of the source category affected by the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. These units are exempt based on the §63.11194(e) classification of an existing dual-fuel fired boiler meeting the definition of gas-fired boiler. Gas fired boilers are not subject to this subpart as defined in §63.11195(e). To remain exempt from this subpart, these boilers must operate within the definition of Gas-Fired Boiler in 40 CFR 63.11237.

6. PSD: No
7. NAAQS: No
8. Stratospheric ozone: No
9. NSPS:

40 CFR Part 60 Subpart Dc

EP S-10, EP S-11, EP S-20 and EP S-15 are subject to Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units as all units have a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour

(MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h), as stated in §60.40c(a). EP S-1C is of the source type subject to the requirements/conditions of NSPS Subpart A – General Provisions and NSPS Subpart Dc – Standards of Performance for Small Industrial-Commercial Institutional Steam Generating Units as specified in 40 CFR Part 60 §60.40c(a) [567 IAC 23.1(2)“III”]; however, this unit was constructed (1965) prior to the applicability date of this subpart; therefore this boiler is not subject to the requirements of NSPS Subpart Dc.

EP S-16 and EP S-16A are not subject to Subpart Dc due to their applicability to 40 CFR Part 60 Subpart KKKK.

40 CFR Part 60 Subpart GG

EP S-16 and EP S-16A are not subject to Standards of Performance for Stationary Gas Turbines (Subpart GG), but they are subject to 40 CFR Part 60 Subpart KKKK, as construction commenced after February 18, 2005 as in §60.4305(a).

40 CFR Part 60 Subpart KKKK

EP S-16 and EP S-16A are subject to Standards of Performance for Stationary Combustion Turbines (Subpart KKKK) as these are stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules/hr (10 MMBTU/hr) and constructed after February 18, 2005 as stated in §60.4305(a) and (b).

40 CFR Part 60 Subpart IIII

EP S-17, EP S-18, and EP S-19 are subject to Standards of Performance for Stationary Compression Ignition Internal Combustion Engines as they are stationary emergency CI ICE constructed after July 11, 2001 as stated in §60.4200(a)(2). These engines are complying with the requirements of Subpart ZZZZ by meeting the requirements of NSPS Subpart IIII.

EP S-13 and EP S-14 are not subject to this subpart (IIII) as they were constructed before July 11, 2005 as stated in §60.4200(a)(2).

The following changes have been made to the Title V permit:

General Changes

- Permit number and relevant permitting dates updated

Emission Point – Specific Changes

- EU C5 and EU-6K FO AST added to the Insignificant Activities Equipment List (pp. 5)

Periodic Monitoring

Periodic Monitoring requirements were evaluated based on the Department’s Periodic Monitoring Guidance. No additional testing or monitoring is needed at this time outside of construction permit requirements and the applicable NSPS and NESHAP subpart requirements.

CAM (Compliance Assurance Monitoring)

The incinerators EP S-21 and EP S-5 are exempt from CAM. Though the construction permits indicate the presence of control equipment (afterburners), the control equipment is actually a secondary combustion chamber on the incinerators. The construction permits (21-A-128 & 95-A-001-S5) require an interlock system to prevent charging waste material until the secondary combustion chamber temperature has reached a minimum temperature of 1600°F and the primary combustion chamber has reached a minimum temperature of 1400°F. Therefore, the secondary combustion chambers can be considered an intrinsic part of the operation of this piece of equipment, rather than a secondary control device. This allows these units to be considered uncontrolled for the purposes of determining periodic monitoring and CAM applicability.

All other units in the facility are uncontrolled (excluding low NOx burners) and therefore they are not subject to CAM requirements.

Stack Testing

EP S-16, S-16A

Pollutant - NOx

Stack Test to be Completed – Annually⁽¹⁾

Test Method - 40 CFR 60, Appendix A, Method 7E

Authority for Requirement - DNR Construction Permit 06-A-1149-S2

DNR Construction Permit 06-A-1308-S2

- ⁽¹⁾ Per engineering evaluation dated 10/05/10, if emissions drop below 75% of the allowable, 40 CFR 60 subpart KKKK allows the testing to be done every 2 years. The most recent test was completed on 2/31/2022, so the next test is due by 10/31/2024.

The turbine is equipped with two exhausts: one through the heat recovery steam generator (HRSG), and one through a stack that bypasses the HRSG. If all of the emissions can be vented through one of the two stacks during a performance test, it is only necessary to test one of the two stacks.

Compliance Demonstration

A performance test (Method 9) is required of emission units S-10, S-11, S-1C, S-20 and S-15 for opacity. Per §60.47c(a), initial testing is required within 45 days of using fuel oil.