

**Iowa Department of Natural Resources  
Title V Operating Permit**

**Name of Permitted Facility: NSK Corporation**  
**Facility Location: 1100 N First St, Clarinda, IA 51632**  
**Air Quality Operating Permit Number: 12-TV-007R2**  
**Expiration Date: February 29, 2028**  
**Permit Renewal Application Deadline: August 29, 2027**  
**EIQ Number: 92-3910**  
**Facility File Number: 73-02-010**

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**Responsible Official**

**Name: Leon Regehr**  
**Title: Plant Leader**  
**Mailing Address: 1100 N First St, Clarinda, IA 51632**  
**Phone #: (712) 695-2906**

**Permit Contact Person for the Facility**

**Name: Breanna Christensen**  
**Title: EHS Manager**  
**Mailing Address: 1100 N First St, Clarinda, IA 51632**  
**Phone #: (712) 695-2823**

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This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

**For the Director of the Department of Natural Resources**

*Marnie Stein*

3/1/2023

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Marnie Stein, Supervisor of Air Operating Permits Section

Date

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## Abbreviations

|                |   |
|----------------|---|
| acfm.....      | actual cubic feet per minute  |
| CFR.....       | Code of Federal Regulation  |
| CE .....       | control equipment   |
| CEM.....       | continuous emission monitor   |
| °F.....        | degrees Fahrenheit  |
| EIQ.....       | emissions inventory questionnaire   |
| EP .....       | emission point  |
| EU .....       | emission unit   |
| gr/dscf .....  | grains per dry standard cubic foot  |
| gr/100 cf..... | grains per one hundred cubic feet   |
| IAC.....       | Iowa Administrative Code  |
| IDNR.....      | Iowa Department of Natural Resources  |
| MVAC.....      | motor vehicle air conditioner   |
| NAICS.....     | North American Industry Classification System   |
| NSPS.....      | new source performance standard   |
| ppmv .....     | parts per million by volume   |
| lb/hr.....     | pounds per hour   |
| lb/MMBtu ..... | pounds per million British thermal units  |
| SCC.....       | Source Classification Codes   |
| scfm.....      | standard cubic feet per minute  |
| SIC .....      | Standard Industrial Classification  |
| TPY.....       | tons per year   |
| USEPA.....     | United States Environmental Protection Agency   |
| swarf.....     | also known as turnings, chips, or filings, are shavings and chippings of metal — the debris or waste resulting from metalworking operations including milling and grinding. It can usually be recycled, and this is the preferred method of disposal due to the environmental concerns regarding potential contamination with cutting fluid or tramp oil. |

### Pollutants

|                        |  |
|------------------------|--|
| PM.....                | particulate matter                                 |
| PM <sub>10</sub> ..... | particulate matter ten microns or less in diameter |
| SO <sub>2</sub> .....  | sulfur dioxide                                     |
| NO <sub>x</sub> .....  | nitrogen oxides                                    |
| VOC.....               | volatile organic compound                          |
| CO.....                | carbon monoxide                                    |
| HAP.....               | hazardous air pollutant                            |

# I. Facility Description and Equipment List

Facility Name: NSK Corporation Clarinda

Permit Number: 12-TV-007R2

Facility Description: Ball and Roller Bearings (SIC 3562 – NAICS 332991)

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## Equipment List – NSK Facility

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**Table 1 – DTR (Degreaser Tank Room)**

| Emission Point ID | Emission Unit ID | Emission Unit Description <sup>(1)</sup>                            | DNR Construction Permit |
|-------------------|------------------|---|-------------------------|
| DTR               | DTR-1            | Tank CL-DT Degreaser System Solvent Tank (1,500 gal)                | 92-A-069-S3             |
|                   | DTR-2            | Tank CL-CT Degreaser System P914 Rust Preventative Tank (1,120 gal) |                         |
|                   | DTR-3            | CL-BT Degreaser System Kerosene/BF Mix Tank (1,120 gal)             |                         |
|                   | DTR-4            | CL-NLT Degreaser System Tank (1,440 gal)                            |                         |
|                   | DTR-5            | CL-Waste Degreaser System Waste Tank (1,440 gal)                    |                         |

<sup>(1)</sup>Tanks are permitted to store liquid organic materials other than the ones listed in the table.

**Table 2 – HT Line (Furnaces)**

| Emission Point ID | Emission Unit ID | Emission Unit Description   | DNR Construction Permit    |
|-------------------|------------------|---|----------------------------|
| MBF1-1,<br>MBF1-2 | MBF1-NG          | HT Line - Mesh Belt Furnace 1 (1.5 MMBtu/hr)<br>w/ Quench Oil Bath Tank,<br>HT Line - RX Gas Generator        | 06-A-311-S3<br>06-A-312-S3 |
|                   | MBF1-H           |   |                            |
|                   | RX-1             |   |                            |
| MBF2-1,<br>MBF2-2 | MBF2-NG          | HT Line - Mesh Belt Furnace 2 (1.5 MMBtu/hr)<br>w/ Quench Oil Bath Tank,<br>HT Line - RX Gas Generator        | 06-A-313-S3<br>06-A-314-S3 |
|                   | MBF2-H           |   |                            |
|                   | RX-1             |   |                            |
| MBF3-1            | MBF3-NG          | HT Line - Heat Treat Furnace (4.4 MMBtu/hr)<br>w/ Quench Oil Bath Tank,<br>HT Line - RX Gas Generator         | 92-A-076-S5                |
|                   | MBF3-H           |   |                            |
|                   | RX-1             |   |                            |
| BIQ1-1,<br>BIQ1-2 | BIQ-1            | HT Line - Batch Integral Quench Furnace (2.0 MMBtu/hr) w/ Quench Oil Bath Tank,<br>HT Line - RX Gas Generator | 06-A-315-S3<br>11-A-352-S1 |
|                   | BIQ-H            |   |                            |
|                   | RX-1             |   |                            |

**Table 3 – Grind Machines**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description<br/>(by area and/or control equipment)</b> | <b>DNR<br/>Construction<br/>Permit</b> |
|--------------------------|-------------------------|---|--|
| G1-G2                    | G1-Grind                | First Grind Process Machines  | 09-A-139-S2                            |
|                          |                         | First Grind Process Machines OD (ISB Area)                              |  |
|                          |                         | First Grind Process Machines PG (ISB Area)                              |  |
|                          | G2-Grind                | Second Grind Process Machines   |  |
|                          |                         | Second Grind Process Machines (ISB Area)                                |  |
|                          |                         | Second Grind Process Machines (ISB Area)                                |  |

**Table 4 – Central Exhaust System**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b> | <b>DNR<br/>Construction<br/>Permit</b> |
|--------------------------|-------------------------|----------------------------------|--|
| SEF-1                    | SF                      | Superfinish Machines             | 09-A-140-S3                            |
|                          | US                      | Ultrasonic Wash Machines         |  |
|                          | KEF                     | First Jet Wash Machines          |  |
|                          |                         | Finish Jet Wash Machines         |  |
|                          |                         | Magnus Wash                      |  |
|                          | CEF                     | Degreaser - Air Blow Tanks       |  |
|                          |                         | Degreaser - Centrifuges          |  |
|                          | RP                      | Rust Preventative Application    |  |

**Table 5 – Superfinish Machines**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description<br/>(by area and/or control equipment)</b> | <b>DNR<br/>Construction<br/>Permit</b> |
|--------------------------|-------------------------|---|--|
| SF                       | SF                      | Superfinish Machines  | 05-A-612-S3                            |
| ISBSF                    | ISBSF                   | Superfinish Machines  | 07-A-005-S2                            |

**Table 6 – Jet Wash Machines**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description<br/>(by area and/or control equipment)</b> | <b>DNR<br/>Construction<br/>Permit</b> |
|--------------------------|-------------------------|---|--|
| ISBJW                    | ISBJW                   | First Jet Wash Machines   | 07-A-006-S3                            |
| ISBFJ                    | ISBFJ                   | Finish Jet Wash Machines  | 07-A-007-S2                            |

**Table 7 – Rust Preventative Application**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b>                         | <b>DNR Construction Permit</b> |
|--------------------------|-------------------------|--|--------------------------------|
| RP                       | RP                      | Rust Preventative Application in Heat Treat and Assembly | 09-A-142-S2                    |

**Table 8 - NSK Generator (B)**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b>                 | <b>DNR Construction Permit</b> |
|--------------------------|-------------------------|--|--------------------------------|
| NSK Generator (B)        | NSK Generator (B)       | NSK Backup Generator (Boiler Room 0.34 MMBtu/hr) | N/A                            |

**Table 9 - NSK Generator (S2)**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b>                               | <b>DNR Construction Permit</b> |
|--------------------------|-------------------------|--|--------------------------------|
| NSK Generator (S2)       | NSK Generator (S2)      | NSK Emergency Backup Generator (Switchgear Room 0.87 MMBtu/hr) | N/A                            |

**Table 10 – AKS Ball Bearing Production**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b>  | <b>DNR Construction Permit</b> |
|--------------------------|-------------------------|-----------------------------------|--------------------------------|
| BBPO                     | BBPO                    | Heading Machines                  | 09-A-141-S2                    |
|                          |                         | Flashing Machines                 |                                |
|                          |                         | Heat Treat & Quench Tanks         |                                |
|                          |                         | Grinding Machines                 |                                |
|                          |                         | L1 – Rough Lapping Machines       |                                |
|                          |                         | Inner Process Washers             |                                |
|                          |                         | L2 – Final Lapping Machines       |                                |
|                          |                         | Final Inspection and Wash Packing |                                |

**Table 11 – AKS Generator**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b>      | <b>DNR Construction Permit</b> |
|--------------------------|-------------------------|---------------------------------------|--------------------------------|
| AKS Generator            | AKS Generator           | AKS Backup Generator (0.017 MMBtu/hr) | N/A                            |

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**Insignificant Activities Equipment List**

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| <b>Insignificant Emission Unit ID</b> | <b>Insignificant Emission Unit Description</b> |
|---------------------------------------|--|
| RXG-2                                 | Endothermic Gas Generator                      |
| GHT-3                                 | Gas Fired Heat Treat, Post Wash                |
| SCT                                   | Spindle Coolant Tank                           |
| MLab                                  | Methanol used in Laboratory                    |
| NSKB                                  | NSK Boiler (2.41 MMBtu/hr)                     |
| NSKRH                                 | NSK Rooftop Heaters (37 @ 0.17 MMBtu/hr each)  |
| NSLPW                                 | NSK Parts Washers                              |
| ASKB                                  | AKS Boiler (0.6 MMBtu/hr)                      |
| AKSWE                                 | AKS Wastewater Evaporator                      |
| AKSRH                                 | AKS Rooftop Heaters (6.385 MMBtu/hr Total)     |

## II. Plant-Wide Conditions

Facility Name: NSK Clarinda  
Permit Number: 12-TV-007R2

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

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### Permit Duration

The term of this permit is: Five (5) years  
Commencing on: March 01, 2023  
Ending on: February 29, 2028

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

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### Emission Limits

*Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:*

Opacity (visible emissions): 40% opacity  
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO<sub>2</sub>): 500 parts per million by volume  
Authority for Requirement: 567 IAC 23.3(3)"e"

Volatile Organic Compounds (VOC): 210.0 tons/year  
The VOC emission rate from the equipment used to clean, process, and manufacture ball bearing assemblies at the NSK facility and from the equipment used to clean, process, and manufacture ball bearings at the NSK-AKS facility shall not exceed 210 tons in any rolling 12-month period. This limit does not apply to equipment used in maintenance activities, laboratories or to combustion equipment.

Authority for Requirement: DNR Construction Permits listed under Facility Equipment List

Particulate Matter:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).

Authority for Requirement: 567 IAC 23.3(2)"a"

Fugitive Dust: Attainment and Unclassified Areas - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in Iowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. (the preceding sentence is State Only) All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizer or limestone.
4. Covering, at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.
6. Reducing the speed of vehicles traveling over on-property surfaces as necessary to minimize the generation of airborne dusts.

Authority for Requirement: 567 IAC 23.3(2)"c"

### III. Emission Point-Specific Conditions

Facility Name: NSK Clarinda  
 Permit Number: 12-TV-007R2

#### Emission Point ID Number: DTR (Degreaser Tank Room)

##### Associated Equipment

**Table 1 – DTR (Degreaser Tank Room)**

| Emission Point ID | Emission Unit ID | Emission Unit Description <sup>(1)</sup>                | Raw Material / Fuel | Rated Capacity |
|-------------------|------------------|---|---------------------|----------------|
| DTR               | DTR-1            | Tank CL-DT Degreaser System Solvent Tank                | Solvent             | 1,500 gal      |
|                   | DTR-2            | Tank CL-CT Degreaser System P914 Rust Preventative Tank | Rust Preventative   | 1,120 gal      |
|                   | DTR-3            | CL-BT Degreaser System Kerosene/BF Mix Tank             | Kerosene            | 1,120 gal      |
|                   | DTR-4            | CL-NLT Degreaser System Tank                            | Degreaser Solvent   | 1,440 gal      |
|                   | DTR-5            | CL-Waste Degreaser System Waste Tank                    | Waste Solvent       | 1,440 gal      |

<sup>(1)</sup>Tanks are permitted to store liquid organic materials other than the ones listed in the table.

#### Applicable Requirements

##### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 210.0 tons/yr <sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 92-A-069-S3

<sup>(1)</sup>The VOC emission limit for all equipment at the NSK and NSK-AKS facilities that uses VOC containing material for the manufacturing, processing, and cleaning of ball bearings and ball bearing assemblies, excluding maintenance, laboratory and combustion sources.

Pollutant: Hazardous Air Pollutants (HAPs)

Emission Limit(s): Potential HAP emissions from this emission point are accounted for under other issued construction permits for this facility.

Authority for Requirement: DNR Construction Permit 92-A-069-S3

### **Operating Requirements with Associated Monitoring and Recordkeeping**

*All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:*

#### **Operating Limits:**

1. The VOC emission rate from the equipment used to clean, process, and manufacture ball bearing assemblies at the NSK facility and from the equipment used to clean, process, and manufacture ball bearings at the NSK-AKS facility shall not exceed 210 tons in any rolling 12-month period. This limit does not apply to equipment used in maintenance activities, laboratories or to combustion equipment.

#### **Operating Condition Monitoring:**

1. To show compliance with 210 tons per year VOC limit, the permittee shall maintain the following monthly records:
  - a) The VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste or in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- b) The VOC emission rate from all equipment at the NSK-AKS facility, 1100A North First Street that uses VOC containing material to clean, manufacture, or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- c) The total VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.
  - d) The rolling 12-month total of the VOC emissions from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.
    - i. The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.
2. In order to take credit for the VOC shipped off-site in waste and in the preservative oil carried off in parts, the permittee shall maintain the following records:
- a) For the VOC-containing used oil material sent off-site from the NSK facility, the permittee shall maintain monthly records on the total amount of material sent off-site, the oil content, and the VOC content of the used oil.
  - b) For the VOC-containing grinding swarf material sent off-site from the NSK facility, the permittee shall maintain an annual record of the total amount of grinding swarf sent off-site and the VOC content of the swarf.

- c) For the VOC-containing preservative oil that is carried off with the parts shipped off site, the permittee shall maintain monthly records on the amount (gallons) and identification of each preservative oil used, the VOC content of the preservative oil and the amount of VOC carried off in the preservative oil. The amount of VOC carried off in the preservative oil shall be calculated in the follow way:

$$VOC_{co} = \sum_{i=1}^n (Vol_{p,i})(VOC_{p,i})(0.6)$$

Where:

$VOC_{co}$  = Total mass of VOC carried off in the preservative oils applied during the month in assembly, pounds.

$Vol_{p,i}$  = Total volume of preservative oil, i, used during the month, gallons.

$VOC_{p,i}$  = VOC content of preservative oil, i, pounds per gallon.

0.6 = Percentage of preservative oil carried off with parts. This is based on tests conducted by NSK on the amount of preservative oil carried off with bearing assemblies.

- d) For the VOC-containing used oil material sent off-site from the NSK-AKS facility, the permittee shall maintain bimonthly (i.e. every other month) records on the total amount of material sent off-site, the oil content, and the VOC content of the recovered oil.
3. The permittee shall submit the following reports to the Iowa DNR - Air Quality Bureau:
- a) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full six months after the issuance of IDNR permit 92-A-069-S3. This report is due 45 days after the completion of the six month period.
  - b) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full nine months after the issuance of IDNR permit 92-A-069-S3. This report is due 45 days after the completion of the nine month period.
  - c) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full twelve months after the issuance of IDNR permit 92-A-069-S3. This report is due 45 days after the completion of the twelve month period.
  - d) After the first twelve months after the issuance of IDNR permit 92-A-069-S3, a report shall be submitted if the actual VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant exceeds 168 tons in any rolling 12-month period. The report shall be submitted no later than 45 days from the end of the month in which the emission rate exceeded 168 tons of VOC.

- e) A report that identifies all exceedances of the rolling 12-month emissions limitations for VOC from Section 10 (emission limit section above) of IDNR Permit 92-A-069-S3. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what limit was exceeded, the amount of VOC emissions, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.
- f) A report that identifies all exceedances of the operating limits from Section 14 (operating limit section above) of IDNR Permit 92-A-069-S3. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what operating limit was exceeded, the value of the exceedance, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.

The reports required by Section 3. a) to d) shall be submitted to the Construction Permits Supervisor, Iowa DNR, Air Quality Bureau. Other reports shall be submitted in accordance with Section 8 of IDNR permit 92-A-069-S3.

Authority for Requirement: DNR Construction Permit 92-A-069-S3

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height (ft, from the ground): 28.5

Stack Opening (inches, dia.): 16 x 16

Exhaust Flow Rate (scfm): 300

Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 92-A-069-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: See Table 2 - HT Line (Furnaces)**

Associated Equipment

**Table 2 – HT Line (Furnaces)**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b>   | <b>Raw Material / Fuel</b> | <b>Rated Capacity</b>            | <b>Authority for Requirement</b> |
|--------------------------|-------------------------|--|----------------------------|----------------------------------|----------------------------------|
| MBF1-1,<br>MBF1-2        | MBF1-NG                 | HT Line - Mesh Belt Furnace 1<br>w/Quench Oil Bath Tank,<br>HT Line - RX Gas Generator           | Natural Gas,<br>Quench Oil | 1.5<br>MMBtu/hr,<br>0.136 gal/hr | 06-A-311-S3,<br>06-A-312-S3      |
|                          | MBF1-H                  |  |                            |                                  |                                  |
|                          | RX-1                    |  |                            |                                  |                                  |
| MBF2-1,<br>MBF2-2        | MBF2-NG                 | HT Line - Mesh Belt Furnace 2<br>w/Quench Oil Bath Tank,<br>HT Line - RX Gas Generator           | Natural Gas,<br>Quench Oil | 1.5<br>MMBtu/hr,<br>0.129 gal/hr | 06-A-313-S3,<br>06-A-314-S3      |
|                          | MBF2-H                  |  |                            |                                  |                                  |
|                          | RX-1                    |  |                            |                                  |                                  |
| MBF3-1                   | MBF3-NG                 | HT Line - Heat Treat Furnace<br>w/Quench Oil Bath Tank,<br>HT Line - RX Gas Generator            | Natural Gas,<br>Quench Oil | 4.4<br>MMBtu/hr,<br>0.129 gal/hr | 92-A-076-S5                      |
|                          | MBF3-H                  |  |                            |                                  |                                  |
|                          | RX-1                    |  |                            |                                  |                                  |
| BIQ1-1,<br>BIQ1-2        | BIQ1-NG                 | HT Line - Batch Integral Quench Furnace<br>w/Quench Oil Bath Tank,<br>HT Line - RX Gas Generator | Natural Gas,<br>Quench Oil | 2.0<br>MMBtu/hr,<br>0.129 gal/hr | 06-A-315-S3,<br>11-A-352-S1      |
|                          | BIQ1-H                  |  |                            |                                  |                                  |
|                          | RX-1                    |  |                            |                                  |                                  |

## Applicable Requirements

### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

**Table 2a**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b>     | <b>Opacity</b><br>567 IAC<br>23.3(2)"d | <b>PM10</b><br>(lb/hr) | <b>PM</b><br>(gr/dscf)<br>567 IAC<br>23.3(2)"a" | <b>PM</b><br>(lb/hr) | <b>SO<sub>2</sub> (ppmv)</b><br>567 IAC<br>23.3(3) | <b>VOC</b><br>(ton/yr)      | <b>DNR Construction Permit</b> |
|--------------------------|-----------------------------|--|------------------------|---|----------------------|--|-----------------------------|--------------------------------|
| MBF1-1                   | MBF1-NG,<br>MBF1-H,<br>RX-1 | 40% <sup>(1)</sup>                     |                        | 0.1   |                      | 500  | 210.0 <sup>(2)</sup><br>3.5 | 06-A-311-S3                    |
| MBF1-2                   |                             | 40% <sup>(1)</sup>                     |                        | 0.1   |                      | 500  | 210.0 <sup>(2)</sup><br>3.5 | 06-A-312-S3                    |
| MBF2-1                   | MBF2-NG,<br>MBF2-H,<br>RX-1 | 40% <sup>(1)</sup>                     |                        | 0.1   |                      | 500  | 210.0 <sup>(2)</sup><br>3.5 | 06-A-313-S3                    |
| MBF2-2                   |                             | 40% <sup>(1)</sup>                     |                        | 0.1   |                      | 500  | 210.0 <sup>(2)</sup><br>3.5 | 06-A-314-S3                    |
| MBF3-1                   | MBF3-NG,<br>MBF3-H,<br>RX-1 | 40% <sup>(1)</sup>                     | 0.5                    | 0.1   | 0.5                  | 500,<br>0.73 ton/yr <sup>(3)</sup>                 | 210.0 <sup>(2)</sup><br>3.5 | 92-A-076-S5                    |
| BIQ1-1                   | BIQ1-NG,<br>BIQ1-H<br>RX-1  | 40% <sup>(1)</sup>                     |                        | 0.1   |                      | 500  | 210.0 <sup>(2)</sup><br>3.5 | 06-A-315-S3                    |
| BIQ1-2                   |                             | 40% <sup>(1)</sup>                     |                        | 0.1   |                      | 500  | 210.0 <sup>(2)</sup><br>3.5 | 11-A-352-S1                    |

<sup>(1)</sup>An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>(2)</sup>The VOC emission limit for all equipment at the NSK and NSK-AKS facilities that uses VOC containing material for the manufacturing, processing, and cleaning of ball bearings and ball bearing assemblies, excluding maintenance, laboratory and combustion sources.

<sup>(3)</sup>The annual SO<sub>2</sub> limit is based on the assumption that 100% of the sulfur in the quench oil is oxidized. No additional demonstration is required to show compliance with this limit.

### Operating Requirements with Associated Monitoring and Recordkeeping

*All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:*

#### Operating Limits:

1. The amount of quench oil used in the quench tanks (EPs MBF1-1, MBF1-2, MBF2-1, MBF2-2, MBF3-1, BIQ-1, and BIQ-2) shall not exceed 20,000 gallons in any rolling 12-month period.
2. The VOC content of the quench oil used at the NSK plant shall not exceed 0.35 pound per gallon.
3. The quench oil used at the NSK plant shall not contain any compounds identified as a Hazardous Air Pollutant (HAP) (*as defined by 112(b) of the Clean Air Act*).

4. The VOC emission rate from the equipment used to clean, process, and manufacture ball bearing assemblies at the NSK facility and from the equipment used to clean, process, and manufacture ball bearings at the NSK-AKS facility shall not exceed 210 tons in any rolling 12-month period. This limit does not apply to equipment used in maintenance activities, laboratories or to combustion equipment.

Reporting & Record keeping:

1. The permittee shall maintain records on the identification, the VOC content and the HAP content of the quench oil used at the NSK plant.
2. The permittee shall maintain the following monthly records:
  - a) The amount of quench oil used at the NSK plant (gallons); and
  - b) The rolling 12-month total of the amount of the quench oil used at the NSK plant (gallons).

The permittee shall maintain these monthly records by the 30th day following the end of the previous month.

3. To show compliance with 210 tons per year VOC limit, the permittee shall maintain the following monthly records:
  - a) The VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- b) The VOC emission rate from all equipment at the NSK-AKS facility, 1100A North First Street that uses VOC containing material to clean, manufacture, or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- c) The total VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.
- d) The rolling 12-month total of the VOC emissions from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The permittee shall maintain these monthly records by the 30th day following the end of the previous month.

- 4. In order to take credit for the VOC shipped off-site in waste and in the preservative oil carried off in parts, the permittee shall maintain the following records:
  - a) For the VOC-containing used oil material sent off-site from the NSK facility, the permittee shall maintain monthly records on the total amount of material sent off-site, the oil content, and the VOC content of the used oil.
  - b) For the VOC-containing grinding swarf material sent off-site from the NSK facility, the permittee shall maintain an annual record of the total amount of grinding swarf sent off-site and the VOC content of the swarf.

- c) For the VOC-containing preservative oil that is carried off with the parts shipped off site, the permittee shall maintain monthly records on the amount (gallons) and identification of each preservative oil used, the VOC content of the preservative oil and the amount of VOC carried-off in the preservative oil. The amount of VOC carried off in the preservative oil shall be calculated in the follow way:

$$VOC_{co} = \sum_{i=1}^n (Vol_{p,i})(VOC_{p,i})(0.6)$$

Where:

$VOC_{co}$  = Total mass of VOC carried off in the preservative oils applied during the month in assembly, pounds.

$Vol_{p,i}$  = Total volume of preservative oil, i, used during the month, gallons.

$VOC_{p,i}$  = VOC content of preservative oil, i, pounds per gallon.

0.6 = Percentage of preservative oil carried off with parts. This is based on tests conducted by NSK on the amount of preservative oil carried off with bearing assemblies.

- d) For the VOC-containing used oil material sent off-site from the NSK-AKS facility, the permittee shall maintain bimonthly (i.e. every other month) records on the total amount of material sent offsite, the oil content, and the VOC content of the recovered oil.
5. The permittee shall submit the following reports to the Iowa DNR - Air Quality Bureau:
- a) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full six months after the issuance of the permits under project 11-108 and dated November 3, 2011. This report is due 45 days after the completion of the six month period.
  - b) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full nine months after the issuance of the permits under project 11-108 and dated November 3, 2011. This report is due 45 days after the completion of the nine month period.
  - c) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full twelve months after the issuance of the permits under project 11-108 and dated November 3, 2011. This report is due 45 days after the completion of the twelve month period.

- d) After the first twelve months after the issuance of the permits under project 11-108 and dated November 3, 2011, a report shall be submitted if the actual VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant exceeds 168 tons in any rolling 12-month period. The report shall be submitted no later than 45 days from the end of the month in which the emission rate exceeded 168 tons of VOC.
- e) A report that identifies all exceedances of the rolling 12-month emissions limitations for VOC from Section 10 (emission limit section above) of the IDNR Permits listed in Table 2a above. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what limit was exceeded, the amount of VOC emissions, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.
- f) A report that identifies all exceedances of the operating limits from Section 14 (operating limit section above) of the IDNR Permits listed in Table 2a above. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what operating limit was exceeded, the value of the exceedance, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.

The reports required by Section 5. a) to d) shall be submitted to the Construction Permits Supervisor, Iowa DNR, Air Quality Bureau. Other reports shall be submitted in accordance with Section 8 the DNR Permits listed in Table 2a above.

Authority for Requirement: DNR Construction Permits listed in Table 2a

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

**Table 2b**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b>     | <b>Height (ft)</b> | <b>Discharge Style</b>   | <b>Opening Diameter (in)</b> | <b>Exhaust Temp (°F)</b> | <b>Exhaust flowrate (scfm)</b> |
|--------------------------|-----------------------------|--------------------|--------------------------|------------------------------|--------------------------|--------------------------------|
| MBF1-1                   | MBF1-NG,<br>MBF1-H,<br>RX-1 | 38                 | Vertical<br>Unobstructed | 8                            | 415                      | Natural draft                  |
| MBF1-2                   |                             | 38                 | Vertical<br>Unobstructed | 8                            | 335                      | Natural draft                  |
| MBF2-1                   | MBF2-NG,<br>MBF2-H,<br>RX-1 | 38                 | Vertical<br>Unobstructed | 8                            | 275                      | Natural draft                  |
| MBF2-2                   |                             | 38                 | Vertical<br>Obstructed   | 8                            | 275                      | Natural draft                  |
| MBF3-1                   | MBF3-NG,<br>MBF3-H,<br>RX-1 | 30                 | Vertical<br>Unobstructed | 24 x 24                      | 329                      | 2,600                          |
| BIQ1-1                   | BIQ1-NG,<br>BIQ1-H,<br>RX-1 | 38                 | Vertical<br>Unobstructed | 8                            | 280                      | Natural draft                  |
| BIQ1-2                   |                             | 35                 | Vertical<br>Unobstructed | 14                           | 120                      | Natural draft                  |

Authority for Requirement: DNR Construction Permits listed in Table 2

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: G1-G2 - Grind Machines**

Associated Equipment

**Table 3 – Grind Machines**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b>   | <b>Raw Material / Fuel</b> | <b>Rated Capacity</b> |
|--------------------------|-------------------------|----------------------------------|--|----------------------------|-----------------------|
| G1-G2                    | G1-Grind                | First Grind Process Machines     | Mist Eliminators<br>CE-Twister Cell or<br>CE-A2000               | Grind<br>Coolant           | 0.519 gal/hr          |
|                          | G2-Grind                | Second Grind Process<br>Machines | Mist Eliminators<br>CE-Twister Cell,<br>CE-A2000, or<br>CE-A4000 | Grind<br>Coolant           | 2.074 gal/hr          |

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 09-A-139-S2  
567 IAC 23.3(2)"d"

<sup>(1)</sup>An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 09-A-139-S2  
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 210.0 tons/yr <sup>(2)</sup>, 42.0 tons/yr

Authority for Requirement: DNR Construction Permit 09-A-139-S2

<sup>(2)</sup>The VOC emission limit for all equipment at the NSK and NSK-AKS facilities that uses VOC containing material for the manufacturing, processing, and cleaning of ball bearings and ball bearing assemblies, excluding maintenance, laboratory and combustion sources.

### **Operating Requirements with Associated Monitoring and Recordkeeping**

*All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:*

#### **Operating Limits:**

1. The VOC content of the coolant used in the G1 and G2 grind machines shall not exceed 3.0 pounds per gallon.
2. The total Hazardous Air Pollutant (HAP) content of the coolant used in the G1 and G2 grind machines shall not exceed 0.0 pound per gallon (*HAP as defined by 112(b) of the Clean Air Act*).
3. The amount of coolant used in G1 and G2 grind machines shall not exceed 28,000 gallons in any rolling 12-month period.
4. The emission rate from the equipment used to clean, process, and manufacture ball bearing assemblies at the NSK facility and from the equipment used to clean, process, and manufacture ball bearings at the NSK-AKS facility shall not exceed 210 tons in any rolling 12-month period. This limit does not apply to equipment used in maintenance activities, laboratories or to combustion equipment.

#### **Reporting & Record keeping:**

1. The permittee shall maintain records on the identification, the VOC content and the HAP content of the coolants that are used in the G1 and G2 grind machines.
2. The permittee shall maintain the following monthly records:
  - a) the amount of coolant used in the G1 and G2 grind machines (gallons); and
  - b) the rolling 12-month total of the amount of coolant used in the G1 and G2 grind machines (gallons).

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

3. To show compliance with the 210 tons per year VOC limit, the permittee shall maintain the following monthly records:

- a) The VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- b) The VOC emission rate from all equipment at the NSK-AKS facility, 1100A North First Street that uses VOC containing material to clean, manufacture, or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- c) The total VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.
- d) The rolling 12-month total of the VOC emissions from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

- 4. In order to take credit for the VOC shipped off-site in waste and in the preservative oil carried off in parts, the permittee shall maintain the following records:
  - a) For the VOC-containing used oil material sent off-site from the NSK facility, the permittee shall maintain monthly records on the total amount of material sent off-site, the oil content, and the VOC content of the used oil.
  - b) For the VOC-containing grinding swarf material sent off-site from the NSK facility, the permittee shall maintain an annual record of the total amount of grinding swarf sent off-site and the VOC content of the swarf.
  - c) For the VOC-containing preservative oil that is carried off with the parts shipped off site, the permittee shall maintain monthly records on the amount (gallons) and identification of each preservative oil used, the VOC content of the preservative oil and the amount of VOC carried off in the preservative oil. The amount of VOC carried off in the preservative oil shall be calculated in the follow way:

$$VOC_{co} = \sum_{i=1}^n (Vol_{p,i})(VOC_{p,i})(0.6)$$

Where:

$VOC_{co}$  = Total mass of VOC carried off in the preservative oils applied during the month in assembly, pounds.

$Vol_{p,i}$  = Total volume of preservative oil, i, used during the month, gallons.

$VOC_{p,i}$  = VOC content of preservative oil, i, pounds per gallon.

0.6 = Percentage of preservative oil carried off with parts. This is based on tests conducted by NSK on the amount of preservative oil carried off with bearing assemblies.

- d) For the VOC-containing used oil material sent off-site from the NSK-AKS facility, the permittee shall maintain bimonthly (i.e. every other month) records on the total amount of material sent off-site, the oil content, and the VOC content of the recovered oil.

5. The permittee shall submit the following reports to the Iowa DNR - Air Quality Bureau:
- a) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full six months after the issuance of IDNR Construction Permit 09-A-139-S2. This report is due 45 days after the completion of the six month period.
  - b) After the first twelve months after the issuance of IDNR Construction Permit 09-A-139-S2, a report shall be submitted if the actual VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant exceeds 168 tons in any rolling 12-month period. The report shall be submitted no later than 45 days from the end of the month in which the emission rate exceeded 168 tons of VOC.
  - c) A report that identifies any new equipment that has been installed in accordance with Section 11 (emission point characteristics below) of IDNR Construction Permit 09-A-139-S2. This report shall be submitted on January 31 of each year and shall cover the previous calendar year. The report shall include a revised equipment list of the equipment covered by this permit and shall evaluate how the installation of any new equipment will affect VOC emissions. Based on a review of this report, the DNR may require this permit to be modified. No report is required to be submitted if the equipment list does not change.
  - d) A report that identifies all exceedances of the rolling 12-month emissions limitations for VOC from Section 10 (emission limit section above) of IDNR Construction Permit 09-A-139-S2. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what limit was exceeded, the amount of VOC emissions, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.
  - e) A report that identifies all exceedances of the operating limits from Section 14 (operating limit section above) of IDNR Construction Permit 09-A-139-S2. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what operating limit was exceeded, the value of the exceedance, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.

The reports required by Section 5. a) to c) shall be submitted to the Construction Permits Supervisor, Iowa DNR, Air Quality Bureau. Other reports shall be submitted in accordance with Section 8 of IDNR Construction Permit 09-A-139-S2.

Authority for Requirement: DNR Construction Permit 09-A-139-S2

### **Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): \*

Stack Opening, (inches, dia.): \*

Exhaust Flow Rate (scfm): \*

Exhaust Temperature (°F): \*

Discharge Style: \*

Authority for Requirement: DNR Construction Permit 09-A-139-S2

\*G1 and G2 grinders exhaust inside the plant.

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

The permittee shall maintain an up-to-date list of all the equipment covered by this permit. The permittee is allowed to install replacement equipment or additional equipment that performs similar manufacturing operations as the equipment listed in this section provided that: 1.) the VOC emission limitations and all operating limits of the permit are complied with by the equipment, and 2.) the new equipment is not subject to any emission limitation or work practice requirement from IAC subrule 23.1(2), 23.1(3) or 23.1(4). Prior to the installation of new equipment that performs different manufacturing functions from the equipment listed in this section; the permittee shall submit an application to modify construction permit 09-A-139-S2.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*The data pertaining to the plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: SEF-1 – Central Exhaust System**

Associated Equipment

**Table 4 – M&W Unit Exhaust**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material / Fuel</b> | <b>Rated Capacity</b> |
|--------------------------|-------------------------|----------------------------------|--------------------------|----------------------------|-----------------------|
| SEF-1                    | SF                      | Superfinish Machines             | CE-M&W Unit              | Oil                        | 0.727 gal/hr          |
|                          | US                      | Ultrasonic Wash Machines         | NA                       | Wash Fluid                 | 0.055 gal/hr          |
|                          | KEF                     | First Jet Wash Machines          | CE-M&W Unit              | Wash Fluid                 | 4.059 gal/hr          |
|                          |                         | Finish Jet Wash Machines         |                          |                            |                       |
|                          |                         | Magnus Wash                      |                          |                            |                       |
|                          | CEF                     | Degreaser – Air Blow Tanks       | CE-M&W Unit              | Wash Fluid                 |                       |
|                          |                         | Degreaser – Centrifuges          |                          |                            |                       |
|                          | RP                      | Rust Preventative Application    | CE-M&W Unit              | Oil                        | 2.00 gal/hr           |

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 09-A-140-S3  
567 IAC 23.3(2)"d"

<sup>(1)</sup>An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 09-A-140-S3  
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 210.0 tons/yr <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 09-A-140-S3

<sup>(2)</sup>The VOC emission limit for all equipment at the NSK and NSK-AKS facilities that uses VOC containing material for the manufacturing, processing, and cleaning of ball bearings and ball bearing assemblies, excluding maintenance, laboratory and combustion sources.

Pollutant: Total Hazardous Air Pollutants (HAPs)

Emission Limit(s): 4.73 tons/yr<sup>(3)</sup>

Authority for Requirement: DNR Construction Permit 09-A-140-S3

<sup>(3)</sup> Total HAP emission limit for the equipment that vents through the Central Exhaust System (EP SEF-1).

**Operating Requirements with Associated Monitoring and Recordkeeping**

*All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:*

1. The permittee shall maintain records on the identification, the VOC content and the HAP content of the wash fluids, solvents and coolants that are used in the Superfinish machines, the Ultrasonic wash machines, the First Jet wash machines, the Finish Jet wash machines, the Magnus wash machine, the Degreaser Air Blow Tank, the Degreaser centrifuge dryers, the Degreaser Centrifuge wash tanks (i.e. assembly area).
2. The permittee shall maintain records on the identification, the VOC content and the HAP content of the preservative oils that are used at the NSK facility, heat treat and assembly.
3. The amount of wash fluid/coolant used in the First Jet Wash machines for Integral Shaft Bearing Operations (EP ISBJW), the First Jet Wash machines (EP SEF-1), and the Ultrasonic Wash machines (EP SEF-1) shall not exceed 18,000 gallons in any rolling 12-month period.
4. The VOC content of the wash fluid/coolant used in the Ultrasonic Wash machines (EU-US), and the First Jet Wash machines shall not exceed 0.85 pound per gallon.
5. The total HAP content of the wash fluid/coolant used in the Ultrasonic Wash machines, the First Jet Wash machines shall not exceed 0.0 pounds per gallon.
6. The amount of cleaning solvent used in the Finish Jet Wash machines, the Magnus Wash machine, and the Degreaser Air Blow Tanks, Centrifuge Dryers, and Centrifuge Wash Tanks (i.e. assembly area) shall not exceed 35,000 gallons in any rolling 12-month period.
7. The VOC content of the cleaning solvent used in the Finish Jet Wash machines, the Magnus Wash machine, and the Degreaser Air Blow Tanks, Centrifuge Dryers, and Centrifuge Wash Tanks (i.e. assembly area) shall not exceed 6.8 pounds per gallon.
8. The total HAP content of the cleaning solvent used in the Finish Jet Wash machines, the Magnus Wash machine, and the Degreaser Air Blow Tanks, Centrifuge Dryers, and Centrifuge Wash Tanks (i.e. assembly area) shall not exceed 0.27 pound per gallon.
9. The total amount of coolant used in the Superfinish machines (EP SF, EP SEF-1) and the Integral Shaft Bearing Superfinish machines (EP ISBSF) shall not exceed 25,000 gallons in any rolling 12-month period.
10. The VOC content of the coolant used in the Superfinish machines shall not exceed 1.2 pounds per gallon.
11. The total HAP content of the coolant used in the Superfinish machines shall not exceed 0.0 pounds per gallon.

12. The preservative oils used at the NSK facility, heat treat and assembly, shall not exceed the following usage, VOC and total HAP content limits:

| <b>Material</b>                              | <b>Usage limit – rolling 12 month period</b> | <b>VOC content limit – lbs/gal</b> | <b>Total HAP content limit – lbs/gal</b> |
|--|--|------------------------------------|--|
| Yumax P 307 NBF or equivalent <sup>(1)</sup> | 8030 gallons                                 | 5.31                               | 0.0                                      |
| Yuma P 307 BF or equivalent                  | 5060 gallons                                 | 4.20                               | 0.12                                     |
| Yuma S-300 or equivalent                     | 660 gallons                                  | 7.20                               | 0.0                                      |
| Yuma P-605 or equivalent                     | 440 gallons                                  | 1.0                                | 0.0                                      |
| Castrol Rustillo or equivalent               | 220 gallons                                  | 6.30                               | 0.0                                      |
| Velocite 6 or equivalent                     | 2200 gallons                                 | 0.75                               | 0.0                                      |
| Yuma P-914 or equivalent                     | 440 gallons                                  | 2.60                               | 0.0                                      |
| Rust Veto Heavy or equivalent                | 440 gallons                                  | 0.05                               | 0.0                                      |

<sup>(1)</sup> An equivalent preservative oil shall be a preservative oil that performs the same function as the preservative oil that it replaces. Prior to using an equivalent preservative oil, the permittee shall submit a written notification to the Iowa DNR, Air Quality Bureau on the identification of the new preservative oil and the VOC content. The construction permit is not required to be modified unless the new preservative oil has a higher VOC content than what is allowed by the permit. Prior to using a new VOC-containing preservative oil in heat treat or assembly that is applied in a new manner or in a new machine, the permittee shall apply to modify this permit.

13. The permittee shall maintain the following monthly records:

- a) The amount of wash fluid/coolant used in the First Jet Wash machines for Integral Shaft Bearing operations, the First Jet Wash machines, and the Ultrasonic Wash machines (gallons);
- b) The rolling 12-month total of the amount of wash fluid/coolant used in the First Jet Wash machines for Integral Shaft Bearing operations, the First Jet Wash machines, and the Ultrasonic Wash machines (gallons).
- c) The amount of solvent used in the Finish Jet wash machines, the Magnus wash machine, the Degreaser Air Blow Tank, the Degreaser centrifuge dryers, and the Degreaser Centrifuge wash tanks;
- d) The rolling 12-month total of the amount of solvent used in the Finish Jet wash machines, the Magnus wash machine, the Degreaser Air Blow Tank, the Degreaser centrifuge dryers, and the Degreaser Centrifuge wash tanks;
- e) The amount of coolant used in the Superfinish machines and the Integral Shaft Bearing Superfinish machines (gallons);
- f) The rolling 12-month total of the amount of coolant used in the Superfinish machines and the Integral Shaft Bearing Superfinish machines (gallons);

- g) The amount of each preservative oil used;
- h) The rolling 12-month total of the amount of each preservative oil used.

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

14. The VOC emission rate from the equipment used to clean, process, and manufacture ball bearing assemblies at the NSK facility and from the equipment used to clean, process and manufacture ball bearings at the NSK-AKS facility shall not exceed 210 tons in any rolling 12-month period. This limit does not apply to equipment used in maintenance activities, laboratories or to combustion equipment.
15. To show compliance with the 210 tons per year VOC limit, the permittee shall maintain the following monthly records:

- a) The VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- b) The VOC emission rate from all equipment at the NSK-AKS facility, 1100A North First Street that uses VOC containing material to clean, manufacture, or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- c) The total VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.
- d) The rolling 12-month total of the VOC emissions from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

16. In order to take credit for the VOC shipped off-site in waste and in the preservative oil carried off in parts, the permittee shall maintain the following records:

- a) For the VOC-containing used oil material sent off-site from the NSK facility, the permittee shall maintain monthly records on the total amount of material sent off-site, the oil content, and the VOC content of the used oil.
- b) For the VOC-containing grinding swarf material sent off-site from the NSK facility, the permittee shall maintain an annual record of the total amount of grinding swarf sent off-site and the VOC content of the swarf.

- c) For the VOC-containing preservative oil that is carried off with the parts shipped off site, the permittee shall maintain monthly records on the amount (gallons) and identification of each preservative oil used, the VOC content of the preservative oil and the amount of VOC carried off in the preservative oil. The amount of VOC carried off in the preservative oil shall be calculated in the follow way:

$$VOC_{co} = \sum_{i=1}^n (Vol_{p,i})(VOC_{p,i})(0.6)$$

Where:

$VOC_{co}$  = Total mass of VOC carried off in the preservative oils applied during the month in assembly, pounds.

$Vol_{p,i}$  = Total volume of preservative oil, i, used during the month, gallons.

$VOC_{p,i}$  = VOC content of preservative oil, i, pounds per gallon.

0.6 = Percentage of preservative oil carried off with parts. This is based on tests conducted by NSK on the amount of preservative oil carried off with bearing assemblies.

- d) For the VOC-containing used oil material sent off-site from the NSK-AKS facility, the permittee shall maintain bimonthly (i.e. every other month) records on the total amount of material sent off-site, the oil content, and the VOC content of the recovered oil.
17. The permittee shall develop an operating and maintenance plan for the Mist Eliminators (CE-M&W Unit), including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
- a) The owner or operator shall maintain a record of all inspections and maintenance and any action resulting from the inspection and maintenance of the Mist Eliminators (CE-M&W Unit).
18. The permittee shall submit the following reports to the Iowa DNR - Air Quality Bureau:
- a) A report shall be submitted if the actual VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK facility and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS facility exceeds 168 tons in any rolling 12-month period. The report shall be submitted no later than 30 days from the end of the month in which the emission rate exceeded 168 tons of VOC. This monthly reporting shall continue until the actual VOC emission rate drops below 168 tons for the rolling 12-month period.
- b) A report that identifies any new equipment that has been installed in accordance with Condition 3 of this permit. This report shall be submitted on January 31 of each year and shall cover the previous calendar year. The report shall include a revised equipment list of the equipment covered by this permit and shall evaluate how the installation of any new equipment will affect VOC emissions. Based on a review of this report, the DNR may require this permit to be modified. No report is required to be submitted if the equipment list does not change.

- c) A report that identifies all exceedances of the rolling 12-month emissions limitations for VOC from Condition 1 of this permit. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what limit was exceeded, the amount of VOC emissions, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.
- d) A report that identifies all exceedances of the operating limits from Condition 5 of this permit. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what operating limit was exceeded, the value of the exceedance, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.

Authority for Requirement: DNR Construction Permit 09-A-140-S3

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 25

Stack Opening, (inches, dia.): 54

Exhaust Flow Rate (scfm): 30,000

Exhaust Temperature (°F): 70

Discharge Style: Vertical Unobstructed

Authority for Requirement: DNR Construction Permit 09-A-140-S3

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

The permittee shall maintain an up-to-date list of all the equipment covered by this permit. The permittee is allowed to install replacement equipment or additional equipment that performs similar manufacturing operations as the equipment listed in this section provided that: 1.) the VOC emission limitations and all operating limits of the permit are complied with by the equipment, and 2.) the new equipment is not subject to any emission limitation or work practice requirement from IAC subrule 23.1(2), 23.1(3) or 23.1(4). Prior to the installation of new equipment that performs different manufacturing functions from the equipment listed in this section; the permittee shall submit an application to modify construction permit 09-A-140-S3.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*The data pertaining to the plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: SF, ISBSF - Superfinish Machines**

Associated Equipment

**Table 5 – Superfinish Machines**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b> | <b>Raw Material / Fuel</b> | <b>Rated Capacity</b> |
|--------------------------|-------------------------|----------------------------------|--------------------------|----------------------------|-----------------------|
| SF                       | SF                      | Superfinish Machines             | CE-Twisted Cell          | Oil                        | 0.727 gal/hr          |
| ISBSF                    | ISBSF                   | Superfinish Machines             | CE-A2000, CE-A4000       | Oil                        | 0.415 gal/hr          |

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: DNR Construction Permits 05-A-612-S3 and 07-A-005-S2  
567 IAC 23.3(2)"d"

<sup>(1)</sup>An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permits 05-A-612-S3 and 07-A-005-S2  
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 210.0 <sup>(2)</sup>, 15.0 <sup>(3)</sup>

Authority for Requirement: DNR Construction Permits 05-A-612-S3 and 07-A-005-S2

<sup>(2)</sup>The VOC emission limit for all equipment at the NSK and NSK-AKS facilities that uses VOC containing material for the manufacturing, processing, and cleaning of ball bearings and ball bearing assemblies, excluding maintenance, laboratory and combustion sources.

<sup>(3)</sup> VOC emission limit for the Superfinish Machines (EP SF, EP SEF-1) and the Integral Shaft Bearing Superfinish Machines (EP ISBSF).

### **Operating Requirements with Associated Monitoring and Recordkeeping**

*All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:*

#### **Operating Limits:**

1. The VOC content of the coolant used in the Superfinish machines shall not exceed 1.2 pounds per gallon.
2. The coolant used in the Superfinish machines shall not contain any compounds identified as a Hazardous Air Pollutant (*HAP as defined by 112(b) of the Clean Air Act*).
3. The total amount of coolant used in the Superfinish machines (EP SF, EP SEF-1) and the Integral Shaft Bearing Superfinish machines (EP ISBSF) shall not exceed 25,000 gallons in any rolling 12-month period.
4. The VOC emission rate from the equipment used to clean, process, and manufacture ball bearing assemblies at the NSK facility and from the equipment used to clean, process, and manufacture ball bearings at the NSK-AKS facility shall not exceed 210 tons in any rolling 12-month period. This limit does not apply to equipment used in maintenance activities, laboratories or to combustion equipment.

#### **Reporting & Record keeping:**

1. The permittee shall maintain records on the identification, the VOC content and the HAP content of the coolant used in the Superfinish machines.
2. The permittee shall maintain the following monthly records:
  - a) the amount of coolant used in the Superfinish machines and the Integral Shaft Bearing Superfinish machines (gallons); and
  - b) the rolling 12-month total of the amount of coolant used in the Superfinish machines and the Integral Shaft Bearing Superfinish machines (gallons).

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

3. To show compliance with 210 tons per year VOC limit, the permittee shall maintain the following monthly records:

- a) The VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- b) The VOC emission rate from all equipment at the NSK-AKS facility, 1100A North First Street that uses VOC containing material to clean, manufacture, or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- c) The total VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.
- d) The rolling 12-month total of the VOC emissions from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

- 4. In order to take credit for the VOC shipped off-site in waste and in the preservative oil carried off in parts, the permittee shall maintain the following records:
  - a) For the VOC-containing used oil material sent off-site from the NSK facility, the permittee shall maintain monthly records on the total amount of material sent off-site, the oil content, and the VOC content of the used oil.
  - b) For the VOC-containing grinding swarf material sent off-site from the NSK facility, the permittee shall maintain an annual record of the total amount of grinding swarf sent off-site and the VOC content of the swarf.
  - c) For the VOC-containing preservative oil that is carried off with the parts shipped off site, the permittee shall maintain monthly records on the amount (gallons) and identification of each preservative oil used, the VOC content of the preservative oil and the amount of VOC carried off in the preservative oil. The amount of VOC carried off in the preservative oil shall be calculated in the follow way:

$$VOC_{co} = \sum_{i=1}^n (Vol_{p,i})(VOC_{p,i})(0.6)$$

Where:

$VOC_{co}$  = Total mass of VOC carried off in the preservative oils applied during the month in assembly, pounds.

$Vol_{p,i}$  = Total volume of preservative oil, i, used during the month, gallons.

$VOC_{p,i}$  = VOC content of preservative oil, i, pounds per gallon.

0.6 = Percentage of preservative oil carried off with parts. This is based on tests conducted by NSK on the amount of preservative oil carried off with bearing assemblies.

- d) For the VOC-containing used oil material sent off-site from the NSK-AKS facility, the permittee shall maintain bimonthly (i.e. every other month) records on the total amount of material sent off-site, the oil content, and the VOC content of the recovered oil.
5. The permittee shall submit the following reports to the Iowa DNR - Air Quality Bureau:
- a) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full six months after the issuance of IDNR Construction Permits 05-A-612-S3 and 07-A-005-S2. This report is due 45 days after the completion of the six month period.
  - b) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full nine months after the issuance of IDNR Construction Permits 05-A-612-S3 and 07-A-005-S2. This report is due 45 days after the completion of the nine month period.
  - c) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full twelve months after the issuance of IDNR Construction Permits 05-A-612-S3 and 07-A-005-S2. This report is due 45 days after the completion of the twelve month period.
  - d) After the first twelve months after the issuance of IDNR Construction Permits 05-A-612-S3 and 07-A-005-S2, a report shall be submitted if the actual VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant exceeds 168 tons in any rolling 12-month period. The report shall be submitted no later than 45 days from the end of the month in which the emission rate exceeded 168 tons of VOC.
  - e) A report that identifies any new equipment that has been installed in accordance with Section 11 (emission point characteristics below) of IDNR Construction Permits 05-A-612-S3 and 07-A-005-S2. This report shall be submitted on January 31 of each year and shall cover the previous calendar year. The report shall include a revised equipment list of the equipment covered by this permit and shall evaluate how the installation of any new equipment will affect VOC emissions. Based on a review of this report, the DNR may require this permit to be modified. No report is required to be submitted if the equipment list does not change.
  - f) A report that identifies all exceedances of the rolling 12-month emissions limitations for VOC from Section 10 (emission limit section above) of IDNR Construction Permits 05-A-612-S3 and 07-A-005-S2. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what limit was exceeded, the amount of VOC emissions, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.

- g) A report that identifies all exceedances of the operating limits from Section 14 (operating limit section above) of IDNR Construction Permits 05-A-612-S3 and 07-A-005-S2. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what operating limit was exceeded, the value of the exceedance, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.

The reports required by Section 5. a) to e) shall be submitted to the Construction Permits Supervisor, Iowa DNR, Air Quality Bureau. Other reports shall be submitted in accordance with Section 8 of IDNR Construction Permits 05-A-612-S3 and 07-A-005-S2.

Authority for Requirement: DNR Construction Permits 05-A-612-S3 and 07-A-005-S2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): \*

Stack Opening, (inches, dia.): \*

Exhaust Flow Rate (scfm): \*

Exhaust Temperature (°F): \*

Discharge Style: \*

Authority for Requirement: DNR Construction Permits 05-A-612-S3 and 07-A-005-S2

\*The Superfinish machines exhaust inside the plant.

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

The permittee shall maintain an up-to-date list of all the equipment covered by this permit. The permittee is allowed to install replacement equipment or additional equipment that performs similar manufacturing operations as the equipment listed in this section provided that: 1.) the VOC emission limitations and all operating limits of the permit are complied with by the equipment, and 2.) the new equipment is not subject to any emission limitation or work practice requirement from IAC subrule 23.1(2), 23.1(3) or 23.1(4). Prior to the installation of new equipment that performs different manufacturing functions from the equipment listed in this section; the permittee shall submit an application to modify construction permits 05-A-612-S3 and 07-A-005-S2.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*The data pertaining to the plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: ISBJW, ISBFJ - Jet Wash Machines**

Associated Equipment

**Table 6 – Jet Wash Machines**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b> | <b>Control Equipment</b>    | <b>Raw Material / Fuel</b> | <b>Rated Capacity</b> |
|--------------------------|-------------------------|----------------------------------|-----------------------------|----------------------------|-----------------------|
| ISBJW                    | ISBJW                   | First Jet Wash Machines          | Mist Eliminator: CE-ME500XF | Wash Fluid                 | 0.299 gal/hr          |
| ISBFJ                    | ISBFJ                   | Finish Jet Wash Machines         | Mist Eliminator: CE-ME500XF | Wash Fluid                 | 1.071 gal/hr          |

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

**Table 6a**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Opacity</b><br>567 IAC<br>23.3(2)"d" | <b>PM</b><br>(gr/dscf)<br>567 IAC<br>23.3(2)"a" | <b>VOC</b><br>(ton/yr) | <b>HAP</b><br>(ton/yr) | <b>DNR Construction Permit</b> |
|--------------------------|-------------------------|---|---|------------------------|------------------------|--------------------------------|
| ISBJW                    | ISBJW                   | 40% <sup>(1)</sup>                      | 0.1   | 7.65 <sup>(2)</sup>    |                        | 07-A-006-S3                    |
| ISBFJ                    | ISBFJ                   | 40% <sup>(1)</sup>                      | 0.1   | 30.6 <sup>(3)</sup>    | 1.22 <sup>(4)</sup>    | 07-A-007-S2                    |

<sup>(1)</sup>An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

<sup>(2)</sup> VOC emission limit for the First Jet Wash machines for Integral Shaft Bearing operations (EP ISBJW), the First Jet Wash machines (EP SEF-1) and the Ultrasonic Wash machines (EP SEF-1).

<sup>(3)</sup> VOC emission limit for the Integral Shaft Bearing Finish Jet Wash Machines (EP ISBFJ).

<sup>(4)</sup> Total HAP emission limit for the Integral Shaft Bearing Finish Jet Wash Machines (EP ISBFJ).

Authority for Requirement: DNR Construction Permits listed in Table 6a

### **Operating Requirements with Associated Monitoring and Recordkeeping**

*All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:*

#### **Operating Limits:**

Emission Point ISBJW – First Jet Wash Machines:

1. The VOC content of the wash fluid/coolant used in the First Jet Wash machines for Integral Shaft Bearing Operations shall not exceed 0.85 pound per gallon.
2. The HAP <sup>(1)</sup> content of the wash fluid/coolant used in the First Jet Wash machines for Integral Shaft Bearing Operations shall not exceed 0.0 pound per gallon.
3. The amount of wash fluid/coolant used in the First Jet Wash machines for Integral Shaft Bearing Operations (EP ISBJW), the First Jet Wash machines (EP SEF-1), and the Ultrasonic Wash machines (EP SEF-1) shall not exceed 18,000 gallons in any rolling 12-month period.
4. The VOC emission rate from the equipment used to clean, process, and manufacture ball bearing assemblies at the NSK facility and from the equipment used to clean, process, and manufacture ball bearings at the NSK-AKS facility shall not exceed 210 tons in any rolling 12-month period. This limit does not apply to equipment used in maintenance activities, laboratories or to combustion equipment.

Emission Point ISBFJ - Finish Jet Wash machines:

1. The VOC content of the wash fluid/coolant used in these emissions units shall not exceed 6.8 pounds per gallon.
2. The total HAP content of the wash fluid/coolant used in these emissions units shall not exceed 0.27 pound per gallon.
3. The amount of wash fluid/coolant used in these emissions units shall not exceed 9,000 gallons in any rolling 12-month period.
4. The VOC emission rate from the equipment used to clean, process, and manufacture ball bearing assemblies at the NSK facility and from the equipment used to clean, process, and manufacture ball bearings at the NSK-AKS facility shall not exceed 210 tons in any rolling 12-month period. This limit does not apply to equipment used in maintenance activities, laboratories or to combustion equipment.

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

Reporting & Record keeping:

For all Jet Wash Machines (ISBJW and ISBFJ):

1. The permittee shall maintain records on the identification, the VOC content and the HAP content of the wash fluid/coolant used in the First Jet Wash machines for Integral Shaft Bearing operations and the Integral Shaft Bearing Finish Jet Wash machines.
2. The permittee shall maintain the following monthly records:
  - a) the amount of wash fluid/coolant used in the First Jet Wash machines for Integral Shaft Bearing operations, the First Jet Wash machines, the Ultrasonic Wash machines and the Integral Shaft Bearing Finish Jet Wash machines (gallons) and;
  - b) the rolling 12-month total of the amount of wash fluid/coolant used in the First Jet Wash machines for Integral Shaft Bearing operations, the First Jet Wash machines, the Ultrasonic Wash machines and the Integral Shaft Bearing Finish Jet Wash machines (gallons).

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

3. To show compliance with 210 tons per year VOC limit, the permittee shall maintain the following monthly records:
  - a) The VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- b) The VOC emission rate from all equipment at the NSK-AKS facility, 1100A North First Street that uses VOC containing material to clean, manufacture, or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- c) The total VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.
- d) The rolling 12-month total of the VOC emissions from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

- 4. In order to take credit for the VOC shipped off-site in waste and in the preservative oil carried off in parts, the permittee shall maintain the following records:
  - a) For the VOC-containing used oil material sent off-site from the NSK facility, the permittee shall maintain monthly records on the total amount of material sent off-site, the oil content, and the VOC content of the used oil.
  - b) For the VOC-containing grinding swarf material sent off-site from the NSK facility, the permittee shall maintain an annual record of the total amount of grinding swarf sent off-site and the VOC content of the swarf.

- c) For the VOC-containing preservative oil that is carried off with the parts shipped off site, the permittee shall maintain monthly records on the amount (gallons) and identification of each preservative oil used, the VOC content of the preservative oil and the amount of VOC carried off in the preservative oil. The amount of VOC carried off in the preservative oil shall be calculated in the follow way:

$$VOC_{co} = \sum_{i=1}^n (Vol_{p,i})(VOC_{p,i})(0.6)$$

Where:

$VOC_{co}$  = Total mass of VOC carried off in the preservative oils applied during the month in assembly, pounds.

$Vol_{p,i}$  = Total volume of preservative oil, i, used during the month, gallons.

$VOC_{p,i}$  = VOC content of preservative oil, i, pounds per gallon.

0.6 = Percentage of preservative oil carried off with parts. This is based on tests conducted by NSK on the amount of preservative oil carried off with bearing assemblies.

- d) For the VOC-containing used oil material sent off-site from the NSK-AKS facility, the permittee shall maintain bimonthly (i.e. every other month) records on the total amount of material sent off-site, the oil content, and the VOC content of the recovered oil.
5. The permittee shall submit the following reports to the Iowa DNR - Air Quality Bureau:
- e) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full six months after the issuance of IDNR Construction Permits 07-A-006-S3 and 07-A-007-S2. This report is due 45 days after the completion of the six month period.
  - f) After the first twelve months after the issuance of IDNR Construction Permits 07-A-006-S3 and 07-A-007-S2, a report shall be submitted if the actual VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant exceeds 168 tons in any rolling 12-month period. The report shall be submitted no later than 45 days from the end of the month in which the emission rate exceeded 168 tons of VOC.
  - g) A report that identifies any new equipment that has been installed in accordance with Section 11 (emission point characteristics below) of IDNR Construction Permits 07-A-006-S3 and 07-A-007-S2. This report shall be submitted on January 31 of each year and shall cover the previous calendar year. The report shall include a revised equipment list of the equipment covered by this permit and shall evaluate how the installation of any new equipment will affect VOC emissions. Based on a review of this report, the DNR may require this permit to be modified. No report is required to be submitted if the equipment list does not change.

- h) A report that identifies all exceedances of the rolling 12-month emissions limitations for VOC from Section 10 (emission limit section above) of IDNR Construction Permits 07-A-006-S3 and 07-A-007-S2. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what limit was exceeded, the amount of VOC emissions, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.
- i) A report that identifies all exceedances of the operating limits from Section 14 (operating limit section above) of IDNR Construction Permits 07-A-006-S3 and 07-A-007-S2. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what operating limit was exceeded, the value of the exceedance, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.

The reports required by Section 5. a) to c) shall be submitted to the Construction Permits Supervisor, Iowa DNR, Air Quality Bureau. Other reports shall be submitted in accordance with Section 8 of IDNR Construction Permits 07-A-006-S3 and 07-A-007-S2.

Authority for Requirement: DNR Construction Permits 07-A-006-S3 and 07-A-007-S2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): \*

Stack Opening, (inches, dia.): \*

Exhaust Flow Rate (scfm): \*

Exhaust Temperature (°F): \*

Discharge Style: \*

Authority for Requirement: DNR Construction Permits 07-A-006-S3 and 07-A-007-S2

\*The First Jet Wash and Finish Jet Wash machines exhaust inside the plant.

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

The permittee shall maintain an up-to-date list of all the equipment covered by this permit. The permittee is allowed to install replacement equipment or additional equipment that performs similar manufacturing operations as the equipment listed in this section provided that: 1.) the VOC emission limitations and all operating limits of the permit are complied with by the equipment, and 2.) the new equipment is not subject to any emission limitation or work practice requirement from IAC subrule 23.1(2), 23.1(3) or 23.1(4). Prior to the installation of new equipment that performs different manufacturing functions from the equipment listed in this section; the permittee shall submit an application to modify construction permits 07-A-006-S3 and 07-A-007-S2.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**                      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**                      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**                      Yes  No

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*The data pertaining to the plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: RP - Rust Preventative Application

### Associated Equipment

**Table 7 – Rust Preventative Application**

| Emission Point ID | Emission Unit ID | Emission Unit Description                                | Raw Material / Fuel | Rated Capacity |
|-------------------|------------------|--|---------------------|----------------|
| RP                | RP               | Rust Preventative Application in Heat Treat and Assembly | Preservative Oils   | 17,490 gal/yr  |

### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: DNR Construction Permit 09-A-142-S2  
567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 09-A-142-S2  
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC)

Emission Limit(s): 210.0 tons/yr <sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 09-A-142-S2

<sup>(1)</sup>The VOC emission limit for all equipment at the NSK and NSK-AKS facilities that uses VOC containing material for the manufacturing, processing, and cleaning of ball bearings and ball bearing assemblies, excluding maintenance, laboratory and combustion sources.

Pollutant: Total Hazardous Air Pollutants (HAP)

Emission Limit(s): 0.30 tons/yr <sup>(2)</sup>

Authority for Requirement: DNR Construction Permit 09-A-142-S2

<sup>(2)</sup>Total HAP emission limits for rust preventative application at the NSK facility, heat treat and assembly.

### **Operating Requirements with Associated Monitoring and Recordkeeping**

*All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:*

#### **Operating Limits:**

1. The preservative oils used at the NSK facility, heat treat and assembly, shall not exceed the following usage and VOC content limits:

| <b>Material<sup>(1)</sup></b>  | <b>Usage limit – rolling 12 month period</b> | <b>VOC content limit – lbs/gal</b> |
|--------------------------------|--|------------------------------------|
| Yumax P 307 NBF or equivalent  | 8,030 gallons                                | 5.31                               |
| Yuma P 307 BF or equivalent    | 5,060 gallons                                | 4.2                                |
| Yuma S-300 or equivalent       | 660 gallons                                  | 7.2                                |
| Yuma P-605 or equivalent       | 440 gallons                                  | 1.0                                |
| Castrol Rustillo or equivalent | 220 gallons                                  | 6.3                                |
| Velocite 6 or equivalent       | 2,200 gallons                                | 0.75                               |
| Yuma P-914 or equivalent       | 440 gallons                                  | 2.6                                |
| Rust Veto Heavy or equivalent  | 440 gallons                                  | 0.05                               |

<sup>(1)</sup> An equivalent preservative oil shall be a preservative oil that performs the same function as the preservative oil that it replaces. Prior to using an equivalent preservative oil, the permittee shall submit a written notification to the Iowa DNR, Air Quality Bureau on the identification of the new preservative oil and the VOC content. The construction permit is not required to be modified unless the new preservative oil has a higher VOC content than what is allowed by the permit. Prior to using a new VOC-containing preservative oil in heat treat or assembly that is applied in a new manner or in a new machine, the permittee shall apply to modify this permit.

2. The total HAP content of Yumax P-307 BF or its equivalent shall not exceed 0.12 lb/gallon. The other preservative oils used in assembly shall not contain any HAPs (*Hazardous Air Pollutant as defined by 112(b) of the Clean Air Act*).
3. The VOC emission rate from the equipment used to clean, process, and manufacture ball bearing assemblies at the NSK facility and from the equipment used to clean, process and manufacture ball bearings at the NSK-AKS facility shall not exceed 210 tons in any rolling 12-month period. This limit does not apply to equipment used in maintenance activities, laboratories or to combustion equipment.

Reporting & Record keeping:

1. The permittee shall maintain records on the identification, the VOC content and the HAP content of the preservative oils that are used at the NSK facility, heat treat and assembly.
2. The permittee shall maintain the following monthly records:
  - a) The amount of each preservative oil used; and
  - b) The rolling 12-month total of the amount of each preservative oil used.

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

3. To show compliance with the 210 tons per year VOC limit, the permittee shall maintain the following monthly records:
  - a) The VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- b) The VOC emission rate from all equipment at the NSK-AKS facility, 1100A North First Street that uses VOC containing material to clean, manufacture, or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The VOC emission rate shall be determined by multiplying the amount of VOC containing materials used (gallons) by the VOC content of the material (lbs/gal) and dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grind sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed into storage.

- c) The total VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.
- d) The rolling 12-month total of the VOC emissions from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

3. In order to take credit for the VOC shipped off-site in waste and in the preservative oil carried off in parts, the permittee shall maintain the following records:
  - a) For the VOC-containing used oil material sent off-site from the NSK facility, the permittee shall maintain monthly records on the total amount of material sent off-site, the oil content, and the VOC content of the used oil.
  - b) For the VOC-containing grinding swarf material sent off-site from the NSK facility, the permittee shall maintain an annual record of the total amount of grinding swarf sent off-site and the VOC content of the swarf.
  - c) For the VOC-containing preservative oil that is carried off with the parts shipped off site, the permittee shall maintain monthly records on the amount (gallons) and identification of each preservative oil used, the VOC content of the preservative oil and the amount of VOC carried off in the preservative oil. The amount of VOC carried off in the preservative oil shall be calculated in the follow way:

$$VOC_{co} = \sum_{i=1}^n (Vol_{p,i})(VOC_{p,i})(0.6)$$

Where:

$VOC_{co}$  = Total mass of VOC carried off in the preservative oils applied during the month in assembly, pounds.

$Vol_{p,i}$  = Total volume of preservative oil, i, used during the month, gallons.

$VOC_{p,i}$  = VOC content of preservative oil, i, pounds per gallon.

0.6 = Percentage of preservative oil carried off with parts. This is based on tests conducted by NSK on the amount of preservative oil carried off with bearing assemblies.

- d) For the VOC-containing used oil material sent off-site from the NSK-AKS facility, the permittee shall maintain bimonthly (i.e. every other month) records on the total amount of material sent off-site, the oil content, and the VOC content of the recovered oil.

4. The permittee shall submit the following reports to the Iowa DNR - Air Quality Bureau:
- a) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full six months after the issuance of IDNR Construction Permit 09-A-142-S2. This report is due 45 days after the completion of the six month period.
  - b) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full nine months after the issuance of IDNR Construction Permit 09-A-142-S2. This report is due 45 days after the completion of the nine month period.
  - c) A report showing the monthly VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant for the first full twelve months after the issuance of IDNR Construction Permit 09-A-142-S2. This report is due 45 days after the completion of the twelve month period.
  - d) After the first twelve months after the issuance of IDNR Construction Permit 09-A-142-S2, a report shall be submitted if the actual VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK plant and from the equipment used to clean, manufacture and otherwise process ball bearings at the NSK-AKS plant exceeds 168 tons in any rolling 12-month period. The report shall be submitted no later than 45 days from the end of the month in which the emission rate exceeded 168 tons of VOC.
  - e) A report that identifies all exceedances of the rolling 12-month emissions limitations for VOC from Section 10 (emission limit section above) of IDNR Construction Permit 09-A-142-S2. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what limit was exceeded, the amount of VOC emissions, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.
  - f) A report that identifies all exceedances of the operating limits from Section 14 (operating limit section above) of IDNR Construction Permit 09-A-142-S2. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what operating limit was exceeded, the value of the exceedance, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.

The reports required by Section 5. a) to d) shall be submitted to the Construction Permits Supervisor, Iowa DNR, Air Quality Bureau. Other reports shall be submitted in accordance with Section 8 of IDNR Construction Permit 09-A-142-S2.

Authority for Requirement: DNR Construction Permit 09-A-142-S2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): \*

Stack Opening, (inches, dia.): \*

Exhaust Flow Rate (scfm): \*

Exhaust Temperature (°F): \*

Discharge Style: \*

Authority for Requirement: DNR Construction Permit 09-A-142-S2

\*Equipment vents inside.

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within thirty (30) days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

The permittee shall maintain an up-to-date list of all the equipment covered by this permit. The permittee is allowed to install replacement equipment or additional equipment that performs similar manufacturing operations as the equipment listed in this section provided that: 1.) the VOC emission limitations and all operating limits of the permit are complied with by the equipment, and 2.) the new equipment is not subject to any emission limitation or work practice requirement from IAC subrule 23.1(2), 23.1(3) or 23.1(4). Prior to the installation of new equipment that performs different manufacturing functions from the equipment listed in this section; the permittee shall submit an application to modify construction permit 09-A-142-S2.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**                      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**                      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**                      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: NSK Backup Generator (B)

### Associated Equipment

**Table 8 - NSK Generator (B)**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b>   | <b>Raw Material / Fuel</b> | <b>Rated Capacity</b> |
|--------------------------|-------------------------|------------------------------------|----------------------------|-----------------------|
| NSK Generator (B)        | NSK Generator (B)       | NSK Backup Generator (Boiler Room) | Natural Gas                | 0.34 MMBtu/hr         |

### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)

#### National Emission Standards for Hazardous Air Pollutants (NESHAP):

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

According to 40 CFR 63.6590(a)(1)(iii) this spark ignition emergency engine, located at an area source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

#### Compliance Date

Per 63.6595(a)(1) you must comply with the provisions of subpart ZZZZ that are applicable by October 19, 2013.

Operation and Maintenance Requirements 40 CFR 63.6603, 63.6625, 63.6640 and Tables 2d and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(j) for the oil analysis option to extend time frame of requirements.)
2. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
5. Install a non-resettable hour meter if one is not already installed.
6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. Except as provided in 40 CFR 63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

1. Keep records of the maintenance conducted on the stationary RICE.
2. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2d to Subpart ZZZZ

1. An initial notification is not required per 40 CFR 63.6645(a)(5).
2. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2d. (See Footnote 2 of Table 2d for more information.)

Authority for Requirement: 40 CFR 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: NSK Backup Generator (S2)

### Associated Equipment

**Table 9 - NSK Generator (S2)**

| Emission Point ID  | Emission Unit ID   | Emission Unit Description              | Raw Material / Fuel | Rated Capacity |
|--------------------|--------------------|--|---------------------|----------------|
| NSK Generator (S2) | NSK Generator (S2) | NSK Backup Generator (Switchgear Room) | Natural Gas         | 0.85 MMBtu/hr  |

### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)

#### National Emission Standards for Hazardous Air Pollutants (NESHAP):

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

According to 40 CFR 63.6590(a)(2)(iii) this emergency engine, located at an area source, is a new stationary RICE as it was constructed on or after June 12, 2006.

According to 40 CFR 63.6590(c)(1), a new stationary RICE located at an area source of HAP emissions must meet the requirements of Part 63 by meeting the requirements of 40 CFR part 60 subpart JJJJ for spark ignition engines. No further requirements apply for this engine under Part 63.

Authority for Requirement: 40 CFR Part 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

Certification Requirements

According to 60.4231(a) and 60.4233(a), the engine manufacturers must certify these engines to the following emission standards in grams/kW-hr (grams/HP-hr) and other requirements for new nonroad SI engines in 40 CFR Part 90 or 1054 as follows:

| <b>Engine Displacement <sup>(1)</sup></b> | <b>Manufacture Date</b> | <b>HC + NOx</b> | <b>NMHC + NOx <sup>(2)</sup></b> | <b>CO</b> | <b>Rule Reference</b> |
|---|-------------------------|-----------------|----------------------------------|-----------|-----------------------|
| ≥ 225 cc                                  | 1/1/2011 +              | 8.0 (6.0)       | -----                            | 610 (455) | 40 CFR 1054           |

<sup>(1)</sup> cc = cubic centimeters.

<sup>(2)</sup> NMHC + NOx standards are applicable only to natural gas fuel engines at the option of manufacturer in lieu of HC + NOx standards.

Requirements for Certified SI Engines

1. Owners and operators must keep a record from the manufacturer that the engines are certified to meet applicable emission standards. 40 CFR 60.4245(a)(3).
2. Owners and operators of SI engines that are required to be certified and who operate and maintain the engine according to the manufacturer’s written instructions must keep records of required maintenance. 40 CFR 60.4243(a)(1).

Requirements for Non-Certified SI Engines

1. Engines that are required to be certified that are not operated and maintained according to manufacturer’s written instructions are considered to be non-certified engines. Owners and operators of such a non-certified SI engine must keep a maintenance plan and records of conducted maintenance and must maintain and operate the engine in a manner consistent with good air pollution control practice to minimize emissions. 40 CFR 60.4243(a)(2).
2. Owners and operators of non-certified engines must keep records of the documentation that these engines meet the applicable emission standards. 40 CFR 60.4245(a)(4).

Monitoring Requirements

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**      Yes  No

**Facility Maintained Operation & Maintenance Plan Required?**      Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?**      Yes  No

Authority for Requirement: 567 IAC 22.108(3)

**Emission Point ID Number: BBPO - AKS Ball Bearing Production**

Associated Equipment

**Table 10 – AKS Ball Bearing Production**

| <b>Emission Point ID</b> | <b>Emission Unit ID</b> | <b>Emission Unit Description</b> | <b>Raw Material / Fuel</b> | <b>Control Equipment</b>                   |
|--------------------------|-------------------------|----------------------------------|----------------------------|--|
| BBPO                     | BBPO                    | Heading Machines                 | No fluid used in process   | Dry Filters (CE AAS20-1 thru 7), (CE MA-1) |
|                          |                         | Flashing Machines                | Additive to Kill Bacteria  | NA   |
|                          |                         | Heat Treat & Quench Tanks        | Quench Oil                 | Dry Filters (CE AAS40-1 thru 6)            |
|                          |                         | Grinding Machines                | Cutting Oil                | A Mist 20 Filter                           |
|                          |                         | L1 – Rough Lapping Machines      | Cutting Oil                | A Mist 20 Filter                           |
|                          |                         | Inner Process Washers            | Wash Fluid                 | NA   |
|                          |                         | L2 – Final Lapping Machines      | Cutting Oil                | NA   |
|                          |                         | Final Inspection and Wash        | Wash Fluid                 | NA   |
|                          |                         | Packing                          | Coatings                   | NA   |

**Applicable Requirements**

**Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40% <sup>(1)</sup>

Authority for Requirement: DNR Construction Permit 09-A-141-S2  
567 IAC 23.3(2)"d"

<sup>(1)</sup> An exceedance of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM<sub>10</sub>)

Emission Limit(s): 2.4 lb/hr

Authority for Requirement: DNR Construction Permit 09-A-141-S2

Pollutant: Particulate Matter (PM)

Emission Limit(s): 2.4 lb/hr, 0.1 gr/dscf

Authority for Requirement: DNR Construction Permit 09-A-141-S2  
567 IAC 23.3(2)"a"

Pollutant: Volatile Organic Compounds (VOC) – EP BPPO  
Emission Limit(s): 70.0 tons/yr  
Authority for Requirement: DNR Construction Permit 09-A-141-S2

Pollutant: Volatile Organic Compounds (VOC) - Facility  
Emission Limit(s): 210.0 tons/yr<sup>(2)</sup>  
Authority for Requirement: DNR Construction Permit 09-A-141-S2

<sup>(2)</sup> The VOC emission limit for all equipment at the NSK and NSK-AKS facilities that uses VOC containing material for the manufacturing, processing, and cleaning of ball bearings and ball bearing assemblies, excluding maintenance, laboratory and combustion sources.

Pollutant: Total Hazardous Air Pollutants (HAP)  
Emission Limit(s): 0.20 tons/yr<sup>(3)</sup>  
Authority for Requirement: DNR Construction Permit 09-A-141-S2  
<sup>(3)</sup> Total HAP emission limit for the ball bearing processing equipment at NSK-AKS

**Operating Requirements with Associated Monitoring and Recordkeeping**

*All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:*

1. The permittee shall maintain an up-to-date list of all the equipment covered by this permit. The permittee is allowed to install replacement equipment or additional equipment that performs similar manufacturing operations as the equipment listed in the Condition 3 tables provided that:
  - a) The VOC and THAP emission limits and all operating limits of the permit are complied with by the equipment; and
  - b) The new equipment is not subject to any emission limitation or work practice requirement from IAC subrule 23.1(2), 23.1(3) or 23.1(4).Prior to the installation of new equipment that performs different manufacturing functions from the equipment listed in the Condition 3 tables, the permittee shall submit an application to modify this construction permit.
2. The VOC emission rate from the equipment used to clean, process, and manufacture ball bearings at the NSK-AKS plant shall not exceed 70 tons in any rolling 12-month period. This limit does not apply to equipment used in maintenance activities, laboratories or to combustion equipment.
3. The VOC emission rate from the equipment used to clean, process, and manufacture ball bearing assemblies at the NSK facility and from the equipment used to clean, process, and manufacture ball bearings at the NSK-AKS facility shall not exceed 210 tons in any rolling 12-month period. This limit does not apply to equipment used in maintenance activities, laboratories or to combustion equipment.

4. The permittee shall maintain up-to-date records on the identification, the VOC content, and the HAP content of the oils, solvents, wash fluids and coolants used to manufacture ball bearings at the NSK-AKS plant.
5. To show compliance with the total HAP limit of 0.20 ton per year, the permittee shall maintain a monthly record of total HAP emissions from the ball bearing production operation (EP BBPO) at the NSK-AKS plant. Records shall show the rolling 12-month total of emissions.
6. To show compliance with the 70 tons per year VOC limit for EP BBPO, the permittee shall maintain the following monthly records:
  - a) The VOC emission rate from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC-containing material to clean, manufacture or otherwise process ball bearings. The equipment shall include, but not be limited to: flow coaters, quench oil tanks, grinding machines, rough lapping machines, final lapping machines, process tanks, cold forming machines, interprocess washers and inspection machines.
    - i. The VOC emission rate shall be determined by multiplying the amount of VOC-containing materials used (gallons) by the VOC content of the material (pounds per gallon) and then dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grinding sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC. If taking credit, the permittee shall record the amount of waste that is shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried off.
      - A. The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month the parts that contain the carried-off preservative oil are placed into storage.
  - b) The rolling 12-month total of the VOC emissions from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC-containing material to clean, manufacture or otherwise process ball bearings, excluding maintenance, laboratory and combustion equipment.

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the previous month.

7. To show compliance with the 210 tons per year VOC limit, the permittee shall maintain the following monthly records:
  - a) The VOC emission rate from all equipment at the NSK facility (facility number 73-02-010) that uses VOC-containing material to clean, manufacture or otherwise process ball bearing assemblies, excluding maintenance, laboratory and combustion equipment.
    - i. The VOC emission rate shall be determined by multiplying the amount of VOC-containing materials used (gallons) by the VOC content of the material (pounds per gallon) and then dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grinding sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC-containing waste material. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried off.
      - A. The credit may be subtracted for the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed in storage.
  - b) The VOC emission rate from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC-containing material to clean, manufacture or otherwise process ball bearings. The equipment shall include, but not be limited to: flow coaters, quench oil tanks, grinding machines, rough lapping machines, final lapping machines, process tanks, cold forming machines, interprocess washers and inspection machines.
    - i. The VOC emission rate shall be determined by multiplying the amount of VOC-containing materials used (gallons) by the VOC content of the material (pounds per gallon) and then dividing by 2000. For the purpose of calculating monthly emissions, the permittee may consider material added as makeup to be the same as material used. In addition, the permittee may take credit for any VOC in waste shipped off-site (e.g. used oil, G1/G2 swarf, waste carry-off in rags, and grinding sludge) and VOC shipped off-site with the preservative oil applied to parts in assembly. If the permittee chooses to take credit for any VOC in waste shipped off-site or for any VOC retained in the preservative oil, the permittee shall retain records for each particular credited VOC. If taking credit, the permittee shall record the amount of waste and the amount of preservative oil carried off in parts

that are shipped off-site. If taking credit, the permittee shall maintain a record that documents the VOC content of the waste and the preservative oil carried-off and the amount of VOC in the waste and in the preservative oil carried-off.

- A. The credit may be subtracted from the VOC rolling total in the month in which the VOC containing waste material is shipped off-site and in the month in which the parts that contain the carried-off preservative oil are placed in storage.
- c) The total VOC emission rate from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or otherwise process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or other process ball bearings, excluding maintenance, laboratory and combustion equipment.
- d) The rolling 12-month total of the VOC emissions from all equipment at the NSK facility, 1100 North First Street, that uses VOC containing material to clean, manufacture or other process ball bearing assemblies and from all equipment at the NSK-AKS facility, 1100A North First Street, that uses VOC containing material to clean, manufacture or other process ball bearings, excluding maintenance, laboratory and combustion equipment.

The permittee shall maintain these monthly records by the 30<sup>th</sup> day following the end of the month.

8. In order to take credit for the VOC shipped off-site in waste and in the preservative oil carried off in parts, the permittee shall maintain the following records:
- a) For the VOC-containing used oil material sent off-site from the NSK facility, the permittee shall maintain monthly records on the total amount of material sent off-site, the oil content, and the VOC content of the used oil.
  - b) For the VOC-containing grinding swarf material sent off-site from the NSK facility, the permittee shall maintain an annual record of the total amount of grinding swarf sent off-site and the VOC content of the swarf.
  - c) For the VOC-containing preservative oil that is carried off with the parts shipped off site, the permittee shall maintain monthly records on the amount (gallons) and identification of each preservative oil used, the VOC content of the preservative oil and the amount of VOC carried off in the preservative oil. The amount of VOC carried off in the preservative oil shall be calculated in the following way:

$$\text{VOC}_{\text{co}} = \sum_{i=1}^n (\text{Vol}_{\text{p},i}) (\text{VOC}_{\text{p},i})(0.6)$$

Where:

$VOC_{co}$  = Total mass of VOC carried off in the preservative oils applied during the month in assembly, pounds.

$Vol_{p,i}$  = Total volume of preservative oil, i, used during the month, gallons.

$VOC_{p,i}$  = VOC content of preservative oil, i, pounds per gallon.

0.6 = Percentage of preservative oil carried off with parts. This is based on tests conducted by NSK on the amount of preservative oil carried off with bearing assemblies.

- d) For the VOC-containing used oil material sent off-site from the NSK-AKS facility, the permittee shall maintain bimonthly (i.e. every other month) records on the total amount of material sent off-site, the oil content, and the VOC content of the recovered oil.
9. The permittee shall develop an operating and maintenance plan for the Dry Filters listed as control equipment in the Condition 3 tables, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.
    - a) The owner or operator shall maintain a record of all inspections and maintenance and any actions resulting from the inspection and maintenance of the Dry Filters.
  10. The permittee shall submit the following reports to the Iowa DNR – Air Quality Bureau:
    - a) A report shall be submitted if the actual VOC emissions from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK facility and from the equipment used to clean, manufacture and otherwise process ball bearing assemblies at the NSK-AKS facility exceeds 168 tons in any rolling 12-month period. The report shall be submitted no later than 30 days from the end of the month in which the emission rate exceeded 168 tons of VOC. This monthly reporting shall continue until the actual VOC emission rate drops below 168 tons for the rolling 12-month period.
    - b) A report that identifies any new equipment that has been installed in accordance with Condition 5.A. of this permit. This report shall be submitted by January 31 of each year and shall cover the previous calendar year. The report shall include a revised equipment list of the equipment covered by this permit and shall evaluate how the installation of any new equipment will affect VOC emissions. Based on a review of this report, the DNR may require this permit to be modified. No report is required to be submitted if the equipment list does not change.
    - c) A report that identifies all exceedances of the rolling 12-month emissions limitations for VOC from Condition 1 of this permit. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what limit was exceeded, the amount of VOC emissions, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.

- d) A report that identifies all exceedances of the operating limits from Condition 5 of this permit. The report shall be submitted no later than 45 days from the end of the month in which the exceedance occurred. The report shall include, at a minimum, what operating limit was exceeded, the value of the exceedance, the date the exceedance occurred, and the steps that have been or will be taken to correct the exceedance.

Authority for Requirement: DNR Construction Permit 09-A-141-S2

**Emission Point Characteristics**

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): \*

Stack Opening, (inches, dia.): \*

Exhaust Flow Rate scfm): \*

Exhaust Temperature (°F): \*

Discharge Style: \*

Authority for Requirement: DNR Construction Permit 09-A-141-S2

\*Equipment vents inside the plant

The temperature and flowrate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point characteristics above are different than the values stated, the owner or operator shall submit a request either by electronic mail or written correspondence to the Department within 30 days of the discovery to determine if a permit amendment is required, or submit a permit application requesting to amend the permit.

The permittee shall maintain an up-to-date list of all the equipment covered by this permit. The permittee is allowed to install replacement equipment or additional equipment that performs similar manufacturing operations as the equipment listed in this section provided that: 1.) the VOC emission limitations and all operating limits of the permit are complied with by the equipment, and 2.) the new equipment is not subject to any emission limitation or work practice requirement from IAC subrule 23.1(2), 23.1(3) or 23.1(4). Prior to the installation of new equipment that performs different manufacturing functions from the equipment listed in this section; the permittee shall submit an application to modify construction permit 09-A-141-S2.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## Emission Point ID Number: AKS Generator

### Associated Equipment

**Table 11 – AKS Generator**

| Emission Point ID | Emission Unit ID | Emission Unit Description | Raw Material / Fuel | Rated Capacity |
|-------------------|------------------|---------------------------|---------------------|----------------|
| AKS Generator     | AKS Generator    | AKS Backup Generator      | Natural Gas         | 0.017 MMBtu/hr |

### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40%

Authority for Requirement: 567 IAC 23.3(2)"d

Pollutant: Particulate Matter (PM)

Emission Limit(s): 0.1 gr/dscf

Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limit(s): 500 ppmv

Authority for Requirement: 567 IAC 23.3(3)

#### National Emission Standards for Hazardous Air Pollutants (NESHAP):

The emergency engine is subject to 40 CFR 63 Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

According to 40 CFR 63.6590(a)(1)(iii) this spark ignition emergency engine, located at an area source, is an existing stationary RICE as it was constructed prior to June 12, 2006.

#### Operation and Maintenance Requirements 40 CFR 63.6603, 63.6625, 63.6640 and Tables 2d and 6 to Subpart ZZZZ

1. Change oil and filter every 500 hours of operation or annually, whichever comes first. (See 63.6625(j) for the oil analysis option to extend time frame of requirements.)
2. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. Operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and

operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

5. Install a non-resettable hour meter if one is not already installed.
6. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

Operating Limits 40 CFR 63.6640(f)

1. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations (*up to*) 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. You may operate your emergency stationary RICE up to 100 combined hours per calendar year for maintenance checks and readiness testing. See 40 CFR 63.6640(f)(2) for additional information and restrictions.
4. You may operate your emergency stationary RICE up to 50 hours per calendar year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. Except as provided in 40 CFR 63.6640(f)(4)(i) and (ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

Recordkeeping Requirements 40 CFR 63.6655

3. Keep records of the maintenance conducted on the stationary RICE.
4. Keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. Document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. See 40 CFR 63.6655(f) for additional information.

Notification and Reporting Requirements 40 CFR 63.6645, 63.6650 and Table 2d to Subpart ZZZZ

3. An initial notification is not required per 40 CFR 63.6645(a)(5).
4. A report may be required for failure to perform the work practice requirements on the schedule required in Table 2d. (See Footnote 2 of Table 2d for more information.)

Authority for Requirement: 40 CFR 63 Subpart ZZZZ  
567 IAC 23.1(4)"cz"

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes  No

**Facility Maintained Operation & Maintenance Plan Required?** Yes  No

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes  No

Authority for Requirement: 567 IAC 22.108(3)

## IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

### G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*
6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. *567 IAC 22.108(15)"c"*

### G2. Permit Expiration

1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, Wallace State Office Building, 502 E 9th St., Des Moines, IA 50319-0034, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to U.S. EPA Region VII, Attention: Chief of Air Permitting & Standards Branch, 11201 Renner Blvd., Lenexa, KS 66219. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

### **G3. Certification Requirement for Title V Related Documents**

1. Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

### **G4. Annual Compliance Certification**

1. By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

### **G5. Semi-Annual Monitoring Report**

1. By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6-month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with *567 IAC 22.107(4)*. The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

### **G6. Annual Fee**

1. The permittee is required under subrule *567 IAC 22.106* to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The emissions inventory shall be submitted annually by March 31 with forms specified by the department documenting actual emissions for the previous calendar year.
4. The fee shall be submitted annually by July 1 with forms specified by the department.
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.

7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

**G7. Inspection of Premises, Records, Equipment, Methods and Discharges**

1. Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:
  - a. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
  - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - d. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. 567 IAC 22.108 (15)"b"

**G8. Duty to Provide Information**

1. The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. 567 IAC 22.108 (9)"e"

**G9. General Maintenance and Repair Duties**

1. The owner or operator of any air emission source or control equipment shall:
  - a. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
  - b. Remedy any cause of excess emissions in an expeditious manner.
  - c. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
  - d. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. 567 IAC 24.2(1)

#### **G10. Recordkeeping Requirements for Compliance Monitoring**

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
  - a. The date, place and time of sampling or measurements
  - b. The date the analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses; and
  - f. The operating conditions as existing at the time of sampling or measurement.
  - g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.
3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:
  - a. Comply with all terms and conditions of this permit specific to each alternative scenario.
  - b. Maintain a log at the permitted facility of the scenario under which it is operating.
  - c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

#### **G11. Evidence used in establishing that a violation has or is occurring.**

1. Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.
  - a. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:
    - i. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
    - ii. Compliance test methods specified in 567 Chapter 25; or
    - iii. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.
  - b. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
    - i. Any monitoring or testing methods provided in these rules; or
    - ii. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

**G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification**

1. If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

**G13. Hazardous Release**

1. The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 725-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in *567 IAC 131.2(2). 567 IAC Chapter 131-State Only*

**G14. Excess Emissions and Excess Emissions Reporting Requirements**

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

## 2. Excess Emissions Reporting

- a. Initial Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1) ) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:
    - i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
    - ii. The estimated quantity of the excess emission.
    - iii. The time and expected duration of the excess emission.
    - iv. The cause of the excess emission.
    - v. The steps being taken to remedy the excess emission.
    - vi. The steps being taken to limit the excess emission in the interim period.
  - b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required initial reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:
    - i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
    - ii. The estimated quantity of the excess emission.
    - iii. The time and duration of the excess emission.
    - iv. The cause of the excess emission.
    - v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
    - vi. The steps that were taken to limit the excess emission.
    - vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*
3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:
- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

- b. The facility at the time was being properly operated;
  - c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
  - d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 22.108(5)"b." – See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. *567 IAC 22.108(16)*

**G15. Permit Deviation Reporting Requirements**

- 1. A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

**G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations**

- 1. During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

**G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification**

- 1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
  - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
  - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
  - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
  - d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 - 22.144(455B));
  - e. The changes comply with all applicable requirements.
  - f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a

written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

- i. A brief description of the change within the permitted facility,
- ii. The date on which the change will occur,
- iii. Any change in emission as a result of that change,
- iv. The pollutants emitted subject to the emissions trade
- v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
- vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
- vii. Any permit term or condition no longer applicable as a result of the change.

*567 IAC 22.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*
3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*
4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*
5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

#### **G18. Duty to Modify a Title V Permit**

1. Administrative Amendment.
  - a. An administrative permit amendment is a permit revision that does any of the following:
    - i. Correct typographical errors
    - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
    - iii. Require more frequent monitoring or reporting by the permittee; or

- iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.
  - b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.
  - c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.
2. Minor Title V Permit Modification.
- a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:
    - i. Do not violate any applicable requirement;
    - ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;
    - iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;
    - iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
    - v. Are not modifications under any provision of Title I of the Act; and
    - vi. Are not required to be processed as significant modification under rule 567 - 22.113(455B).
  - b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
    - i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
    - ii. The permittee's suggested draft permit;
    - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
    - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

- c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.
3. Significant Title V Permit Modification.
- a. Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, as those requirements that apply to Title V issuance and renewal.
  - b. The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. *567 IAC 22.111-567 IAC 22.113*

**G19. Duty to Obtain Construction Permits**

- 1. Unless exempted in 567 IAC 22.1(2) or to meet the parameters established in 567 IAC 22.1(1)"c", the permittee shall not construct, install, reconstruct or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, or conditional permit, or permit pursuant to rule 567 IAC 22.8, or permits required pursuant to rules 567 IAC 22.4, 567 IAC 22.5, 567 IAC 31.3, and 567 IAC 33.3 as required in 567 IAC 22.1(1). A permit shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon. *567 IAC 22.1(1)*

**G20. Asbestos**

- 1. The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations (*567 IAC 23.1(3)"a"*); training fires and controlled burning of a demolished building (*567 IAC 23.2*).

**G21. Open Burning**

- 1. The permittee is prohibited from conducting open burning, except as provided in 567 IAC 23.2. *567 IAC 23.2 except 23.2(3)"j"; 567 IAC 23.2(3)"j" - State Only*

## **G22. Acid Rain (Title IV) Emissions Allowances**

1. The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*

## **G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements**

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
  - b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
  - c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
  - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
  - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final

assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting or greenhouse gas generating substances to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

#### **G24. Permit Reopenings**

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*
2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.
  - a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;
  - b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.
  - c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"*
3. A permit shall be reopened and revised under any of the following circumstances:
  - a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;
  - b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;
  - c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

- d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
  - e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*
4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*
  5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. *567 IAC 22.114(3)*

**G25. Permit Shield**

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:
  - a. Such applicable requirements are included and are specifically identified in the permit; or
  - b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.
3. A permit shield shall not alter or affect the following:
  - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;
  - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
  - d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

**G26. Severability**

1. The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

**G27. Property Rights**

1. The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

**G28. Transferability**

1. This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought consistent with the requirements of *567 IAC 22.111(1)*. *567 IAC 22.111 (1)"d"*

**G29. Disclaimer**

1. No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

**G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification**

1. The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of 567 – Chapter 23 or a permit condition. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.
2. Stack test notifications, reports and correspondence shall be sent to:  
Stack Test Review Coordinator  
Iowa DNR, Air Quality Bureau  
Wallace State Office Building  
502 E 9<sup>th</sup> St.  
Des Moines, IA 50319-0034  
(515) 725-9545
3. Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.  
*567 IAC 25.1(7)"a", 567 IAC 25.1(9)*

**G31. Prevention of Air Pollution Emergency Episodes**

1. The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons. *567 IAC 26.1(1)*

**G32. Contacts List**

1. The current address and phone number for reports and notifications to the EPA administrator is:  
Iowa Compliance Officer  
Air Branch  
Enforcement and Compliance Assurance Division  
U.S. EPA Region 7  
11201 Renner Blvd.  
Lenexa, KS 66219  
(913) 551-7020
2. The current address and phone number for reports and notifications to the department or the Director is:  
Chief, Air Quality Bureau  
Iowa Department of Natural Resources  
Wallace State Office Building  
502 E 9<sup>th</sup> St.  
Des Moines, IA 50319-0034  
(515) 725-8200
3. Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

**Field Office 1**

1101 Commercial Court, Suite 10  
Manchester, IA 52057  
(563) 927-2640

**Field Office 2**

2300-15th St., SW  
Mason City, IA 50401  
(641) 424-4073

**Field Office 3**

1900 N. Grand Ave.  
Spencer, IA 51301  
(712) 262-4177

**Field Office 4**

1401 Sunnyside Lane  
Atlantic, IA 50022  
(712) 243-1934

**Field Office 5**

Wallace State Office Building  
502 E 9<sup>th</sup> St.  
Des Moines, IA 50319-0034  
(515) 725-0268

**Field Office 6**

1023 West Madison Street  
Washington, IA 52353-1623  
(319) 653-2135

**Polk County Public Works Dept.**

Air Quality Division  
5885 NE 14th St.  
Des Moines, IA 50313  
(515) 286-3351

**Linn County Public Health**

Air Quality Branch  
1020 6<sup>th</sup> Street SE  
Cedar Rapids, IA 52401  
(319) 892-6000

## V. Appendix A: NESHAP

1. 40 CFR 63 Subpart ZZZZ – National Emission Standards for Hazardous Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)

<https://www.ecfr.gov/cgi-bin/text->

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