



**Bureau of Air Pollution Control**

901 SOUTH STEWART STREET SUITE 4001  
CARSON CITY, NEVADA 89701-5249  
p: 775-687-9350 • [www.ndep.nv.gov/bapc](http://www.ndep.nv.gov/bapc)

**Facility ID No. A1896**

**Permit No. AP7375-3672**

**CLASS I AIR QUALITY  
OPERATING PERMIT TO CONSTRUCT**

**Issued to:** SWITCH, LTD. (HEREINAFTER REFERRED TO AS PERMITTEE)  
**Mailing Address:** 7135 S DECATUR; LAS VEGAS, NV 89118  
**Physical Address:** 1 SUPERLOOP CIRCLE; MCCARRAN, NV 89434  
**Driving Directions:** APPROXIMATELY 15 MILES EAST OF RENO, NV; 30 MILES NORTHEAST OF CARSON CITY, NV; 4 MILES SOUTH OF I-80, WEST OF USA PKWY

**General Facility Location:**  
SECTIONS 10, 11, 13-16, 21-24, 26, 27, T 19 N, R 22 E, MDB&M  
HA 83 – TRACY SEGMENT OF TRUCKEE RIVER BASIN / STOREY COUNTY  
NORTH 4,377,021 M, EAST 286,947 M, UTM ZONE 11, NAD 83

**Emission Unit List:**

- System 01 – Diesel Fired Back-Up Generators (REVISED DATE, Air Case 12007)
- System 02 – Diesel Fired Fire Pumps (REVISED OCTOBER/2017)
- System 03 – Cooling Towers (MOVED TO NON-PERMIT EQUIPMENT LIST NOVEMBER/2018)
- System 04 – Diesel Fired Emergency Back-Up Generator (ADDED OCTOBER/2017)
- System 05 – Diesel Fired Emergency Back-Up Generator (ADDED OCTOBER/2017)
- System 06 – Emergency Generators (ADDED DATE, Air Case 12007)
- System 07 – Emergency Generators (ADDED DATE, Air Case 12007)

\*\*\* End of Emission Unit List\*\*\*



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**Section I. General Conditions**

A. Nevada Revised Statute (NRS) 445B.470

Prohibited Acts

*The Permittee* shall not knowingly:

1. Violate any applicable provision, the terms or conditions of any permit or any provision for the filing of information;
2. Fail to pay any fee;
3. Falsify any material statement, representation or certification in any notice or report; or
4. Render inaccurate any monitoring device or method, required pursuant to the provisions of NRS 445B.100 to 445B.450, inclusive, or NRS 445B.470 to 445B.640, inclusive, or any regulation adopted pursuant to those provisions.

B. Nevada Administrative Code (NAC) 445B.22013

Prohibited Discharge

*The Permittee* shall not cause or permit the discharge into the atmosphere from any stationary source of any hazardous air pollutant or toxic regulated air pollutant that threatens the health and safety of the general public, as determined by the Director.

C. NAC 445B.22017 (*Federally Enforceable SIP Requirement*)

Maximum Opacity

1. Except as otherwise provided in this section and NAC 445B.2202, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods:
  - a. If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A of 40 C.F.R. Part 60.
  - b. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 C.F.R. § 60.13(h).
2. The provisions of this section and NAC 445B.2202 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.

D. NAC 445B.22037 (*Federally Enforceable SIP Requirement*)

Fugitive Dust

1. *The Permittee* may not cause or permit the handling, transporting, or storing of any material in a manner that allows or may allow controllable particulate matter to become airborne.
2. Except as otherwise provided in subsection 4, *the Permittee* may not cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, “best practical methods” includes, but is not limited to, paving, chemical stabilization, watering, phased construction, and revegetation.
3. Except as provided in subsection 4, *the Permittee* may not disturb or cover 5 acres or more of land or its topsoil until *the Permittee* has obtained an operating permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.
4. The provisions of subsections 2 and 3 do not apply to:
  - a. Agricultural activities occurring on agricultural land; or
  - b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.



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**Section I. General Conditions (continued)**

E. NAC 445B.22067 (*Federally Enforceable SIP Requirement*)

Open Burning

The open burning of any combustible refuse, waste, garbage, oil, or for any salvage operations, except as specifically exempted (see NAC 445B.22067.2), is prohibited.

F. NAC 445B.22087

Odors

*The Permittee* may not discharge or cause to be discharged, from any stationary source, any material or regulated air pollutant which is or tends to be offensive to the senses, injurious or detrimental to health and safety, or which in any way interferes with or prevents comfortable enjoyment of life or property.

G. NAC 445B.225 (*Federally Enforceable SIP Requirement*)

Prohibited Conduct: Concealment of Emissions

*The Permittee* may not install, construct or use any device which conceals any emission without reducing the total release of regulated air pollutants to the atmosphere.

H. NAC 445B.252 (*Federally Enforceable SIP Requirement*)

Testing and Sampling

1. To determine compliance with [NAC 445B.001](#) to [445B.3497](#), inclusive, before the approval or the continuance of an operating permit or similar class of permits, the Director may either conduct or order the owner of any stationary source to conduct or have conducted such testing and sampling as the Director determines necessary. Testing and sampling or either of them must be conducted and the results submitted to the Director within 60 days after achieving the maximum rate of production at which the affected facility will be operated, but not later than 180 days after initial start-up of the facility and at such other times as may be required by the Director.
2. Tests of performance must be conducted and data reduced in accordance with the methods and procedures of the test contained in each applicable subsection of this section unless the Director:
  - a. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;
  - or
  - d. Waives the requirement for tests of performance because the owner or operator of a stationary source has demonstrated by other means to the Director's satisfaction that the affected facility is in compliance with the standard.
3. Tests of performance must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of start-up, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard.
4. The owner or operator of an affected facility shall give notice to the Director 30 days before the test of performance to allow the Director to have an observer present. A written testing procedure for the test of performance must be submitted to the Director at least 30 days before the test of performance to allow the Director to review the proposed testing procedures.
5. Each test of performance must consist of at least three separate runs using the applicable method for that test. Each run must be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the runs apply. In the event of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions or other circumstances with less than three valid samples being obtained, compliance may be determined using the arithmetic mean of the results of the other two runs upon the Director's approval.
6. All testing and sampling will be performed in accordance with recognized methods and as specified by the Director.
7. The cost of all testing and sampling and the cost of all sampling holes, scaffolding, electric power and other pertinent allied facilities as may be required and specified in writing by the Director must be provided and paid for by the owner of the stationary source.



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**Section I. General Conditions (continued)**

H. NAC 445B.252 (*Federally Enforceable SIP Requirement*) (continued)  
Testing and Sampling (continued)

8. All information and analytical results of testing and sampling must be certified as to their truth and accuracy and as to their compliance with all provisions of these regulations, and copies of these results must be provided to the Director no later than 60 days after the testing or sampling, or both.
9. Notwithstanding the provisions of subsection 2, the Director shall not approve an alternative method or equivalent method to determine compliance with a standard or emission limitation contained in Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations for:
  - a. An emission unit that is subject to a testing requirement pursuant to Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations; or
  - b. An affected source.

I. NAC 445B.273(1)  
Schedules for Compliance

**The Permittee** must comply with NAC 445B.001 to 445B.3689, inclusive. Existing stationary sources are in compliance with those sections and may continue to operate under the provisions of their approved compliance schedules, which may be amended from time to time.

J. NAC 445B.315(3)(i) (*Federally Enforceable SIP Requirement*)  
Fees

**The Permittee** shall pay fees to the Director in accordance with the provisions set forth in NAC 445B.327 and 445B.331.

K. NAC 445B.319 (*Federally Enforceable SIP Requirement*)  
Administrative Amendment

Any changes to the operating permit to construct will comply with all provisions established under NAC 445B.319.

L. NAC 445B.3265  
Revocation and Reissuance

1. An operating permit may be revoked if the control equipment is not operating.
2. An operating permit may be revoked by the Director upon determination that there has been a violation of NAC 445B.001 to 445B.3689, inclusive, or the provisions of 40 CFR Part 52.21, or 40 CFR Part 60 or 61, Prevention of Significant Deterioration, New Source Performance Standards, and National Emission Standards for Hazardous Air Pollutants, adopted by reference in NAC 445B.221.
3. The revocation is effective 10 days after the service of a written notice, unless a hearing is requested.



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**Section I. General Conditions (continued)**

M. NAC 445B.3365(2)(c) (*Federally Enforceable SIP Requirement*)

Severability

Each of the conditions and requirements of the operating permit to construct is severable and, if any are held invalid, the remaining conditions and requirements continue in effect.

N. NAC 445B.3365(2)(d) (*Federally Enforceable SIP Requirement*)

Noncompliance with Conditions

**The Permittee** shall comply with all conditions of this operating permit to construct. Any noncompliance constitutes a violation and is a ground for:

1. An action for noncompliance;
2. The revoking and reissuing, or the terminating, of the operating permit to construct by the Director; or
3. The reopening or revising of the operating permit to construct by the holder of the operating permit to construct as directed by the Director.

O. NAC 445B.3365(2)(e) (*Federally Enforceable SIP Requirement*)

Need to Halt or Reduce Activity to Maintain Compliance

The need to halt or reduce activity to maintain compliance with the conditions of the operating permit to construct is not a defense to noncompliance with any condition of the operating permit to construct.

P. NAC 445B.3365(2)(f) (*Federally Enforceable SIP Requirement*)

Revise, Revoke and Reissue, Reopen and Revise or Terminate

The Director may revise, revoke and reissue, reopen and revise, or terminate the operating permit to construct for cause.

Q. NAC 445B.3365(2)(g) (*Federally Enforceable SIP Requirement*)

Property Rights

The operating permit to construct does not convey any property rights or any exclusive privilege.

R. NAC 445B.3365(2)(h) (*Federally Enforceable SIP Requirement*)

Request for Information

**The Permittee** shall provide the Director, in writing and within a reasonable time, with any information that the Director requests to determine whether cause exists for revoking or terminating the operating permit to construct, or to determine compliance with the conditions of the operating permit to construct.

S. NAC 445B.3365(2)(i) (*Federally Enforceable SIP Requirement*)

Right to Entry

**The Permittee** shall allow the Director or any authorized representative of the Director, upon presentation of credentials, to:

1. Enter upon the premises of **the Permittee** where:
  - a. The stationary source is located;
  - b. Activity related to emissions is conducted; or
  - c. Records are kept pursuant to the conditions of the operating permit to construct.
2. Have access to and copy, during normal business hours, any records that are kept pursuant to the conditions of the operating permit to construct;
3. Inspect, at reasonable times, any facilities, practices, operations, or equipment, including any equipment for monitoring or controlling air pollution, that are regulated or required pursuant to the operating permit to construct; and
4. Sample or monitor, at reasonable times, substances or parameters to determine compliance with the conditions of the operating permit to construct or applicable requirements.



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**Section I. General Conditions (continued)**

T. NAC 445B.3365(2)(j) (*Federally Enforceable SIP Requirement*)

Certification

A responsible official of *the Permittee* shall certify that, based on information and belief formed after reasonable inquiry, the statements made in any document required to be submitted by any condition of the operating permit to construct are true, accurate and complete.

U. NAC 445B.342 (*Federally Enforceable SIP Requirement*)

Notification of Authorized Changes

Any changes to the operating permit to construct will comply with all provisions established under NAC 445B.342.

**\*\*\*End of General Conditions\*\*\***

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**Section II. General Construction Conditions**

A. NAC 445B.250 (*Federally Enforceable SIP Requirement*)

Notification

*The Permittee*, subject to the provisions of NAC 445B.001 to 4445B.3689, inclusive, shall furnish the Director written notification of:

1. The date that construction or reconstruction of **Systems 01-05** are commenced, postmarked no later than 30 days after such date. This requirement does not apply in the case of mass-produced facilities which are purchased in completed form.
2. The anticipated date of initial start-up of **Systems 01-05**, postmarked not more than 60 days and not less than 30 days before such date.
3. The actual date of initial start-up of **Systems 01-05**, postmarked within 15 days after such date.

B. 40 CFR Part 60.7

Notification

A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Director may request additional relevant information subsequent to this notice.

C. NAC 445B.3366 (*Federally Enforceable SIP Requirement*)

Expiration

1. If construction will occur in one phase, an operating permit to construct for a new or modified stationary source expires if construction is not commenced within 18 months after the date of issuance thereof or construction of the facility is delayed for 18 months after initiated. The Director may extend the date on which the construction may be commenced upon a showing that the extension is justified.
2. If construction will occur in more than one phase, the projected date of the commencement of construction of each phase of construction must be approved by the Director. An operating permit to construct expires if the initial phase of construction is not commenced within 18 months after the projected date of the commencement of construction approved by the Director. The Director may extend only the date on which the initial phase of construction may be commenced upon a showing that the extension is justified.
3. Except as otherwise provided in this subsection, an operating permit to construct expires if a complete application for a Class I operating permit or modification of an existing Class I operating permit is not submitted within 12 months after the date of initial start-up.

**\*\*\*End of General Construction Conditions\*\*\***





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**Section IIA. Specific Construction Requirements**

A. NAC 445B.22017; NAC 445B.252; NAC 445B.3365(3) (*Federally Enforceable SIP Requirement*)

Initial Performance Tests

1. The Permittee, after the date of issuance of this operating permit, shall conduct initial performance tests within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup. The Permittee shall follow the test methods and procedures referenced in **Tables IIA-1** below:

<b>Table IIA-1: Initial Performance/Compliance Testing</b>			
<b>Systems</b>	<b>Pollutants To Be Tested</b>	<b>Initial Testing Deadline</b>	<b>Testing Methods/Procedures</b>
<b>Systems 01, and 02, 04, 05, 06, and 07</b>	Opacity	Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup as required under 40 CFR Part 60.11.	Method 9 visible emissions reading. Visible emissions reading shall use the procedures contained in 40 CFR Part 60, Appendix A, Method 9.

2. Tests of performance, as specified in **Table IIA-1** above, must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252(3)).
3. The Permittee shall provide notification of the anticipated date for conducting the initial performance tests required in **Table IIA-1** above. The notification shall be postmarked not less than 30 days prior to such date; and include all equipment manufacturers, equipment model numbers, serial numbers and manufacturing year.
4. Within 60 days after completing the initial performance tests required in **Table IIA-1** above, the Permittee shall furnish the Director a written report of the results of the performance tests. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689, inclusive (NAC 445B.252(8)).
5. The Permittee shall comply with the requirements of Section I.H for all performance testing.

**\*\*\*End of Specific Construction Requirements\*\*\***





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**Section III. General Operating Conditions**

A. NAC 445B.227 (*Federally Enforceable SIP Requirement*)

Prohibited Conduct

*The Permittee* may not:

1. Operate a stationary source of air pollution unless the control equipment for air pollution that is required by applicable requirements or conditions of the permit is installed and operating.
2. Disconnect, alter, modify or remove any of the control equipment for air pollution or modify any procedure required by an applicable requirement or condition of the permit.

B. NAC 445B.232

Excess Emissions: Schedule Maintenance, Testing or Repairs; Notification of Director

1. Scheduled maintenance or testing or scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by [NAC 445B.001](#) to [445B.3689](#), inclusive, must be approved in advance by the Director and performed during a time designated by the Director as being favorable for atmospheric ventilation.
2. Each owner or operator shall notify the Director of the proposed time and expected duration at least 30 days before any scheduled maintenance or testing which may result in excess emissions of regulated air pollutants prohibited by [NAC 445B.001](#) to [445B.3689](#), inclusive. The scheduled maintenance or testing must not be conducted unless the scheduled maintenance or testing is approved pursuant to subsection 1.
3. Each owner or operator shall notify the Director of the proposed time and expected duration at least 24 hours before any scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by [NAC 445B.001](#) to [445B.3689](#), inclusive. The scheduled repairs must not be conducted unless the scheduled repairs are approved pursuant to subsection 1.
4. Each owner or operator shall notify the Director of any excess emissions within 24 hours after any malfunction or upset of the process equipment or equipment for controlling pollution or during start-up or shutdown of that equipment. Email to: [eenotify@ndep.nv.gov](mailto:eenotify@ndep.nv.gov).
5. Each owner or operator shall provide the Director, within 15 days after any malfunction, upset, start-up, shutdown or human error which results in excess emissions, sufficient information to enable the Director to determine the seriousness of the excess emissions. The information must include at least the following:
  - a. The identity of the stack or other point of emission, or both, where the excess emissions occurred.
  - b. The estimated magnitude of the excess emissions expressed in opacity or in the units of the applicable limitation on emission and the operating data and methods used in estimating the magnitude of the excess emissions.
  - c. The time and duration of the excess emissions.
  - d. The identity of the equipment causing the excess emissions.
  - e. If the excess emissions were the result of a malfunction, the steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunction.
  - f. The steps taken to limit the excess emissions.
  - g. Documentation that the equipment for controlling air pollution, process equipment or processes were at all times maintained and operated, to a maximum extent practicable, in a manner consistent with good practice for minimizing emissions.
6. Each owner or operator shall ensure that any notification or related information submitted to the Director pursuant to this section is provided in a format specified by the Director.



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**Section III. General Operating Conditions (continued)**

C. SIP 445.667 (*Federally Enforceable SIP Requirement*)

Excess Emissions: Scheduled Maintenance; Testing; Malfunctions

1. Scheduled maintenance or testing approved by the Director or repairs which may result in excess emissions of air contaminants prohibited by SIP 445.430 to 445.846, inclusive, must be performed during a time designated by the Director as being favorable for atmospheric ventilation.
2. The Director shall be notified in writing on the time and expected duration at least 24 hours in advance of any scheduled maintenance or repairs which may result in excess emissions of air contaminants prohibited by SIP 445.430 to 445.846, inclusive.
3. The Director must be notified within 24 hours after any malfunction, breakdown or upset of process or pollution control equipment or during startup of such equipment.
4. The owner or operator of an affected facility shall provide the Director, within 15 days after any malfunction, breakdown, upset, startup or human error sufficient information to enable the Director to determine the seriousness of the excess emissions. The submission must include as a minimum:
  - a. The identity of the stack and/or other emission point where the excess emission occurred.
  - b. The estimated magnitude of the excess emissions expressed in opacity or in the units of the applicable emission limitation and the operating data and methods used in estimating the magnitude of the excess emissions.
  - c. The time and duration of the excess emissions.
  - d. The identity of the equipment causing the excess emissions.
  - e. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunctions.
  - f. The steps taken to limit the excess emissions.
  - g. Documentation that the air pollution control equipment, process equipment or processes were at all times maintained and operated, to a maximum extent practicable, in a manner consistent with good practice for minimizing emissions.

D. SIP Article 2.5.4 (*Federally Enforceable SIP Requirement*)

Scheduled Maintenance, Testing, and Breakdown or Upset

Breakdown or upset, determined by the Director to be unavoidable and not the result of careless or marginal operations, shall not be considered a violation of the regulations.

**\*\*\*\*End of General Operating Conditions\*\*\*\***



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**CLASS I OPERATING PERMIT TO Construct**

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**Section IV. General Monitoring, Recordkeeping, and Reporting Requirements**

- A. NAC 445B.3365(2)(b) (*Federally Enforceable SIP Requirement*)

Records

*The Permittee* shall retain records of all required monitoring data and supporting information for 5 years from the date of the sample collection, measurement, report or analysis. Supporting information includes, but is not limited to, all records regarding calibration and maintenance of the monitoring equipment and all original strip-chart recordings for continuous monitoring instrumentation.

- B. NAC 445B.3365(2)(h) (*Federally Enforceable SIP Requirement*)

Information

*The Permittee* shall provide the Director, in writing and within a reasonable time, with any information that the Director requests to determine whether cause exists for revoking or terminating the operating permit to construct, or to determine compliance with the conditions of the operating permit to construct.

*The Permittee* will submit yearly reports including, but not limited to, throughput, production, fuel consumption, hours of operation, and emissions. These reports will be submitted on the form provided by the Bureau of Air Pollution Control for all emission units/systems specified on the form. The completed form must be submitted to the Bureau of Air Pollution Control no later than March 1 annually for the preceding calendar year, unless otherwise approved by the Bureau of Air Pollution Control.

- C. NAC 445B.265(1) (*Federally Enforceable SIP Requirement*)

Records of the Occurrence and Duration of Any Start-Up, Shutdown or Malfunction

*The Permittee* subject to the provisions of NAC 445B.256 to 445B.267, inclusive, shall maintain records of the occurrence and duration of any start-up, shutdown or malfunction in the operation of an affected facility and any malfunction of the air pollution control equipment or any periods during which a continuous monitoring system or monitoring device is inoperative.

**\*\*\*End of General Monitoring, Recordkeeping, Reporting, and Requirements\*\*\***



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**Section V. Specific Operating Conditions**

**A. System 01 (Various Units)**

**Various Locations, UTM (Zone 11, NAD 83)**

**System 01 – Diesel Fired Back-Up Generators (REVISED DATE, Air Case 12007)**

1. Air Pollution Control Equipment (NAC 445B.3405) (*Federally Enforceable SIP Requirement*)  
**Each unit in System 01** has no add-on controls.
  
2. Operating Parameters (NAC 445B.3405) (*Federally Enforceable SIP Requirement*)
  - a. **Each unit in System 01** shall combust Diesel only.
  - b. The maximum allowable fuel consumption rate for **each unit in System 01** shall not exceed **186.0 gallons per hour, averaged over a calendar day, nor more than 11,360.9 gallons per 12-month rolling period of non-emergency use.**
  - c. Hours:
    - (1) **Each unit in System 01** shall not operate more than **13** hours per day, with operation limited to the hours between **6:00 am through 7:00 pm**, during **75%** power load.
    - (2) **Each unit in System 01** shall not operate more than **13** hours per day, with operation limited to the hours between **6:00 am through 7:00 pm**, during **10%** power load.
    - (3) **The combined units in System 01** shall not operate more than **7,879.0** hours per 12-month rolling period for testing, maintenance, and non-emergency operations.
    - (4) Planned and predictable maintenance activities at **100%** power load for **each unit in System 01** shall not exceed **5** hours per 12-month rolling period.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405) (*Federally Enforceable SIP Requirement*)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **each unit in System 01** the following pollutants in excess of the following specified limits:

  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed:
    - (1) **0.40** pounds per hour, during **100%** power load;
    - (2) **0.40** pounds per hour, during **75%** power load; and
    - (3) **0.38** pounds per hour, during **10%** power load.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed:
    - (1) **0.40** pounds per hour, during **100%** power load;
    - (2) **0.40** pounds per hour, during **75%** power load; and
    - (3) **0.38** pounds per hour, during **10%** power load.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed:
    - (1) **0.40** pounds per hour, during **100%** power load;
    - (2) **0.40** pounds per hour, during **75%** power load; and
    - (3) **0.38** pounds per hour, during **10%** power load.



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**Section V. Specific Operating Conditions (continued)**

**A. System 01 (Various Units) (continued)**

**3. Emission Limits** (NAC 445B.305, NAC 445B.3405) (*Federally Enforceable SIP Requirement*) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **each unit in System 01** the following pollutants in excess of the following specified limits: (continued)

- d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed:
  - (1) **0.040** pounds per hour, during **100%** power load;
  - (2) **0.030** pounds per hour, during **75%** power load; and
  - (3) **0.0080** pounds per hour, during **10%** power load.
- e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed:
  - (1) **51.8** pounds per hour, during **100%** power load;
  - (2) **26.9** pounds per hour, during **75%** power load; and
  - (3) **4.65** pounds per hour, during **10%** power load.
- f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed:
  - (1) **3.32** pounds per hour, during **100%** power load;
  - (2) **3.48** pounds per hour, during **75%** power load; and
  - (3) **2.59** pounds per hour, during **10%** power load.
- g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **2.54** pounds per hour.
- h. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **combined units in System 01** the following pollutants in excess of the following specified limits:
  - (1) The discharge of **PM** to the atmosphere shall not exceed **1.58** tons per 12-month rolling period.
  - (2) The discharge of **PM<sub>10</sub>** to the atmosphere shall not exceed **1.58** tons per 12-month rolling period.
  - (3) The discharge of **PM<sub>2.5</sub>** to the atmosphere shall not exceed **1.58** tons per 12-month rolling period.
  - (4) The discharge of **SO<sub>2</sub>** to the atmosphere shall not exceed **0.11** tons per 12-month rolling period.
  - (5) The discharge of **NO<sub>x</sub>** to the atmosphere shall not exceed **97.6** tons per 12-month rolling period.
  - (6) The discharge of **CO** to the atmosphere shall not exceed **13.44** tons per 12-month rolling period.
  - (7) The discharge of **VOC** to the atmosphere shall not exceed **6.91** tons per 12-month rolling period.
- i. NAC 445B.22017 – The opacity from **each unit in System 01** shall not equal or exceed **20** percent.
- j. NAC 445B.2203 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **each unit in System 01** shall not exceed **0.47** pounds per MMBtu.
- k. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **each unit in System 01** shall not exceed **19.8** pounds per hour.



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**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**A. System 01 (Various Units) (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (*Federally Enforceable SIP Requirement*)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.

- a. Monitor and record the consumption rate of **diesel** for each clock hour for **each unit in System 01** (in gallons) by use of a fuel flow meter.
- b. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
- c. In accordance with NAC 445B.264.2 (Monitoring systems: Recordation of data), monitor and record the percentage load at **each unit in System 01** with four or more data points equally spaced over each 1-hour period. The hourly percentage load will be determined from the average of data points over the 1-hour period and rounded up to the nearest permitted power load of 10%, 75%, or 100%.
- d. Install a monitoring alarm system, Mission Critical Monitoring (MCM), prior to startup of **each unit in System 01** which must operate at all times to ensure 75% power load is not exceeded from **each unit in System 01** except during planned and predictable maintenance activities. At an exceedance of 70% power load from **each unit in System 01**, record the notification that is sent to the Permittee.
- e. Monitor and record the hours of operation for **each unit in System 01** for emergency and non-emergency operation for each calendar day. For non-emergency operation, monitor and record the hours of operation for each power percentage load of 10%, 75%, and 100% from the monitoring system described in **A.4.c.** of this section on a daily basis.
- f. Record the hours of operation as specified in **A.4.e.** of this section for the permitted power loads of 10%, 75%, and 100% at the end of each calendar month.
- g. Record the hours of operation per calendar year for each permitted power load of 10%, 75%, and 100% by adding the hours of each separate permitted power load of 10%, 75%, and 100% per calendar month from **A.4.f.** of this section for each calendar year as required in **A.2.e.** of this section.
- h. Record the 12-month rolling hours of operation at the end of each calendar month for each permitted power load of 10%, 75%, and 100% by adding the hours of each separate permitted power load of 10%, 75%, and 100% per calendar month from **A.4.f.** of this section for each 12-month rolling period.
- i. Determine the 12-month rolling emissions for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, and CO by multiplying the pound per hour emission limits at each permitted power load of 10%, 75%, and 100% as specified in **A.3.a.-f.** of this section by the 12-month rolling hours from **A.4.h.** of this section, adding the emissions at each permitted power load of 10%, 75%, and 100%, and converting to tons as required in **A.3.j** of this section.
- j. Determine the 12-month rolling emissions for VOC by multiplying the pound per hour emission limit as specified in **A.3.g.** of this section by the total hours within the 12-month rolling period from **A.4.h** of this section and converting to tons as required in **A.3.h.(7)** of this section.
- k. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))





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**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**A. System 01 (Various Units) (continued)**

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
  - a. Emission Standards (40 CFR 60.4205)  
The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b))
    - (1) For a 2011 model year and later Tier 2 non-road engine with a rated power greater than 560 kW (751 hp): (40 CFR 60.4202(b)(2), 40 CFR 89.112 Table 1), the discharge of the following pollutants from the exhaust each **unit in System 01** shall not exceed the following:
      - (a) The discharge of **PM** to the atmosphere shall not exceed **0.2** grams/kW-hr.
      - (b) The discharge of **CO** to the atmosphere shall not exceed **3.5** grams/kW-hr.
      - (c) The discharge of **NMHC** (non-methane hydrocarbon) + **NO<sub>x</sub>** to the atmosphere shall not exceed **6.4** grams/kW-hr.
    - (2) Exhaust opacity must not exceed: (40 CFR 60.4202(a)(2), 40 CFR 89.113(a))
      - (a) **20** percent during acceleration mode;
      - (b) **15** percent during the lugging mode; and
      - (c) **50** percent during the peaks in either the acceleration or lugging modes.
  - b. Fuel Requirements (40 CFR 60.4207)  
The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207(b), 40 CFR 80.510(b))
    - (1) Sulfur content to be **15** parts per million (ppm) maximum.
    - (2) A minimum cetane index of **40**; or
    - (3) A maximum aromatic content of **35** volume percent.
  - c. Monitoring Requirements (40 CFR 60.4209)  
If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
    - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
    - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89. (40 CFR 60.4211(a))
    - (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **A.5.d.(5)** of this section. (40 CFR 60.4211(c))





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**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**A. System 01 (Various Units) (continued)**

5. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)
    - (4) In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs **A.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **A.5.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))
      - (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))
      - (b) The Permittee may operate the Permittee's emergency stationary ICE for any combination of the purposes specified in paragraphs **A.5.d.(4)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **A.5.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
        - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
      - (c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph **A.5.d.(4)(b)** of this section. Except as provided in paragraph **A.5.d.(4)(c)** of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))
        - i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))
    - (5) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 4211(g))
      - (a) For CI ICE greater than 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. The Permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. (40 CFR 60.4211(g)(3))



**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**A. System 01 (Various Units) (continued)**

5. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:  
If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

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**CLASS I OPERATING PERMIT TO Construct**

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**Section V. Specific Operating Conditions (continued)**

**B. System 02 (Various Units)**

**Various Locations, UTM (Zone 11, NAD 83)**

**System 02 – Fire Pump Engines (REVISED OCTOBER/2017)**

1. Air Pollution Control Equipment (Federally Enforceable SIP Requirement)

**Each engine in System 02** has no add-on controls.

Descriptive Stack Parameters for each unit in System 02:

Stack Height (ft): 9

Stack Diameter (ft): 0.5

Stack Temperature (°F): 848

2. Operating Parameters (NAC 445B.3365(3)) (Federally Enforceable SIP Requirement)

a. **Each unit in System 02** shall combust #2 Distillate Fuel Oil only.

b. **Each unit in System 02** shall not combust more than **10.3** gallons #2 Distillate Fuel Oil per any one-hour period.

c. The sulfur content of the #2 Distillate Fuel Oil combusted in **each unit in System 02** will not exceed **15** ppm by weight.

d. Hours:

**Each unit in System 02** shall not operate more than **50** hours per 12-month rolling period.

3. Emission Limits (NAC 445B.305, NAC 445B.3365.3) (Federally Enforceable SIP Requirement)

a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **each unit in System 02** the following pollutants in excess of the following specified limits:

(1) The discharge of PM (particulate matter) to the atmosphere shall not exceed **0.04** pound per hour, nor more than **0.001** ton per 12-month rolling period.

(2) The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.04** pound per hour, nor more than **0.001** ton per 12-month rolling period.

(3) Federally Enforceable SIP Requirement NAC 445B.2203 (Emissions of particulate matter: Fuel-burning equipment) does not apply to combustion units with heat input less than 4 million Btu per hour.

(4) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.04** pound per hour, nor more than **0.001** ton per 12-month rolling period.

(5) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere shall not exceed **0.003** pound per hour, nor more than **0.0001** ton per 12-month rolling period.

(6) The maximum allowable discharge of sulfur to the atmosphere shall not exceed **1.01** pounds per hour in accordance with Federally Enforceable SIP Requirement NAC 445B.22047.

(7) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere shall not exceed **1.17** pounds per hour, nor more than **0.03** ton per 12-month rolling period.

(8) The discharge of CO (carbon monoxide) to the atmosphere shall not exceed **0.28** pound per hour, nor more than **0.01** ton per 12-month rolling period.

(9) The discharge of VOC (volatile organic compounds) to the atmosphere shall not exceed **0.52** pound per hour, nor more than **0.01** ton per 12-month rolling period.

(10) The opacity shall not equal or exceed **20** percent in accordance with Federally Enforceable SIP Requirement NAC 445B.22017.



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**Section V. Specific Operating Conditions (continued)**

**B. System 02 (Various Units) (continued)**

4. Monitoring (NAC 445B.3365(3)) (*Federally Enforceable SIP Requirement*)
  - a. The Permittee, upon the issuance date of this operating permit, shall:
    - (1) Monitor and record the hours of operation for **each unit in System 02** for emergency and non-emergency operation for each day of operation.
    - (2) Record the hours of operation as specified in **B.4.a.(1)** of this section at the end of each calendar month.
    - (3) Record the hours of operation per 12-month rolling as required in **B.2.d.** of this section.
    - (4) Determine the 12-month rolling emissions by multiplying the pound per hour emission limit as specified in **B.3.a.** of this section by the hours within the 12-month rolling period from **B.4.a.(3)** of this section and converting to tons as required in **B.3.a.** of this section.
5. Recordkeeping (NAC 445B.3365(3)) (*Federally Enforceable SIP Requirement*)
  - a. The Permittee will maintain, in a contemporaneous log, the monitoring required in **B.4.a.** of this section, so as to include the calendar date of the required monitoring.
  - b. The Permittee will maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
6. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

  - a. Emission Standards (40 CFR 60.4205)

The Permittee must comply with the emissions standards in table 4 of 40 CFR Part 60 Subpart IIII, for all pollutants, for fire pump engines with a displacement of less than 30 liters per cylinder. (40 CFR 60.4205(c))

    - (1) The discharge of NMHC (non-methane hydrocarbon) + NO<sub>x</sub> to the atmosphere shall not exceed **4.0** grams/KW-hr (1.38 pounds per hour).
    - (2) The discharge of PM to the atmosphere shall not exceed **0.20** grams/KW-hr (0.07 pounds per hour).
  - b. Fuel Requirements (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for fire pump engines: (40 CFR 60.4207(b), 40 CFR 80.510(b))

    - (1) Sulfur content to be **15** parts per million (ppm) maximum.
    - (2) A minimum cetane index of **40**; or
    - (3) A maximum aromatic content of **35** volume percent.
  - c. Monitoring Requirements (40 CFR 4209)

If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
    - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
    - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89. (40 CFR 60.4211(a))
    - (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **B.6.d.(5)** of this section. (40 CFR 60.4211(c))



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**Section V. Specific Operating Conditions (continued)**

**B. System 02 (Various Units) (continued)**

6. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)
    - (4) In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs **B.6.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **B.6.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))
      - (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))
      - (b) The Permittee may operate the Permittee's emergency stationary ICE for any combination of the purposes specified in paragraphs **B.6.d.(4)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **B.6.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
        - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
      - (c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph **B.6.d.(4)(b)** of this section. Except as provided in paragraph **B.6.d.(4)(c)** of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))
        - i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))
    - (5) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 60.4211(g))
      - (a) For CI ICE greater than 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. The Permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. (40 CFR 60.4211(g)(3))



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**Section V. Specific Operating Conditions (continued)**

**B. System 02 (Various Units) (continued)**

6. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:  
If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

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**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

C. System 03 (Various Units)

Various Locations, UTM (Zone 11, NAD 83)

**System 03 – Cooling Towers (MOVED TO NON-PERMIT EQUIPMENT LIST NOVEMBER/2018)**

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**CLASS I OPERATING PERMIT TO Construct**

Issued to: Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

D. System 04

Location UTM (Zone 11, NAD 83)

**System 04 – Diesel Fired Emergency Back-Up Generator (ADDED OCTOBER/2017)**

1. Air Pollution Control Equipment (*Federally Enforceable SIP Requirement*)  
**System 04** has no add-on controls.

Descriptive Stack Parameters from System 04:

Stack Height (ft): 12.19

Stack Diameter (ft): 0.5

Stack Temperature (°F): 386.6

2. Operating Parameters (NAC 445B.3365(3)) (*Federally Enforceable SIP Requirement*)
- a. **System 04** shall combust #2 Distillate Fuel Oil only.
  - b. **System 04** shall not combust more than **37.1** gallons #2 Distillate Fuel Oil per any one-hour period.
  - c. The sulfur content of the #2 Distillate Fuel Oil combusted in **System 04** will not exceed **15** ppm by weight.
  - d. Hours:  
**System 04** shall not operate more than **100** hours per calendar year.

3. Emission Limits (NAC 445B.305, NAC 445B.3365.3) (*Federally Enforceable SIP Requirement*)
- a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **System 04** the following pollutants in excess of the following specified limits:
    - (1) The discharge of PM (particulate matter) to the atmosphere shall not exceed **0.10** pound per hour, nor more than **0.01** ton per 12-month rolling period.
    - (2) The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.10** pound per hour, nor more than **0.01** ton per 12-month rolling period.
    - (3) The maximum allowable discharge of PM<sub>10</sub> to the atmosphere will not exceed **0.60** pound per million Btu in accordance with Federally Enforceable SIP Requirement NAC 445B.2203.
    - (4) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.10** pound per hour, nor more than **0.01** ton per 12-month rolling period.
    - (5) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere shall not exceed **0.18** pound per hour, nor more than **0.01** ton per 12-month rolling period.
    - (6) The maximum allowable discharge of sulfur to the atmosphere shall not exceed **3.64** pounds per hour in accordance with Federally Enforceable SIP Requirement NAC 445B.22047.
    - (7) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere shall not exceed **9.10** pounds per hour, nor more than **0.45** ton per 12-month rolling period.
    - (8) The discharge of CO (carbon monoxide) to the atmosphere shall not exceed **0.70** pound per hour, nor more than **0.03** ton per 12-month rolling period.
    - (9) The discharge of VOC (volatile organic compounds) to the atmosphere shall not exceed **0.47** pound per hour, nor more than **0.02** ton per 12-month rolling period.
    - (10) The opacity shall not equal or exceed **20** percent in accordance with Federally Enforceable SIP Requirement NAC 445B.22017.



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**Permit No. AP7375-3672**

**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**F. System 04 (continued)**

4. Monitoring (NAC 445B.3365(3)) (*Federally Enforceable SIP Requirement*)
  - a. The Permittee, upon the issuance date of this operating permit, shall:
    - (1) Monitor and record the hours of operation for **System 04** for emergency and non-emergency operation for each day of operation.
    - (2) Record the hours of operation as specified in **D.4.a.(1)** of this section at the end of each calendar month.
    - (3) Record the hours of operation per calendar year from **D.4.a.(2)** of this section for each calendar year as required in **D.2.d.** of this section.
    - (4) Record the 12-month rolling hours of operation at the end of each calendar month.
    - (5) Determine the 12-month rolling emissions by multiplying the pound per hour emission limit as specified in **D.3.a.** of this section by the hours within the 12-month rolling period from **D.4.a.(4)** of this section and converting to tons as required in **D.3.a.** of this section.
5. Recordkeeping (NAC 445B.3365(3)) (*Federally Enforceable SIP Requirement*)
  - a. The Permittee will maintain, in a contemporaneous log, the monitoring required in **D.4.a.** of this section, so as to include the calendar date of the required monitoring.
  - b. The Permittee will maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
6. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

  - a. Emission Standards (40 CFR 60.4205)

The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b))

    - (1) For a 2007 model year and later Tier 2 non-road engine with a rated power greater than 560 kW (750 hp): (40 CFR 60.4202(a), 40 CFR 89.112 Table 1), the discharge of the following pollutants from the exhaust of **System 04** shall not exceed the following:
      - (a) The discharge of PM to the atmosphere shall not exceed **0.20** grams/kW-hr (0.27 pounds per hour).
      - (b) The discharge of CO to the atmosphere shall not exceed **3.5** grams/kW-hr (4.73 pounds per hour).
      - (c) The discharge of NMHC (non-methane hydrocarbon) + NO<sub>x</sub> to the atmosphere shall not exceed **6.4** grams/kW-hr (8.64 pounds per hour).
    - (2) Exhaust opacity must not exceed: (40 CFR 60.4202(a)(1)(i), 40 CFR 89.113(a))
      - (a) **20** percent during acceleration mode;
      - (b) **15** percent during the lugging mode; and
      - (c) **50** percent during the peaks in either the acceleration or lugging modes.
  - b. Fuel Requirements (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207(b), 40 CFR 80.510(b))

    - (1) Sulfur content to be **15** parts per million (ppm) maximum.
    - (2) A minimum cetane index of **40**; or
    - (3) A maximum aromatic content of **35** volume percent.
  - c. Monitoring Requirements (40 CFR 60.4209)

If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))



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**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**F. System 04 (continued)**

6. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
    - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
    - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89. (40 CFR 60.4211(a))
    - (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **D.6.d.(5)** of this section. (40 CFR 60.4211(c))
    - (4) In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs **D.6.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **D.6.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))
      - (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))
      - (b) The Permittee may operate the Permittee's emergency stationary ICE for any combination of the purposes specified in paragraphs **D.6.d.(4)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **D.6.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
        - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
    - (c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph **D.6.d.(4)(b)** of this section. Except as provided in paragraph **D.6.d.(4)(c)** of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))
      - i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))



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**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**F. System 04 (continued)**

6. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)
    - (5) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 4211(g))
      - (a) For CI ICE greater than 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. The Permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. (40 CFR 60.4211(g)(3))
  - e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:  
If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))



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**Section V. Specific Operating Conditions (continued)**

E. System 05

Location UTM (Zone 11, NAD 83)

**System 05 – Diesel Fired Emergency Back-Up Generator (ADDED OCTOBER/2017)**

1. Air Pollution Control Equipment (Federally Enforceable SIP Requirement)  
**System 05** has no add-on controls.

Descriptive Stack Parameters from System 05:

Stack Height (ft): 13.3

Stack Diameter (ft): 0.83

Stack Temperature (°F): 473

2. Operating Parameters (NAC 445B.3365(3)) (Federally Enforceable SIP Requirement)
- a. **System 05** shall combust #2 Distillate Fuel Oil only.
  - b. **System 05** shall not combust more than **57.8** gallons #2 Distillate Fuel Oil per any one-hour period.
  - c. The sulfur content of the #2 Distillate Fuel Oil combusted in **System 05** will not exceed **15** ppm by weight.
  - d. Hours:  
**System 05** shall not operate more than **100** hours per calendar year.

3. Emission Limits (NAC 445B.305, NAC 445B.3365.3) (Federally Enforceable SIP Requirement)
- a. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **System 05** the following pollutants in excess of the following specified limits:
    - (1) The discharge of PM (particulate matter) to the atmosphere shall not exceed **0.08** pound per hour, nor more than **0.004** ton per 12-month rolling period.
    - (2) The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.08** pound per hour, nor more than **0.004** ton per 12-month rolling period.
    - (3) The maximum allowable discharge of PM<sub>10</sub> to the atmosphere will not exceed **0.60** pound per million Btu in accordance with Federally Enforceable SIP Requirement NAC 445B.2203.
    - (4) The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.08** pound per hour, nor more than **0.004** ton per 12-month rolling period.
    - (5) The discharge of SO<sub>2</sub> (sulfur dioxide) to the atmosphere shall not exceed **0.01** pound per hour, nor more than **0.001** ton per 12-month rolling period.
    - (6) The maximum allowable discharge of sulfur to the atmosphere shall not exceed **5.66** pounds per hour in accordance with Federally Enforceable SIP Requirement NAC 445B.22047.
    - (7) The discharge of NO<sub>x</sub> (nitrogen oxides) to the atmosphere shall not exceed **12.17** pounds per hour, nor more than **0.61** ton per 12-month rolling period.
    - (8) The discharge of CO (carbon monoxide) to the atmosphere shall not exceed **1.18** pound per hour, nor more than **0.06** ton per 12-month rolling period.
    - (9) The discharge of VOC (volatile organic compounds) to the atmosphere shall not exceed **0.73** pound per hour, nor more than **0.04** ton per 12-month rolling period.
    - (10) The opacity shall not equal or exceed **20** percent in accordance with Federally Enforceable SIP Requirement NAC 445B.22017.





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**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**G. System 05 (continued)**

4. Monitoring (NAC 445B.3365(3)) (*Federally Enforceable SIP Requirement*)
  - a. The Permittee, upon the issuance date of this operating permit, shall:
    - (1) Monitor and record the hours of operation for **System 05** for emergency and non-emergency operation for each day of operation.
    - (2) Record the hours of operation as specified in **E.4.a.(1)** of this section at the end of each calendar month.
    - (3) Record the hours of operation per calendar year from **E.4.a.(2)** of this section for each calendar year as required in **E.2.d.** of this section.
    - (4) Record the 12-month rolling hours of operation at the end of each calendar month.
    - (5) Determine the 12-month rolling emissions by multiplying the pound per hour emission limit as specified in **E.3.a.** of this section by the hours within the 12-month rolling period from **E.4.a.(4)** of this section and converting to tons as required in **E.3.a.** of this section.
5. Recordkeeping (NAC 445B.3365(3)) (*Federally Enforceable SIP Requirement*)
  - a. The Permittee will maintain, in a contemporaneous log, the monitoring required in **E.4.a.** of this section, so as to include the calendar date of the required monitoring.
  - b. The Permittee will maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
6. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*)

New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

  - a. Emission Standards (40 CFR 60.4205)

The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b))

    - (1) For a 2007 model year and later Tier 2 non-road engine with a rated power less than/greater than 560 kW (750 hp): (40 CFR 60.4202(a), 40 CFR 89.112 Table 1), the discharge of the following pollutants from the exhaust of **System 05** shall not exceed the following:
      - (a) The discharge of PM to the atmosphere shall not exceed **0.20** grams/kW-hr (0.39 pounds per hour).
      - (b) The discharge of CO to the atmosphere shall not exceed **3.5** grams/kW-hr (754.63 pounds per hour).
      - (c) The discharge of NMHC (non-methane hydrocarbon) + NO<sub>x</sub> to the atmosphere shall not exceed **6.4** grams/kW-hr (12.55 pounds per hour).
    - (2) Exhaust opacity must not exceed: (40 CFR 60.4202(a)(1)(i), 40 CFR 89.113(a))
      - (a) **20** percent during acceleration mode;
      - (b) **15** percent during the lugging mode; and
      - (c) **50** percent during the peaks in either the acceleration or lugging modes.
  - b. Fuel Requirements (40 CFR 60.4207)

The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207(b), 40 CFR 80.510(b))

    - (1) Sulfur content to be **15** parts per million (ppm) maximum.
    - (2) A minimum cetane index of **40**; or
    - (3) A maximum aromatic content of **35** volume percent.
  - c. Monitoring Requirements (40 CFR 60.4209)

If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))



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**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**G. System 05 (continued)**

6. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
    - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
    - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89. (40 CFR 60.4211(a))
    - (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **E.6.d.(5)** of this section. (40 CFR 60.4211(c))
    - (4) In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs **E.6.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **E.6.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))
      - (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))
      - (b) The Permittee may operate the Permittee's emergency stationary ICE for any combination of the purposes specified in paragraphs **E.6.d.(4)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **E.6.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
        - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
    - (c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph **E.6.d.(4)(b)** of this section. Except as provided in paragraph **E.6.d.(4)(c)** of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))
      - i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))





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**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**G. System 05 (continued)**

6. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)
    - (5) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 4211(g))
      - (a) For CI ICE greater than 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. The Permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. (40 CFR 60.4211(g)(3))
  - e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:  
If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))



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**Section V. Specific Operating Conditions (continued)**

**F. System 06 (Various Units)**

Various Locations, UTM (Zone 11, NAD 83)

**System 06 – Emergency Generators (ADDED DATE, Air Case 12007)**

1. Air Pollution Control Equipment (NAC 445B.3405)  
Each unit in System 06 has no add-on controls.
  
2. Operating Parameters (NAC 445B.3405) (*Federally Enforceable SIP Requirement*)
  - a. Each unit in System 06 may consume only diesel.
  - b. The maximum allowable fuel consumption rate for each unit in System 06 shall not exceed 257.5 gallons per clock hour, nor more than 10,578.8 gallons per 12-month rolling period of non-emergency use.
  - c. Hours:
    - (1) Each unit in System 06 shall not operate more than 13 hours per day, with operation limited to the hours between 6:00 am through 7:00 pm, during 100% power load.
    - (2) Each unit in System 06 shall not operate more than 13 hours per day, with operation limited to the hours between 6:00 am through 7:00 pm, during 3% power load.
    - (3) The combined units in System 06 shall not operate more than 8,380.0 hours per 12-month rolling period for testing, maintenance, and non-emergency operations.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405) (*Federally Enforceable SIP Requirement*)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from each unit in System 06 the following pollutants in excess of the following specified limits:

  - a. The discharge of PM (particulate matter) to the atmosphere shall not exceed:
    - (1) 0.33 pounds per hour, during 100% power load; and
    - (2) 0.12 pounds per hour, during 3% power load.
  - b. The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed:
    - (1) 0.33 pounds per hour, during 100% power load; and
    - (2) 0.12 pounds per hour, during 3% power load.
  - c. The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed:
    - (1) 0.33 pounds per hour, during 100% power load; and
    - (2) 0.12 pounds per hour, during 3% power load.



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**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**F. System 06 (Various Units) (continued)**

**3. Emission Limits** (NAC 445B.305, NAC 445B.3405) (*Federally Enforceable SIP Requirement*) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **each unit in System 06** the following pollutants in excess of the following specified limits: (continued)

- d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed:
  - (1) **0.061** pounds per hour, during **100%** power load; and
  - (2) **0.0018** pounds per hour, during **3%** power load.
- e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed:
  - (1) **58.8** pounds per hour, during **100%** power load; and
  - (2) **2.37** pounds per hour, during **3%** power load.
- f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed:
  - (1) **1.66** pounds per hour, during **100%** power load; and
  - (2) **1.37** pounds per hour, during **3%** power load.
- g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed:
  - (1) **2.90** pounds per hour, during **100%** power load; and
  - (2) **1.27** pounds per hour, during **3%** power load.
- h. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **combined units in System 06** the following pollutants in excess of the following specified limits:
  - (1) The discharge of **PM** to the atmosphere shall not exceed **2.36** tons per 12-month rolling period.
  - (2) The discharge of **PM<sub>10</sub>** to the atmosphere shall not exceed **2.36** tons per 12-month rolling period.
  - (3) The discharge of **PM<sub>2.5</sub>** to the atmosphere shall not exceed **2.36** tons per 12-month rolling period.
  - (4) The discharge of **SO<sub>2</sub>** to the atmosphere shall not exceed **0.11** tons per 12-month rolling period.
  - (5) The discharge of **NO<sub>x</sub>** to the atmosphere shall not exceed **72.3** tons per 12-month rolling period.
  - (6) The discharge of **CO** to the atmosphere shall not exceed **14.1** tons per 12-month rolling period.
  - (7) The discharge of **VOC** to the atmosphere shall not exceed **10.9** tons per 12-month rolling period.
- i. NAC 445B.22017 – The opacity from **each unit in System 06** shall not equal or exceed **20** percent.
- j. NAC 445B.2203 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **each unit in System 06** shall not exceed **0.45** pounds per MMBtu.
- k. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **each unit in System 06** shall not exceed **24.7** pounds per hour.



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**Permit No. AP7375-3672**

**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**F. System 06 (Various Units) (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (*Federally Enforceable SIP Requirement*)  
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the consumption rate of **diesel** for each clock hour for **each unit in System 06** (in gallons) by use of a fuel flow meter.
  - b. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
  - c. In accordance with NAC 445B.264.2 (Monitoring systems: Recordation of data), monitor and record the percentage load at **each unit in System 06** with four or more data points equally spaced over each 1-hour period. The hourly percentage load will be determined from the average of data points over the 1-hour period and rounded up to the nearest permitted power load of 3% or 100%.
  - d. Monitor and record the total daily hours of operation for **each unit in System 06** for each calendar day of operation. The Permittee shall note which hours of operation are emergency hours, and which hours of operation are hours for non-emergency use.
  - e. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.
  - f. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
  
5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
  - a. Emission Standards (40 CFR 60.4205)  
The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b))
    - (1) For a 2011 model year and later Tier 2 non-road engine with a rated power greater than 560 kW (751 hp): (40 CFR 60.4202(b)(2), 40 CFR 89.112 Table 1), the discharge of the following pollutants from the exhaust each **unit in System 06** shall not exceed the following:
      - (a) The discharge of **PM** to the atmosphere shall not exceed **0.2** grams/kW-hr.
      - (b) The discharge of **CO** to the atmosphere shall not exceed **3.5** grams/kW-hr.
      - (c) The discharge of **NMHC** (non-methane hydrocarbon) + **NO<sub>x</sub>** to the atmosphere shall not exceed **6.4** grams/kW-hr.
    - (2) Exhaust opacity must not exceed: (40 CFR 60.4202(a)(2), 40 CFR 89.113(a))
      - (a) **20** percent during acceleration mode;
      - (b) **15** percent during the lugging mode; and
      - (c) **50** percent during the peaks in either the acceleration or lugging modes.
  - b. Fuel Requirements (40 CFR 60.4207)  
The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207(b), 40 CFR 80.510(b))
    - (1) Sulfur content to be **15** parts per million (ppm) maximum.
    - (2) A minimum cetane index of **40**; or
    - (3) A maximum aromatic content of **35** volume percent.



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**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**F. System 06 (Various Units) (continued)**

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - c. Monitoring Requirements (40 CFR 60.4209)  
If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
    - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
    - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89. (40 CFR 60.4211(a))
    - (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **F.5.d.(5)** of this section. (40 CFR 60.4211(c))
    - (4) In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs **F.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **F.5.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))
      - (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))
      - (b) The Permittee may operate the Permittee's emergency stationary ICE for any combination of the purposes specified in paragraphs **F.5.d.(4)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **F.5.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
        - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
    - (c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph **F.5.d.(4)(b)** of this section. Except as provided in paragraph **F.5.d.(4)(c)** of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))
      - i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))



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**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**F. System 06 (Various Units) (continued)**

5. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)
    - (5) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 4211(g))
      - (a) For CI ICE greater than 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. The Permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. (40 CFR 60.4211(g)(3))
  - e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:  
If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))





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**CLASS I OPERATING PERMIT TO Construct**

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**Section V. Specific Operating Conditions (continued)**

**G. System 07 (Various Units)**

Various Locations, UTM (Zone 11, NAD 83)

**System 07 – Emergency Generators (ADDED DATE, Air Case 12007)**

1. Air Pollution Control Equipment (NAC 445B.3405) (*Federally Enforceable SIP Requirement*)  
Each unit in System 07 has no add-on controls.
  
2. Operating Parameters (NAC 445B.3405) (*Federally Enforceable SIP Requirement*)
  - a. Each unit in System 07 may consume only diesel.
  - b. The maximum allowable fuel consumption rate for each unit in System 07 shall not exceed 113.0 gallons per clock hour, nor more than 4,659.0 gallons per 12-month rolling period of non-emergency use.
  - c. Hours:
    - (1) Each unit in System 07 shall not operate more than 13 hours per day, with operation limited to the hours between 6:00 am through 7:00 pm, during 100% power load.
    - (2) Each unit in System 07 shall not operate more than 13 hours per day, with operation limited to the hours between 6:00 am through 7:00 pm, during 3% power load.
    - (3) The combined units in System 07 shall not operate more than 328.0 hours per 12-month rolling period for testing, maintenance, and non-emergency operations.
  
3. Emission Limits (NAC 445B.305, NAC 445B.3405) (*Federally Enforceable SIP Requirement*)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from each unit in System 07 the following pollutants in excess of the following specified limits:

  - a. The discharge of PM (particulate matter) to the atmosphere shall not exceed:
    - (1) 0.036 pounds per hour, during 100% power load; and
    - (2) 0.52 pounds per hour, during 3% power load.
  - b. The discharge of PM<sub>10</sub> (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed:
    - (1) 0.036 pounds per hour, during 100% power load; and
    - (2) 0.52 pounds per hour, during 3% power load.
  - c. The discharge of PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed:
    - (1) 0.036 pounds per hour, during 100% power load; and
    - (2) 0.52 pounds per hour, during 3% power load.





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**Section V. Specific Operating Conditions (continued)**

**G. System 07 (Various Units) (continued)**

**3. Emission Limits** (NAC 445B.305, NAC 445B.3405) (*Federally Enforceable SIP Requirement*) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from **each unit in System 07** the following pollutants in excess of the following specified limits: (continued)

- d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed:
  - (1) **0.027** pounds per hour, during **100%** power load; and
  - (2) **0.0018** pounds per hour, during **3%** power load.
- e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed:
  - (1) **40.5** pounds per hour, during **100%** power load; and
  - (2) **1.74** pounds per hour, during **3%** power load.
- f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed:
  - (1) **0.36** pounds per hour, during **100%** power load; and
  - (2) **0.75** pounds per hour, during **3%** power load.
- g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed:
  - (1) **0.073** pounds per hour, during **100%** power load; and
  - (2) **0.15** pounds per hour, during **3%** power load.
- h. The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **combined units in System 07** the following pollutants in excess of the following specified limits:
  - (1) The discharge of **PM** to the atmosphere shall not exceed **0.034** tons per 12-month rolling period.
  - (2) The discharge of **PM<sub>10</sub>** to the atmosphere shall not exceed **0.034** tons per 12-month rolling period.
  - (3) The discharge of **PM<sub>2.5</sub>** to the atmosphere shall not exceed **0.034** tons per 12-month rolling period.
  - (4) The discharge of **SO<sub>2</sub>** to the atmosphere shall not exceed **0.0019** tons per 12-month rolling period.
  - (5) The discharge of **NO<sub>x</sub>** to the atmosphere shall not exceed **1.26** tons per 12-month rolling period.
  - (6) The discharge of **CO** to the atmosphere shall not exceed **0.13** tons per 12-month rolling period.
  - (7) The discharge of **VOC** to the atmosphere shall not exceed **0.019** tons per 12-month rolling period.
- i. NAC 445B.22017 – The opacity from **each unit in System 07** shall not equal or exceed **20** percent.
- j. NAC 445B.2203 – The maximum allowable discharge of **PM<sub>10</sub>** to the atmosphere from **each unit in System 07** shall not exceed **0.54** pounds per MMBtu.
- k. NAC 445B.22047 – The maximum allowable discharge of **sulfur** to the atmosphere from **each unit in System 07** shall not exceed **10.87** pounds per hour.



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**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**G. System 07 (Various Units) (continued)**

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.3405) (*Federally Enforceable SIP Requirement*)  
The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record. All specified records shall be entered into the log at the end of the shift, end of the day of operation, or the end of the final day of operation for the month, as appropriate.
  - a. Monitor and record the consumption rate of **diesel** for each clock hour for **each unit in System 07** (in gallons) by use of a fuel flow meter.
  - b. Record the consumption rate of **diesel**, in gallons, on a cumulative monthly basis, for each 12-month rolling period.
  - c. In accordance with NAC 445B.264.2 (Monitoring systems: Recordation of data), monitor and record the percentage load at **each unit in System 07** with four or more data points equally spaced over each 1-hour period. The hourly percentage load will be determined from the average of data points over the 1-hour period and rounded up to the nearest permitted power load of 3% or 100%.
  - d. Monitor and record the total daily hours of operation for **each unit in System 07** for each calendar day of operation. The Permittee shall note which hours of operation are emergency hours, and which hours of operation are hours for non-emergency use.
  - e. Record the monthly hours of operation and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined at the end of each month as the sum of the monthly hours of operation for the year.
  - f. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. (40 CFR 60.7(b))
  
5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
  - a. Emission Standards (40 CFR 60.4205)  
The Permittee must comply with the emission standards for new non-road CI (compression ignition) ICE (internal combustion engine) in 40 CR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE. (40 CFR 60.4205(b))
    - (1) For a 2011 model year and later Tier 2 non-road engine with a rated power greater than 560 kW (751 hp): (40 CFR 60.4202(b)(2), 40 CFR 89.112 Table 1), the discharge of the following pollutants from the exhaust each **unit in System 07** shall not exceed the following:
      - (a) The discharge of **PM** to the atmosphere shall not exceed **0.2** grams/kW-hr.
      - (b) The discharge of **CO** to the atmosphere shall not exceed **3.5** grams/kW-hr.
      - (c) The discharge of **NMHC** (non-methane hydrocarbon) + **NO<sub>x</sub>** to the atmosphere shall not exceed **6.4** grams/kW-hr.
    - (2) Exhaust opacity must not exceed: (40 CFR 60.4202(a)(2), 40 CFR 89.113(a))
      - (a) **20** percent during acceleration mode;
      - (b) **15** percent during the lugging mode; and
      - (c) **50** percent during the peaks in either the acceleration or lugging modes.
  - b. Fuel Requirements (40 CFR 60.4207)  
The Permittee must meet the following diesel requirements for non-road engine: (40 CFR 60.4207(b), 40 CFR 80.510(b))
    - (1) Sulfur content to be **15** parts per million (ppm) maximum.
    - (2) A minimum cetane index of **40**; or
    - (3) A maximum aromatic content of **35** volume percent.



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**Section V. Specific Operating Conditions (continued)**

**G. System 07 (Various Units) (continued)**

5. Federal Requirements (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - c. Monitoring Requirements (40 CFR 60.4209)  
If the CI ICE does not meet the standards applicable to non-emergency engines, the Permittee must install a non-resettable hour meter prior to startup of the engine. (40 CFR 60.4209(a))
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211)
    - (1) The Permittee must operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR 60.4205 over the entire life of the engine. (40 CFR 60.4206)
    - (2) The Permittee must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR Part 89. (40 CFR 60.4211(a))
    - (3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in **G.5.d.(5)** of this section. (40 CFR 60.4211(c))
    - (4) In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs **G.5.d.(4)(a) through (c)** of this section, is prohibited. If the Permittee do not operate the engine according to the requirements in paragraphs **G.5.d.(4)(a) through (c)** of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (40 CFR 60.4211(f))
      - (a) There is no time limit on the use of emergency stationary ICE in emergency situations. (40 CFR 60.4211(f)(1))
      - (b) The Permittee may operate the Permittee's emergency stationary ICE for any combination of the purposes specified in paragraphs **G.5.d.(4)(b)** of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph **G.5.d.(4)(c)** of this section counts as part of the 100 hours per calendar year. (40 CFR 60.4211(f)(2))
        - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. (40 CFR 60.4211(f)(2)(i))
    - (c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph **G.5.d.(4)(b)** of this section. Except as provided in paragraph **G.5.d.(4)(c)** of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. (40 CFR 60.4211(f)(3))
      - i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the conditions in 40 CFR 60.4211(f)(3)(i)(A) through (E) are met. (40 CFR 60.4211(f)(3)(i))



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**Issued to:** Switch, Ltd. (as Permittee)

**Section V. Specific Operating Conditions (continued)**

**G. System 07 (Various Units) (continued)**

5. Federal Requirements (NAC 445B.3365(3), 40 CFR Part 60) (*Federally Enforceable SIP Requirement*) (continued)  
New Source Performance Standards (NSPS) – 40 CFR Part 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (continued)
  - d. Compliance Requirements (40 CFR 60.4206, 40 CFR 60.4211) (continued)
    - (5) If the Permittee does not install, configure, operate, and maintain the Permittee's engine and control device according to the manufacturer's emission-related written instructions, or the Permittee change emission-related settings in a way that is not permitted by the manufacturer, the Permittee must demonstrate compliance as follows: (40 CFR 4211(g))
      - (a) For CI ICE greater than 500 hp, the Permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee change emission-related settings in a way that is not permitted by the manufacturer. The Permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. (40 CFR 60.4211(g)(3))
  - e. National Emission Standards for Hazardous Air Pollutants for Source Categories – 40 CFR Part 63, Subpart ZZZZ – Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines:  
If the compression ignition engine meets the requirements of 40 CFR Part 60 Subpart IIII, 40 CFR Part 63 Subpart ZZZZ requirements are also met. (40 CFR Part 63.6590(c))

**\*\*\*\*End of Specific Operating Conditions\*\*\*\***



**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section VI. Emission Caps**

A. No emission caps defined.

**\*\*\*\*End of Emission Caps\*\*\*\***

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**Bureau of Air Pollution Control**

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**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section VII. Surface Area Disturbance Conditions**

A. Dust Control Plan (NRS 445B.230(6))

The permittee may not cause or permit the construction, repair, or demolition work, or the use of unpaved or untreated areas without applying all such measures as may be required by the Director to prevent particulate matter from becoming airborne.

1. The permittee will control fugitive dust in accordance with the dust control plan entitled “Fugitive Dust Control Plan”, as submitted on March 2, 2015.

B. NAC 445B.22037

Fugitive Dust

1. The permittee may not cause or permit the handling, transporting, or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.
2. Except as otherwise provided in subsection 4, the permittee may not cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, “best practical methods” includes, but is not limited to, paving, chemical stabilization, watering, phased construction, and revegetation.
3. Except as provided in subsection 4, the permittee may not disturb or cover 5 acres or more of land or its topsoil until the permittee has obtained an Operating Permit to Construct for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.
4. The provisions of subsections 2 and 3 do not apply to:
  - a. Agricultural activities occurring on agricultural land; or
  - b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

**\*\*\*\*End of Surface Area Disturbance Conditions \*\*\*\***





**Bureau of Air Pollution Control**

**Facility ID No. A1896**

**Permit No. AP7375-3672**

**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section VIII. Amendments**

**December 30, 2015 (Air Case 8482)** – New Class I OPTC Issuance

**October 16, 2017 (Air Case 9307)** – Class I OPTC Revision application was received on April 28, 2017. The revision included the following:

- Removed a generator unit from System 01 Diesel Fired Back-Up Generators.
- Decreased System 01's combined hours under Section V.A.2.c.(3) from 19,909 hours to 19,848 hours.
- Added operating hour time restrictions to System 01 to allow for the operation of each unit to be between the hours of 6:00 am through 7:00 pm only, for both the 75% and 10% power load scenarios.
- Removed annual operational limitations for the 10% load scenario under System 01.
- Revised UTM coordinates for various generators under System 01.
- Removed daily operational limitations for the engines under System 02 Diesel Fired Fire Pumps.
- Added new cooling tower units to System 03 Cooling Towers.
- Added System 04 Diesel Fired Emergency Back-Up Generator.
- Added System 05 Diesel Fired Emergency Back-Up Generator.
- Removed the Diesel Tanks under the Insignificant Activities list.
- Included System 04 and System 05 in Section II.A permit language.
- Added Initial Performance/Compliance Testing requirements for System 04 and System 05 under Section IIA.

**November 27, 2018 (Air Case 9623)** – Class I OPTC Revision application was received on April 27, 2018. The revision included the following:

- Increased the number of generators under System 01 Diesel Fired Back-Up Generators.
- Increased combined hours of System 01 Diesel Fired Back-Up Generators under Section V.A.2.c(3) from 19,848 hours to 19,887 hours.
- Revised UTM coordinates for various generators under System 01.
- Moved System 03 Cooling Towers to Non-Permit Equipment List.
- Decreased the number of Cooling Towers (previously System 03).
- Updated the site plans for System 01 and Cooling Towers (previously System 03).

**DATE, (Air Case 12007)** – Class I OPTC Revision application was received on April 24, 2024. The revision included the following:

- Revised number of generators in System 01 Diesel Fired back-Up Generators and changed the operating hours from 19,887 hours to 7,879 hours per 12-month rolling period.
- Added Systems 06 Emergency Generators and 07 Emergency Generators
- Revised the number of Insignificant Activity Cooling Towers.



**Bureau of Air Pollution Control**

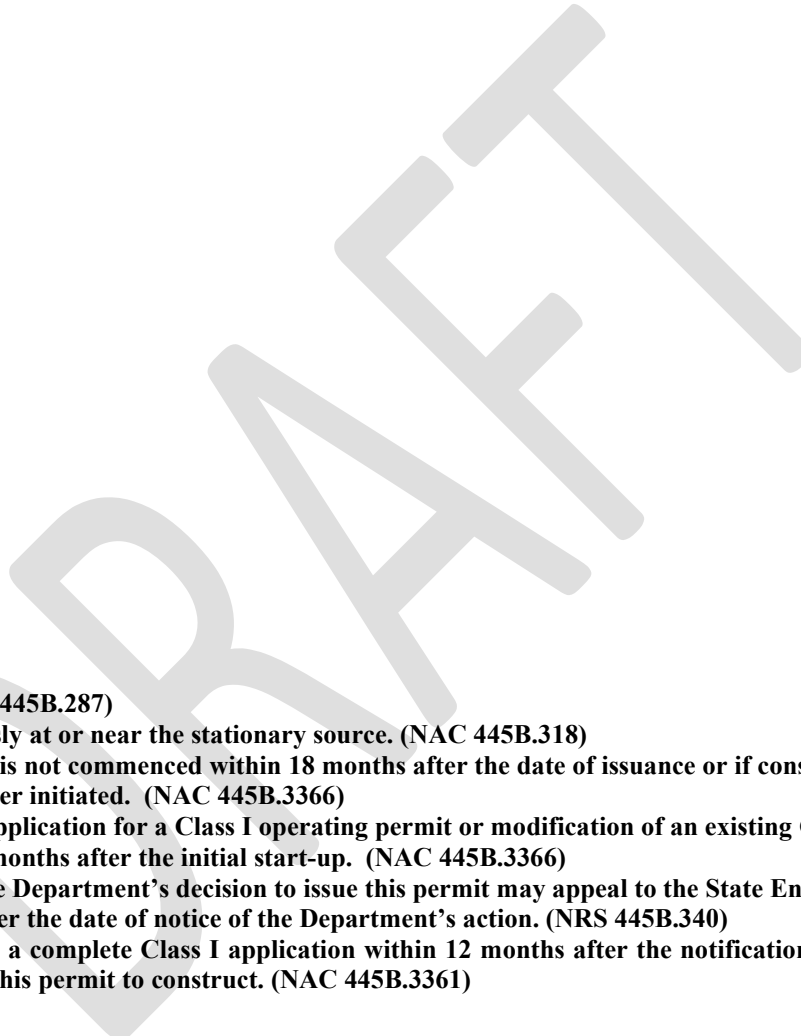
**Facility ID No. A1896**

**Permit No. AP7375-3672**

**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

**Section VIII. Amendments (continued)**



**This Permit to construct:**

1. **Is non-transferable. (NAC 445B.287)**
2. **Will be posted conspicuously at or near the stationary source. (NAC 445B.318)**
3. **Will expire if construction is not commenced within 18 months after the date of issuance or if construction of the facility is delayed for 18 months after initiated. (NAC 445B.3366)**
4. **Will expire if a complete application for a Class I operating permit or modification of an existing Class I operating permit is not submitted within 12 months after the initial start-up. (NAC 445B.3366)**
5. **Any party aggrieved by the Department's decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department's action. (NRS 445B.340)**
6. **The Permittee shall submit a complete Class I application within 12 months after the notification date of commencement of operation as required in this permit to construct. (NAC 445B.3361)**

**Signature:** \_\_\_\_\_

**Issued by:** Jaimie Mara  
Supervisor, Permitting Branch  
Bureau of Air Pollution Control

**Phone:** (775) 687-9343

**Date:** DATE



**Bureau of Air Pollution Control**

**Facility ID No. A1896**

**Permit No. AP7375-3672**

**CLASS I OPERATING PERMIT TO Construct**

**Issued to:** Switch, Ltd. (as Permittee)

Emission Unit #	Emission Unit Description
IA Units	Diesel tanks attached to System 01 units and System 02 units (capacity < 40,000 gallons) <b>(REMOVED OCTOBER/2017)</b>
IA Units	Cooling Towers <b>(REVISED DATE, 2018, Air Case 12007)</b>

Note: *The equipment listed on this attachment are subject to all applicable requirements of the NAC and ASIP.*

DRAFT