

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

IN THE MATTER OF APPROVING A NEW)  
 AIR CONTAMINANT SOURCE FOR         )  
**SABEY INTERGATE QUINCY, LLC         )**                             Preliminary Determination  
**INTERGATE-QUINCY DATA CENTER    )**

TO:   Cris Engel,  
       Sabey Intergate-Quincy Data Center  
       2200 M Street NE,  
       Quincy, WA 98848

On October 7, 2014, the Washington State Department of Ecology (Ecology) received a Notice of Construction (NOC) application from the Sabey Intergate Quincy, LLC., Data Center (Sabey) located at 2200 M Street NE, Quincy, WA. Sabey requested approval for revisions to the August 26, 2011 Approval Order No. 11AQ-E424 (previous permit). The NOC application was determined to be incomplete and, on December 5, 2014, Ecology issued an incompleteness letter to Sabey. On March 5, 2015, Sabey provided a revised NOC application and a revised Second Tier Risk Analysis to Ecology. The application and Second Tier Risk Analysis were considered complete on June 23, 2015.

**EQUIPMENT**

The list of equipment for this approval order includes 44 diesel engines used to power emergency electrical generators at the Sabey Intergate-Quincy Data Center (Sabey). The forty-four 2.0 megawatt (MWe) generators will have a combined capacity of up to 88 MWe using a combination of Caterpillar, Cummins, and MTU engines. Provisions for the use of smaller engines supplied by these manufacturers are contained in Condition 2.7 of this Approval Order. Sabey’s application provided Ecology with a combination of engine size ranges for the anticipated engines to be used, which will have ranges at or smaller than the following sizes: Caterpillar Model 3516C rated 2.0 MWe; Caterpillar Model 3512C rated 1.5 MWe; Cummins QSK60-G14 NR2 rated 2.0 MWe; Cummins Inc QSK50-G5 NR2 rated 1.5 MWe; MTU 16V4000G43 rated 2.0 MWe; and MTU 12V4000G43 rated 1.5 MWe.

The generators will be installed in three construction phases. The remaining 2 generators of the 12 Phase 1 generators (10 were installed under a previous Approval Order and are included as part of the 44 generators of this Approval Order), will each consist of up to 2.0 MWe generators that will be installed upon approval. Phase 2 and 3 will each consist of sixteen generators up to 2.0 MWe each, and will be installed at the facility as independent tenant companies contract for space at Sabey. Emergency engine information is provided in Table 1.1.

<b>Table 1.1: Emergency Engine &amp; Generator Serial Numbers</b>						
Phase	Unit ID	Manufacturer & Model No.	Capacity MWe	Engine SN	Generator SN	Build Date
Phase 3	A01					
“	A02					
“	A03					
“	A04					
“	A05					

“	A06					
“	A07					
“	A08					
“	A09					
“	A10					
“	A11					
“	A12					
“	A13					
“	A14					
“	A15					
“	A16					
Phase 2	B01					
“	B02					
“	B03					
“	B04					
“	B05					
“	B06					
“	B07					
“	B08					
“	B09					
“	B10					
“	B11					
“	B12					
“	B13					
“	B14					
“	B15					
“	B16					
Phase 1	QC3-A	Caterpillar 3512C	1.5	EBG00972	G5Y00653	07/22/2011
Phase 1	QC3-B	Caterpillar 3512C	1.5	EBG00975	G5Y00652	07/22/2011
Phase 1	QC3-C	Caterpillar 3512C	1.5	EBG00973	G5Y00654	07/22/2011
Phase 1	QC1-A	Caterpillar 3516C	2.0	DD600363	G7F00178	11/24/2013
Phase 1	QC1-B	Caterpillar 3516C	2.0	DD600364	G7F00177	11/22/2013
Phase 1	QC4-A	Caterpillar 3512C	1.5	CT200132	G2N00529	03/05/2014
Phase 1	QC4-B	Caterpillar 3512C	1.5	CT200134	G2N00532	03/07/2014
Phase 1	QC4-C	Caterpillar 3512C	1.5	CT200133	G2N00531	03/05/2014
Phase 1	QC2-A	Caterpillar 3516C	2.0	DD600488	G7F00188	07/09/2014
Phase 1	QC2-B	Caterpillar 3516C	2.0	DD600490	G7F00187	07/09/2014
Phase 1						
Phase 1						
total	44					

This approval order also includes 176 Munters Model PV-W35-PVT (or equivalent) cooling units to dissipate heat from electronic equipment at the facility. Cooling unit information is provided in Table 1.2.

	# Fans per Cooling Unit	# Cooling Units per engine	Total # Cooling Units
Total	3	4	176

## **DETERMINATIONS**

In relation to this project, the State of Washington Department of Ecology (Ecology), pursuant to Revised Code of Washington (RCW) 70.94.152, Washington Administrative Code (WAC) 173-460-040, and WAC 173-400-110, makes the following determinations:

1. The project, if constructed and operated as herein required, will be in accordance with applicable rules and regulations, as set forth in Chapter 173-400 WAC, and Chapter 173-460 WAC, and the operation thereof, at the location proposed, will not emit pollutants in concentrations that will endanger public health.
2. The proposed project, if constructed and operated as herein required, will utilize best available control technology (BACT).
3. The proposed project, if constructed and operated as herein required, will utilize best available control technology for toxic air pollutants (tBACT).
4. The modeled ambient concentrations of two toxic air pollutants – diesel engine exhaust particulate matter and nitrogen dioxide – exceed the Acceptable Source Impact Levels (ASILs) for those pollutants, as defined in Chapter 173-460 WAC. Ecology has evaluated the health risks associated with diesel engine exhaust particulate and nitrogen dioxide emissions from the proposed project, in accordance with WAC 173-460-090. Ecology has concluded that the health risks from the project are acceptable in accordance with WAC 173-460-090(7). The technical analysis supporting this determination is incorporated into the Technical Support Document associated with this Notice of Construction Approval Order.

**THEREFORE, IT IS ORDERED** that the project as described in the Notice of Construction application and more specifically detailed in plans, specifications, and other information submitted to Ecology is approved for construction and operation, provided the following are met:

## **APPROVAL CONDITIONS**

### **1. ADMINISTRATIVE CONDITION**

- 1.1 Notice of Construction Approval Order No. 11AQ-E424 is rescinded and replaced entirely with this Approval Order.
- 1.2 Sabey will provide Quincy School District administrators with the telephone number for Sabey and a 24 hour contact number for a Sabey manager. Sabey will notify the school whenever (Ecology) approved changes occur in the maintenance testing schedule. As decided by the school administrators and Sabey, an ongoing relationship shall be established to facilitate future communications.
- 1.3 Sabey submitted a NOC application to determine compliance with all applicable state and federal air quality regulations. At full build out of all three phases, Sabey is anticipated to be occupied by up to eight independent tenants. Each independent tenant will be issued an approval order based on the parameters established in this approval order. A NOC application (form only) and engine manufacturer's specification sheets will be required from each independent tenant prior to occupancy, subject to Approval

Conditions 2.4 and 2.7. Ecology will review the NOC application form to determine whether the proposed project conforms to the parameters contained in this approval order. If the proposed project conforms to the approval order, Ecology will issue an administrative approval order to the applicant without further review. If the proposed project does not conform to this approval order, Ecology will require new source review under Chapters 173-400 WAC and 173-460 WAC. The purpose of the administrative approval orders for each independent tenant is to establish responsibility for their individual operations, and to ensure conformity to this approval Order.

- 1.4** The administrative approval orders issued to each independent tenant will contain conditions that will require coordination of operations with other tenants to provide for compliance with this approval order with the intent to minimize community impacts.
- 1.5** Sabey shall make available information on diesel engine exhaust health risks and emergency generator operations to existing residents and commercial and industrial facilities within 0.25 miles of Sabey property boundaries. Information on diesel exhaust health risks and emergency generator operations shall be provided to the City of Quincy Building and Planning Department for distribution to new homeowners and businesses that locate on undeveloped parcels within 0.25 miles of the Sabey property boundary. The health risk information may be, or should be similar to, Ecology Focus on Diesel Exhaust Health Risks dated February 2011, Publication Number 11-02-005. A copy of the materials to be used to comply with this condition shall be provided to Ecology for review, and distributed prior to starting Phase 1 operations.

## **2. EQUIPMENT RESTRICTIONS**

- 2.1** Any engine used to power the electrical generators shall be operated in accordance with applicable 40 CFR 60, Subpart IIII requirements including but not limited to: certification by the manufacturer to meet the 40 CFR 89 EPA Tier 2 emissions levels as required by 40 CFR 60.4202; and installed and operated as emergency engines, as defined in 40 CFR 60.4219. At the time of the effective date of this permit, Tier 4 interim and Tier 4 final certified engines (as specified in 40 CFR 1039.102 Table 7 and 40 CFR 1039.101 Table 1, respectively), are not required for 1.5 to 2.0 MWe electrical generators used for emergency purposes as defined in 40 CFR 60.4219 in attainment areas in Washington State. However, any engines installed at the Sabey Data Center after Tier 4 or other limits are implemented by EPA for emergency generators, shall meet the applicable specifications as required by EPA at the time the emergency engines are installed.
- 2.2** The only engines and electrical generating units approved for operation at Sabey are those listed by serial number in Table 1 above.
- 2.3** Replacement of failed engines with identical engines (same manufacturer and model) requires notification prior to installation but will not require new source review unless there is an increase in emission rates or community impacts.
- 2.4** The installation of any new engines after July 1, 2019 will require notification to Ecology that includes engine manufacturer's specification sheets. Ecology will decide whether new source review is required based on various factors including whether the new engines will have either an increased emission rate or result in an emission

concentration that may increase community impacts over those evaluated for this approval Order, or if an update to the current BACT analysis is necessary.

- 2.5 The forty-four (44) engine exhaust stack heights shall be greater than or equal to 48 feet above ground level and will be no more than 16 inches in diameter. All engines that may be used for this project shall be required to verify that exhaust stack parameters such as diameter, height, and exhaust rate and velocity do not result in community emissions impacts greater than what was evaluated for this project.
- 2.6 The manufacture and installation of the forty-four (44) engine/generator sets proposed for Building A, Building B and Building C of the project shall occur by January 1, 2019. If the manufacture and installation of the engines has not been completed within the above schedule, new source review may be required prior to installation, and community impacts will be re-evaluated if new source review is required. Sabey may request an extension of this time schedule, and Ecology may approve of an extension without revision to this Order.
- 2.7 This Order only applies to the forty-four (44) engines, each with a rated full standby capacity of up to 2.0 MWe, which are consistent with the engines that were evaluated in the Notice of Construction application and second tier review. New source review will not be required for engines with a rated full standby capacity of less than or equal to 2.0 MWe that comply with the engine certification requirements contained in Approval Conditions 2.1 and 5 unless there is an increase in community emission impacts. On a case-by-case basis, Ecology may require additional ambient impacts analyses prior to installation of smaller engines.
- 2.8 In addition to meeting EPA Tier 2 certification requirements, the source must have written verification from the engine manufacturer that each engine of the same make, model, and rated capacity installed at the facility uses the same electronic Programmable System Parameters, i.e., configuration parameters, in the electronic engine control unit.

### 3. OPERATING LIMITATIONS

- 3.1 The fuel consumption at Sabey shall be limited to a total of 263,725 gallons per year of diesel fuel equivalent to on-road specification No. 2 distillate fuel oil (less than 0.00150 weight percent sulfur). Total annual fuel consumption by the facility may be averaged over a three (3) year period using monthly rolling totals.
- 3.2 Except as provided in Approval Condition 3.5, the forty-four (44) Sabey engines are restricted to the annual limits in Table 3.2 averaged over three (3) year monthly rolling totals and averaged over all generators in service:

Operating Activity	Average hours/year per engine.	Average Operating Electrical Loads (%)	Number of Engines Operating Concurrently
Monthly Testing	16.5	Zero electrical load to 50%	4

Annual Load Bank Testing	6	100%	4
Combined Electrical Bypass and Power Outage	35	Any random load from zero to 100%	22 (electrical bypass); 44 (power outage); 1 (corrective testing)
<b>Total</b>	<i>57.5</i>		

- 3.3. A load bank will be used for electrical energy dissipation whenever prescheduled monthly maintenance testing, corrective testing or annual load bank testing occurs above zero electrical load.
- 3.4. The forty-four (44) engines at Sabey require periodic scheduled operation. To mitigate engine emission impacts, Sabey will perform all engine testing during daylight hours. Engine testing may take place outside of these time restrictions upon coordination by Sabey with other data centers in northeast Quincy to minimize engine emissions impacts to the community. Sabey shall maintain records of the coordination communications with other data centers, and those communications shall be available for review by Ecology upon request.
- 3.5. Initial start-up (commissioning) testing for the forty-four (44) engines at Sabey is restricted to an average of 30 hours per generator and 2309 gallons of fuel per generator, averaged over all generators installed during any consecutive 3 year period.
  - 3.5.1 Except during site integration testing as specified below, only one engine shall be operated at any one time during start-up testing.
  - 3.5.2 During a site integration test, no more than sixteen (16) generator engines may operate concurrently for up to four continuous hours.
  - 3.5.3 All startup and commissioning testing shall be conducted during daylight hours.
  - 3.5.4 Fuel use limits contained in Approval Conditions 3.1 and emission limits contained in Approval Conditions 5, remain in effect during initial start-up testing.
- 3.6. All of the cooling units shall comply with the following conditions:
  - 3.6.1 Each individual cooling unit shall use a mist eliminator with a maximum drift rate of 0.001% of the circulating water flow rate. The drift rate shall be guaranteed by the unit manufacturer.
  - 3.6.2 Chemicals containing hexavalent chromium cannot be used to pre-treat the cooling unit makeup water.

**4. GENERAL TESTING AND MAINTENANCE REQUIREMENTS**

- 4.1. Sabey will follow engine-manufacturer’s recommended diagnostic testing and maintenance procedures to ensure that each engine will conform to Condition 5 emission limits and Tier 2 emission specifications as listed in 40 CFR 89 throughout the life of each engine.

- 4.2 Sabey shall measure emissions of particulate matter (PM), non-methane hydrocarbons, nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO) from engine exhaust stacks in accordance with Approval Condition 4.3. This testing will serve to demonstrate compliance with the g/kW-hr EPA Tier 2 average emission limits contained in Section 5, and as an indicator of proper operation of the engines. The selection of the engines(s) to be tested shall be in accordance with Conditions 4.2.1 and 4.2.2 and shall be defined in a source test protocol submitted to Ecology no less than 30 days in advance of any compliance-related stack sampling conducted by Sabey. Additional testing as described in 40 CFR 60.8(g) may be required by Ecology at their discretion.
- 4.2.1 For new engines, at least one representative engine from each manufacturer and each size engine from each manufacturer shall be tested immediately after commissioning.
- 4.2.2 Every 60 months after the first testing performed in Condition 4.2.1, Sabey shall test at least one engine, including the engine with the most operating hours as long as it is a different engine from that which was tested during the previous 60 month interval testing.
- 4.3 The following procedure shall be used for each test for the engines as required by Approval Condition 4.2 unless an alternate method is proposed by Sabey and approved in writing by Ecology prior to the test.
- 4.3.1 Periodic emissions testing should be combined with other pre-scheduled maintenance testing and annual load bank engine testing. Additional operation of the engines for the purpose of emissions testing beyond the operating hours allowed in this Order must be approved by Ecology in writing. Additional operation of the engines for Ecology-required stack emission testing shall be limited to up 30 hours per generator per emission test, averaged over all generators tested in any year. These allowable runtime hours for emission testing cannot be transferred to other uses. If emission testing cannot be completed within the 30 hour allocated limit, then additional stack testing runtime beyond 30 hours must be included in the 57.5 hours per year per generator limit listed in Table 3.2.
- 4.3.2 PM (filterable fraction only), non-methane hydrocarbons, NO, NO<sub>2</sub>, and CO emissions measurement shall be conducted at five individual generator electrical loads of 100%, 75%, 50%, 25%, and 10% using weighting factor averaging according to Table 2 of Appendix B to Subpart E of 40CFR89..
- 4.3.3 EPA Reference Methods and test procedures from 40 CFR 60, 40 CFR 51, and/or 40 CFR 89 as appropriate for each pollutant shall be used including Method 5 or 40 CFR 1065 for PM. A test plan will be submitted for Ecology approval at least 30 days before any testing is conducted and must include the criteria used to select the engine for testing, as well as any modifications to the standard test procedure contained in the above references.
- 4.3.4 The F-factor method, as described in EPA Method 19, may be used to calculate exhaust flow rate through the exhaust stack. The fuel meter data, as measured according to Approval Condition 4.5, shall be included in the test report, along with the emissions calculations.

- 4.3.5 In the event that any source test shows non-compliance with the emission limits in Condition 5, Sabey shall repair or replace the engine and repeat the test on the same engine plus two additional engines of the same make and model as the engine showing non-compliance. Test reports shall be submitted to Ecology as provided in Condition 9.5 of this Order.
- 4.4 Each engine shall be equipped with a properly installed and maintained non-resettable meter that records total operating hours.
- 4.5 Each engine shall be connected to a properly installed and maintained fuel flow monitoring system that records the amount of fuel consumed by that engine during operation.

**5 EMISSION LIMITS**

- 5.1 The forty-four (44) engines described in this Order shall meet the emission rate limitations contained in this section. Unless otherwise approved by Ecology in writing, compliance with emission limits for those pollutants that are required to be tested under Approval Conditions 4.2 and 4.3 shall be based on emissions test data as determined according to those approval conditions.
- 5.2 To demonstrate compliance with 40CFR89(112 & 113) g/kW-hr EPA Tier 2 weighted average emission limits through stack testing, Sabey shall conduct exhaust stack testing as described in Conditions 4.2 and 4.3 according to Table 2 of Appendix B to Subpart E of 40CFR89, or any other applicable EPA requirement in effect at the time the engines are installed.
- 5.3 Nitrogen oxides (NOx or NO + NO2) emissions from each of the forty-four (44) engines shall not exceed the following emission rates at the stated loads, based on emission factors provided by the engine manufacturer:

<b>Table 5.3: Nitrogen oxides (NOx) and non-methane hydrocarbon (NMHC) emission rate limits</b>			
	<b>Operating Scenario</b>	<b>Operating Electrical Load</b>	<b>Emissions Limit per engine</b>
5.2.1	Maximum Emission Rate Per Load	Maximum Rate at 100%, 75%, 50%, 25%, or 10%	41.9 lb/hr <sup>1</sup> (NOx)
5.2.2	Average Emission Rate Across All Loads	Weighted Average of Rates at 100%, 75%, 50%, 25%, and 10%	5-load weighted average of 6.4 g/kW-hr (NOx + NMHC)

1 Limit represents the higher value of either the Caterpillar “Not To Exceed” or EPA Tier-2 (6.12 g/kw-hr) Total engine NOx emissions shall comply with Tier 2 emissions limits in 40CFR89.



- 5.4 Nitrogen dioxide (NO<sub>2</sub>) emissions from each of the forty-four (44) engines shall not exceed the following emission rates at the stated loads, based on emission factors provided by the engine manufacturer:

<b>Table 5.4: Nitrogen dioxide (NO<sub>2</sub>) emission rate limits</b>			
	Operating Scenario	Operating Electrical Load	Emissions Limit per engine
5.3.1	Maximum Emission Rate Per Load	Maximum Rate at 100%, 75%, 50%, 25%, or 10%	4.19 lb/hr <sup>1</sup>
5.3.2	Average Emission Rate Across All Loads	Weighted Average of Rates at 100%, 75%, 50%, 25%, and 10%	5-load weighted average of 0.62 g/kW-hr

1 10% of total NO<sub>x</sub> emission limits

- 5.5 Carbon monoxide emissions from each of the forty-four (44) engines shall not exceed the following emission rates at the stated loads, based on emission factors provided by the engine manufacturer:

<b>Table 5.5: Carbon monoxide (CO) emission rate limits</b>			
	Operating Scenario	Operating Electrical Load	Emissions Limit per engine
5.4.1	Maximum Emission Rate Per Load	Maximum Rate at 100%, 75%, 50%, 25%, or 10%	16.9 lb/hr <sup>1</sup>
5.4.2	Average Emission Rate Across All Loads	Weighted Average of Rates at 100%, 75%, 50%, 25%, and 10%	5-load weighted average of 3.5 g/kW-hr

1 Limit represents the higher value of either the Caterpillar “Not To Exceed” or EPA Tier-2 (3.5 g/kw-hr). Total engine CO emissions shall comply with Tier 2 emissions limits in 40CFR89.

- 5.6 Diesel Engine Exhaust Particulate (DEEP) emissions from each of the forty-four (44) engines power shall not exceed the following emission rates at the stated loads, based on emission factors provided by the engine manufacturer:

	Operating Scenario	Operating Electrical Load	Emissions Limit per engine
5.5.1	Maximum Emission Rate Per Load	Maximum Rate at 100%, 75%, 50%, 25%, or 10%	0.57 lb/hr <sup>1</sup>
5.5.2	Average Emission Rate Across All Loads	Weighted Average of Rates at 100%, 75%, 50%, 25%, and 10%	5-load weighted average of 0.2 g/kW-hr

1 Limit represents the higher value of either the Caterpillar “Not-to-Exceed” data or EPA Tier-2 (0.2 g/kw-hr). Total engine PM emissions shall comply with Tier 2 emissions limits in 40CFR89.

5.7 Particulate matter emissions from all 44 engines combined shall not exceed 0.408 tons/yr (816 lbs/yr), on a 36-month rolling basis. For this condition, all PM emissions, including both the filterable “front-half” and the condensable “back-half” was conservatively considered to be diesel engine exhaust particulate (DEEP).

5.8 Nitrogen dioxide (NO<sub>2</sub>) emissions from all 44 engines combined shall not exceed 99 lbs/hr and 2.39 tons/yr, on a 36-month rolling basis.

5.9 Volatile organic compound (VOC) emissions from all 44 engines combined shall not exceed 1.43 tons/yr (2860 lbs/yr), on a 36-month rolling basis.

5.10 Sulfur dioxide emissions from all 44 engines combined shall not exceed 0.028 tons/yr (56 lbs/yr).

5.11 Visual emissions from each diesel electric generator exhaust stack while operating at an electrical load greater than 20 percent or less than 5 percent shall be no more than 5 percent opacity, and visible emissions during operating loads between 5 to 20 percent shall be no more than 10 percent opacity, with the exception of a two (2) minute period after unit start-up. Visual emissions shall be measured by using the procedures contained in 40 CFR 60, Appendix A, Method 9.

## 6 OPERATION AND MAINTENANCE MANUALS

A site-specific O&M manual for Sabey equipment shall be developed and followed. Manufacturers’ operating instructions and design specifications for the engines, generators, and associated equipment shall be included in the manual. The O&M manual shall include the manufacturers’ recommended protocols for extended low-load operation. The O&M manual shall be updated to reflect any modifications of the equipment or its operating procedures. Emissions that result from failure to follow the operating procedures contained in the O&M manual or manufacturer's operating instructions may be considered proof that the equipment was not properly installed, operated, and/or maintained. The O&M manual for the diesel engines and associated equipment shall at a minimum include:

- 6.1 Manufacturer's testing and maintenance procedures that will ensure that each individual engine will conform to the EPA Tier Emission Standards appropriate for that engine throughout the life of the engine.
- 6.2 Normal operating parameters and design specifications.
- 6.3 Operating maintenance schedule.

## 7 **SUBMITTALS**

All notifications, reports, and other submittals shall be sent to:

Washington State Department of Ecology  
Air Quality Program  
4601 N. Monroe Street  
Spokane, WA 99205-1295

## 8 **RECORDKEEPING**

All records, Operations and Maintenance Manual, and procedures developed under this Order shall be organized in a readily accessible manner and cover a minimum of the most recent 60-month period except as required for stack testing in Condition 8.2. Any records required to be kept under the provisions of this Order shall be provided within 30 days to Ecology upon request. The following records are required to be collected and maintained.

- 8.1 Fuel receipts with amount of diesel and sulfur content for each delivery to the facility.
- 8.2 Monthly and annual hours of operation for each diesel engine. The cumulative hours of operation for each engine shall be maintained for the life of the engine while at Sabey, and shall include which engines have been stack tested, and the report information from Condition 9.5.
- 8.3 Purpose, electrical load and duration of runtime for each diesel engine period of operation.
- 8.4 Comparison of the actual NO<sub>x</sub> emission rate to the allowable limit of 990 lbs/hour based on records of algebraic equations used to calculate load-specific NO<sub>x</sub> emissions, and facility-wide actual 1-hour average NO<sub>x</sub> emissions rates during each unplanned power outage and scheduled electrical bypass event that activates more than 16 generators simultaneously.
- 8.5 Annual gross power generated by each independent building quadrant at the facility and total annual gross power for the facility.
- 8.6 Upset condition log for each engine and generator that includes date, time, duration of upset, cause, and corrective action.
- 8.7 Any recordkeeping required by 40 CFR Part 60 Subpart III.
- 8.8 Air quality complaints received from the public or other entity, and the affected emissions units.

## 9 REPORTING

- 9.1 Within 10 business days after entering into a binding agreement with an independent tenant, Sabey shall provide Ecology with the company and the name and contact information of the company representative. Information on the Phase 2 and 3 engine/generator sets for Equipment Table 1.1 above will be the responsibility of the independent tenants of Sabey. The serial number, manufacturer make and model, standby capacity, and date of manufacture will be submitted prior to installation for each Phase 1, 2, and 3 engine and generator.
- 9.2 The following information will be submitted to the AQP at the address in Condition 7 above by January 31 of each calendar year. This information may be submitted with annual emissions information requested by the AQP.
  - 9.2.1 Monthly rolling annual total summary of the air contaminant emissions of concern in Condition 5 (PM2.5, CO, NO<sub>x</sub>, VOC, SO<sub>2</sub>, DEEP, and NO<sub>2</sub>),
  - 9.2.2 Monthly rolling hours of operation with annual total,
  - 9.2.3 Monthly rolling gross power generation with annual total as specified in Approval Condition 8.4,
  - 9.2.4 A listing of each start-up of each diesel engine that shows the purpose, fuel usage, and duration of each period of operation.
- 9.3 Any air quality complaints resulting from operation of the emissions units or activities shall be promptly assessed and addressed. A record shall be maintained by each tenant of the action taken to investigate the validity of the complaint and what, if any, corrective action was taken in response to the complaint. Ecology shall be notified within three (3) days of receipt of any such complaint.
- 9.4 Each tenant shall notify Ecology by e-mail or in writing within 24 hours of any engine operation of greater than 60 minutes if such engine operation occurs as the result of a power outage or other unscheduled operation. This notification does not alleviate the tenant from annual reporting of operations contained in any section of Approval Condition 9.
- 9.5 Stack test reports of any engine shall be submitted to Ecology within 45 days of completion of the test and shall include, at a minimum, the following information:
  - 9.5.1 Location, unit ID, manufacturer and model number of the engine(s) tested, including the location of the sample ports.
  - 9.5.2 A summary of test methods, results (reported in units and averaging periods consistent with the applicable emission standard or limit), field and analytical laboratory data, quality assurance/quality control procedures and documentation.
  - 9.5.3 A summary of operating parameters for the diesel engines being tested.
  - 9.5.4 Copies of field data and example calculations.
  - 9.5.5 Chain of custody information.
  - 9.5.6 Calibration documentation
  - 9.5.7 Discussion of any abnormalities associated with the results.
  - 9.5.8 A statement signed by the senior management official of the testing firm certifying the validity of the source test report.

## 10 GENERAL CONDITIONS

- 10.1 **Commencing/Discontinuing Construction and/or Operations:** This approval shall become void if construction of the facility is not begun within 18 months of permit issuance or if facility operation is discontinued for a period of eighteen (18) months or more. In accordance with WAC 173-400-111(7)(a) and (c), Ecology may extend the 18 month period and each phase must commence construction within 18 months of the projected and approved construction dates in this Order.
- 10.2 **Compliance Assurance Access:** Access to the source by representatives of Ecology or the EPA shall be permitted upon request. Failure to allow such access is grounds for enforcement action under the federal Clean Air Act or the Washington State Clean Air Act, and may result in revocation of this Approval Order.
- 10.3 **Availability of Order and O&M Manual:** Legible copies of this Order and the O&M manual shall be available to employees in direct operation of the diesel electric generation station, and be available for review upon request by Ecology.
- 10.4 **Equipment Operation:** Operation of the 44 diesel engines used to power emergency electrical generators and related equipment shall be conducted in compliance with all data and specifications submitted as part of the NOC application and in accordance with the O&M manual, unless otherwise approved in writing by Ecology.
- 10.5 **Modifications:** Any modification to the generators or engines and their related equipment's operating or maintenance procedures, contrary to information in the NOC application, shall be reported to Ecology at least 60 days before such modification. Such modification may require a new or amended NOC Approval Order.
- 10.6 **Activities Inconsistent with the NOC Application and this Approval Order:** Any activity undertaken by the permittee or others, in a manner that is inconsistent with the NOC application and this determination, shall be subject to Ecology enforcement under applicable regulations.
- 10.7 **Obligations under Other Laws or Regulations:** Nothing in this Approval Order shall be construed to relieve the permittee of its obligations under any local, state or federal laws or regulations.

All plans, specifications, and other information submitted to Ecology relative to this project and further documents and any authorizations or approvals or denials in relation thereto shall be kept at the Eastern Regional Office of the Department of Ecology in the "Air Quality Controlled Sources" files, and by such action shall be incorporated herein and made a part thereof.

Authorization may be modified, suspended, or revoked in whole or part for cause including, but not limited to the following:

1. Violation of any terms or conditions of this authorization;
2. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant fact.

The provisions of this authorization are severable and, if any provision of this authorization, or application of any provisions of their circumstances, and the remainder of this authorization, shall not be affected thereby.

**YOUR RIGHT TO APPEAL**

You have a right to appeal this Approval Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Approval Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this Approval Order:

- File your appeal and a copy of this Approval Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Approval Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

**ADDRESS AND LOCATION INFORMATION**

Street Addresses	Mailing Addresses
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk P.O. Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 1111 Israel Road SW, Suite 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> P.O. Box 40903 Olympia, WA 98504-0903

*For additional information visit the Environmental Hearings Office  
Website: <http://www.eho.wa.gov>*

*To find laws and agency rules visit the Washington State Legislature Website:  
<http://www1.leg.wa.gov/CodeReviser>*

**DATED** this **xxth** day of **xxx** 2015, at Spokane, Washington.

Reviewed By:

Approved By:

\_\_\_\_\_

\_\_\_\_\_

Preliminary Determination  
November 16, 2015

Sabey Intergate-Quincy Data Center  
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Gary J. Huitsing, P.E.  
Science and Engineering Section  
Air Quality Program  
Department of Ecology  
State of Washington

Karen K. Wood, Section Manager  
Regional Air Quality Section  
Eastern Regional Office  
Department of Ecology  
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