

June 4, 2001

Mr. Jack Rockwell, Head End Support  
AT&T Broadband, Inc. - Vancouver Hub  
3500 SW Bond  
Portland, OR 97201

Subject: Final Approval for Two Diesel Engine Generators

Dear Mr. Rockwell:

We have not received any adverse response from the public relative to the Preliminary Determination of Order of Approval SWCAA 01-2360 for your Notice of Construction Number CL-1515 submittal. Based upon the lack of critical response and the fact that more than 15 days time has passed since your draft order was sent to you, we are pleased to issue your final Order of Approval.

This Order of Approval may be appealed directly to the Pollution Control Hearings Board (PCHB) at P.O. Box 40903, Olympia, Washington 98504-0903 within 30 days of receipt of this Order as provided in RCW 43.21B. This Order may also be appealed as provided in SWCAA 400-250.

Thank you for your attention in this matter.

Sincerely,

Robert D. Elliott  
Executive Director

RDE:wls  
Attachment

Cc: Ian Robertson  
Robertson, Hay & Wallace  
1801 SE Grand Avenue  
Portland, OR 97214

1 IN THE MATTER OF COMPLIANCE WITH RCW )  
2 70.94 AND THE GENERAL REGULATIONS FOR ) SWCAA 01-2360  
3 AIR POLLUTION SOURCES OF THE SOUTHWEST ) ORDER OF APPROVAL  
4 CLEAN AIR AGENCY )  
5 AT&T Broadband, Inc. – Vancouver Hub RESPONDENT )  
6 Vancouver, Washington )

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8 **BACKGROUND**

- 9 1. Respondent submitted Notice of Construction (NOC) number CL-1515 dated April 18, 2001  
10 for installation and operation of two diesel engine generators at an existing cable head end  
11 facility located at 6916 NE 40<sup>th</sup> Street in Vancouver, Clark County, Washington.
- 12 2. Information contained in NOC CL-1515 indicated that:
- 13 a. Respondent proposes to install two diesel engine driven generators for the purpose  
14 of supplying emergency electrical power. The generators are described as Onan  
15 model 750DFHA package generators (serial numbers 37196040 and 37195876).  
16 Each Onan generator is powered by a Cummins model QST30-G1 diesel engine  
17 rated at 1,135 brake horsepower (BHP). The Cummins engine has a 12 cylinder,  
18 turbocharged, 4-stroke configuration with a specified fuel consumption of 54.7  
19 gallons per hour at full load. Each Onan model 750DFHA diesel engine generator  
20 has a rated electrical output of 750 kW.
- 21 b. The proposed diesel engine generators will be operated one hour or less each week  
22 for testing purposes and as necessary to provide emergency power. Respondent  
23 estimates that each diesel engine generator will be used no more than 200 hours per  
24 year for testing and emergency generation based on past electric service history.

1 c. No other equipment subject to SWCAA regulation will be installed in conjunction  
2 with the emergency generators cited above.

3 3. Emissions from the Cummins engines, as proposed in NOC CL-1515, consist of nitrogen  
4 oxides (NO<sub>x</sub>), carbon monoxide (CO), volatile organic compounds (VOC), particulate  
5 matter (PM), and sulfur dioxide (SO<sub>2</sub>).

6 a. Combined emissions from operation of the Cummins engines based on a  
7 maximum of 200 hours of operation per engine per year, an engine rating of 1,135  
8 horsepower per engine, and emission factors from the manufacturer and EPA AP-  
9 42, Table 3.4-1 (10/96) are estimated to be:

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Source</u>	<u>Emissions</u>
NO <sub>x</sub>	19.9 lb/hr/engine	Cummins	3.98 tpy
CO	0.35 lb/hr/engine	Cummins	0.07 tpy
PM <sub>10</sub>	0.23 lb/hr/engine	Cummins	0.05 tpy
VOC	0.55 lb/hr/engine	Cummins	0.11 tpy
SO <sub>2</sub>	0.46 lb/hr/engine	AP-42	0.09 tpy

16 The emission factor for SO<sub>2</sub> was calculated using the formula found in EPA AP-42,  
17 Table 3.4-1 and a maximum fuel sulfur content of 0.05% by weight.

18 b. Potential combined emissions from operation of the Cummins engines based on a  
19 maximum of 8,760 hours of operation per engine per year, an engine rating of  
20 1,135 horsepower per engine and emission factors from the manufacturer and  
21 EPA AP-42, Table 3.4-1 (10/96) are estimated to be:

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Source</u>	<u>Potential Emissions</u>
NO <sub>x</sub>	19.9 lb/hr/engine	Cummins	174.3 tpy
CO	0.35 lb/hr/engine	Cummins	3.07 tpy

	<u>Pollutant</u>	<u>Emission Factor</u>	<u>Source</u>	<u>Potential Emissions</u>
1				
2	PM <sub>10</sub>	0.23 lb/hr/engine	Cummins	2.02 tpy
3	VOC	0.55 lb/hr/engine	Cummins	4.82 tpy
4	SO <sub>2</sub>	0.46 lb/hr/engine	AP-42	4.03 tpy

5 The emission factor for SO<sub>2</sub> was calculated using the formula found in EPA AP-42,  
6 Table 3.4-1 and a maximum fuel sulfur content of 0.05% by weight.

- 7 4. Respondent certifies that, based upon the above described parameters:
- 8 a. The equipment and systems as herein described are acceptable to other agencies  
9 with jurisdiction; and
- 10 b. No other emission sources, activities, or points of atmospheric discharge or  
11 contemporaneous emission increases are being proposed for installation at this time.

12 **APPLICABLE REGULATIONS**

13 5. Regulations have been established for the control of air pollutants emitted to the ambient air.  
14 Regulations applicable to the proposed facility which have been used to evaluate the  
15 acceptability of the proposed facility and establish emission limits and control requirements  
16 include, but are not limited to, the following regulations, codes or requirements. These  
17 items establish maximum emission limits that could be allowed and are not to be exceeded  
18 for new or existing facilities. More stringent limits are established in this Order consistent  
19 with implementation of Best Available Control Technology:

- 20 a. RCW 70.94.141 empowers any activated air pollution control authority to prepare  
21 and develop a comprehensive plan or plans for the prevention, abatement and  
22 control of air pollution within its jurisdiction. An air pollution control authority  
23 may issue such orders as may be necessary to effectuate the purposes of the  
24 Washington Clean Air Act [RCW 70.94] and enforce the same by all appropriate

1 administrative and judicial proceedings subject to the rights of appeal as provided  
2 in Chapter 62, Laws of 1970 ex. sess.

3 b. RCW 70.94.152 requires that no approval to construct or alter an air contaminant  
4 source shall be granted unless all known available and reasonable means of  
5 emissions control are provided and that the operation will not aid in the  
6 contravention of ambient air quality standards.

7 c. RCW 70.94.152 provides for the inclusion of conditions of operation as are  
8 reasonably necessary to assure the maintenance of compliance with the applicable  
9 ordinances, resolutions, rules and regulations when issuing an Order of Approval for  
10 installation and establishment of an air contaminant source.

11 d. WAC 173-401-300(7) "Federally Enforceable Limits" provides that any source with  
12 the potential to emit exceeding the tonnage thresholds defined in WAC 173-401-  
13 200(18) can be exempted from the requirement to obtain an Operating Permit when  
14 federally enforceable conditions are established which limit that source's potential to  
15 emit to levels below the relevant tonnage thresholds.

16 e. WAC 173-460 "Controls for New Sources of Toxic Air Pollutants" requires Best  
17 Available Control Technology for toxic air pollutants (T-BACT), identification and  
18 quantification of emissions of toxic air pollutants and demonstration of protection of  
19 human health and safety.

20 f. WAC 173-470 "Ambient Air Quality Standards for Particulate Matter" established  
21 ambient air quality standards for total suspended particulate matter and for  
22 particulate mater smaller than 10 microns (PM<sub>10</sub>), which may not be exceeded more  
23 than one day per year.

- 1 g. WAC 173-474 "Ambient Air Quality Standards for Sulfur Oxides" establishes  
2 ambient air quality standards for sulfur oxides in the ambient air, measured as sulfur  
3 dioxide, which shall not exceed:
- 4 (1) Four-tenths part per million (0.4 ppm) by volume average for a one-hour  
5 period more than once per one-year period;
  - 6 (2) Twenty-five one-hundredths part per million (0.25 ppm) by volume average  
7 for a one-hour period more than twice in a consecutive seven-day period;
  - 8 (3) One-tenth part per million (0.1 ppm) by volume average for a one-day period  
9 more than once per one-year period; and
  - 10 (4) Two one-hundredths part per million (0.02 ppm) by volume average for a  
11 one-year period.
- 12 h. WAC 173-475 "Ambient Air Quality Standards for Carbon Monoxide, Ozone, and  
13 Nitrogen Dioxide" establishes ambient air quality standards for carbon monoxide,  
14 ozone, and nitrogen dioxide in the ambient air, which shall not be exceeded.
- 15 i. SWCAA 400-040 "General Standards for Maximum Emissions" requires all new  
16 and existing sources and emission units to meet certain performance standards with  
17 respect to Reasonably Available Control Technology (RACT), visible emissions,  
18 fallout, fugitive emissions, odors, emissions detrimental to persons or property,  
19 sulfur dioxide, concealment and masking, and fugitive dust.
- 20 j. SWCAA 400-040(1) "Visible Emissions" requires that no emission of an air  
21 contaminant from any emissions unit shall exceed twenty percent opacity for more  
22 than three minutes in any one hour at the emission point, or within a reasonable  
23 distance of the emission point.

- 1 k. SWCAA 400-040(2) "Fallout" requires that no emission of particulate matter from  
2 any source shall be deposited beyond the property under direct control of the  
3 owner(s) or operator(s) of the source in sufficient quantity to interfere unreasonably  
4 with the use and enjoyment of the property upon which the material is deposited.
- 5 l. SWCAA 400-040(3) "Fugitive Emissions," requires that reasonable precautions  
6 shall be taken to prevent the release of air contaminants to the atmosphere.
- 7 m. SWCAA 400-040(4) "Odors" requires that any person who shall cause or allow the  
8 generation of any odor from any source, which may unreasonably interfere with any  
9 other property owner's use and enjoyment of his property must use recognized good  
10 practices and procedures to reduce these odors to a reasonable minimum.
- 11 n. SWCAA 400-040(6) "Sulfur Dioxide" requires that no person shall emit a gas  
12 containing in excess of one thousand ppm of sulfur dioxide on a dry basis, corrected  
13 to 7% O<sub>2</sub> or 12% CO<sub>2</sub> as required by the applicable emission standard for  
14 combustion sources
- 15 o. SWCAA 400-040(8) "Fugitive Dust Sources" requires that reasonable precautions  
16 be taken to prevent fugitive dust from becoming airborne, and minimize  
17 emissions
- 18 p. SWCAA 400-050 "Emission Standards for Combustion and Incineration Units"  
19 requires that all provisions of SWCAA 400-040 be met and that no person shall  
20 cause or permit the emission of particulate material from any general process  
21 operation in excess of 0.23 grams per dry cubic meter (0.1 grains per dry standard  
22 cubic foot) of exhaust gas at standard conditions.

- 1 q. SWCAA 400-060 "Emission Standards for General Process Units" requires that all  
2 new and existing sources not emit particulate matter in excess of 0.1 grains per dry  
3 standard cubic foot of exhaust gas.
- 4 r. SWCAA 400-110 "New Source Review" requires that a Notice of Construction  
5 application be filed with SWCAA prior to the establishment of any new source or  
6 emission unit or modification and that an Order of Approval be issued prior to  
7 establishment of the new source or emission unit or modification.
- 8 s. SWCAA 400-111 "Requirements for Sources in a Maintenance Plan Area" requires  
9 that no approval to construct or alter an air contaminant source shall be granted  
10 unless it is evidenced that:
- 11 (1) The equipment or technology is designed and will be installed to operate  
12 without causing a violation of the applicable emission standards;
  - 13 (2) Emissions will be minimized to the extent that the new source will not  
14 exceed emission levels or other requirements provided in the maintenance  
15 plan;
  - 16 (3) Best Available Control Technology will be employed for all air  
17 contaminants to be emitted by the proposed equipment;
  - 18 (4) The proposed equipment will not cause any ambient air quality standard to  
19 be exceeded; and
  - 20 (5) If the proposed equipment or facility will emit any toxic air pollutant  
21 regulated under WAC 173-460, the proposed equipment and control  
22 measures will meet all the requirements of that Chapter.

**REGULATORY FINDINGS**

- 1
- 2 6. The proposed equipment and control systems incorporate Best Available Control  
3 Technology (BACT) for the types and amounts of air contaminants emitted by the processes  
4 as described below:
- 5 a. Modern combustion design for diesel-fired engines, the use of low-sulfur diesel fuel  
6 not to exceed 0.05% sulfur by weight, and limitation of engine/generator operation  
7 to testing and actual power interruptions meets the requirements of BACT for the  
8 proposed diesel engine generators.
- 9 7. The diesel engine generators, as proposed in NOC CL-1515, will not cause the ambient air  
10 quality standards established by Washington Administrative Code (WAC) 173-470  
11 "Ambient Air Quality Standards for Particulate Matter", WAC 173-474 "Ambient Air  
12 Quality Standards for Sulfur Oxides", WAC 173-475 "Ambient Air Quality Standards for  
13 Carbon Monoxide, Ozone, and Nitrogen Dioxide", and Title 40 Code of Federal  
14 Regulations Part 50 (40 CFR 50) "National Primary and Secondary Ambient Air Quality  
15 Standards" to be violated.
- 16 8. The diesel engine generators, as proposed in NOC CL-1515, if properly installed and  
17 maintained, can be operated without causing a violation of emission standards for sources as  
18 established under Southwest Clean Air Agency General Regulations Sections 400-040  
19 "General Standards for Maximum Emissions", 400-050 "Emission Standards for  
20 Combustion and Incineration Units", and 400-060 "Emission Standards for General Process  
21 Units".

1 EMISSION LIMITS/REQUIREMENTS

2 NOW, HAVING CONSIDERED THIS MATTER AND BEING DULY ADVISED, IT IS  
3 HEREBY ORDERED:

4 OPERATIONAL REQUIREMENTS

5 9. THAT, the diesel engine generators, as described in NOC CL-1515, be approved, subject to  
6 the requirements presented below and in Appendix A:

7 a. Combined emissions from the Cummins engines listed in this Order shall not  
8 exceed:

<u>Pollutant</u>	<u>Emission Limit (tpy)</u>
NOx	4.0
CO	0.1

12 Emissions shall be determined based on annual hours of operation and the  
13 emission factors listed below:

<u>Pollutant</u>	<u>Emission Factor</u>
NO <sub>x</sub>	19.9 lb/hr/engine
CO	0.35 lb/hr/engine
VOC	0.55 lb/hr/engine
PM <sub>10</sub>	0.23 lb/hr/engine
SO <sub>2</sub>	0.46 lb/hr/engine

20 b. Emissions from generator engine exhaust shall not exceed five percent opacity for  
21 more than 3 minutes in any one hour period as determined by a Certified Observer  
22 certified in accordance with 40 CFR 60, Appendix A, Method 9 "Visual  
23 Determination of the Opacity of Emissions From Stationary Sources" with data

1 acquisition and reduction as provided in SWCAA 400, Appendix A “SWCAA  
2 Method 9”.

3 c. The diesel engine generators listed in this Order shall only be operated for testing  
4 purposes and power production during periods of actual power interruption.

5 d. Total operation of each diesel engine generator listed in this Order shall not  
6 exceed 200 hours per year. A nonresettable hour meter shall be installed and used  
7 to measure hours of operation. If unavoidable power interruptions cause this  
8 limitation to be exceeded, Respondent shall immediately report the event to  
9 SWCAA as provided in SWCAA 400-107.

10 e. The Cummins engines shall only be fired on number 2 diesel with a maximum fuel  
11 sulfur content of 0.05% by weight. Respondent may use a fuel certification from the  
12 fuel supplier as a means of demonstrating compliance with this requirement.

13 f. Operations which cause or contribute to odors which unreasonably interfere with  
14 any other property owner's use and enjoyment of their property shall use  
15 recognized good practice and procedures to reduce these odors to a reasonable  
16 minimum.

17 g. An Operations and Maintenance (O/M) log, including the date and name of the  
18 person making each entry, shall be maintained for the diesel engine generators listed  
19 in this Order to document the following:

20 (1) Actual hours of diesel engine generator operation recorded monthly for each  
21 unit; and

22 (2) Upset conditions or breakdowns recorded for each occurrence.

1 The O/M log shall be kept available on site for inspection by SWCAA  
2 representatives. All records shall be maintained for a minimum period of three (3)  
3 years.

4 h. The following records shall be reported to SWCAA as indicated below:

5 (1) Hours of operation for each diesel engine generator reported annually by  
6 March 15th for the previous calendar year;

7 (2) Fuel consumption for each diesel engine generator reported annually by  
8 March 15th for the previous calendar year;

9 (3) Estimated emissions reported annually by March 15th for the previous  
10 calendar year; and

11 (4) Upset conditions reported to SWCAA in accordance with SWCAA 400-107.

12 10. THAT, Respondent shall notify SWCAA in writing within ten (10) days after completing  
13 initial installation. This notification will allow proper inspections and observations to be  
14 conducted for the equipment in a timely fashion.

15 11. THAT, the emission units specified in NOC CL-1515 shall be maintained and operated in  
16 total and continuous conformity with the emissions levels afforded by BACT. If the  
17 requirements specified in this section and Appendix A cannot be maintained, then operation  
18 of the affected emission unit shall be terminated until corrective action has been completed.

19 GENERAL REQUIREMENTS

20 12. THAT, for the purpose of ensuring compliance with this Order, duly authorized  
21 representatives of the Southwest Clean Air Agency shall be permitted access to  
22 Respondent's premises and the facilities being constructed, owned, operated and/or  
23 maintained by Respondent for the purpose of inspecting said facilities. These inspections

1 are required to determine the status of compliance with this Order and applicable regulations  
2 and to perform or require such tests as may be deemed necessary.

3 13. THAT, the provisions, terms and conditions of this Order shall be deemed to bind  
4 Respondent, its officers, directors, agents, servants, employees, successors and assigns, and  
5 all persons, firms, and corporations acting under or for it.

6 14. THAT, this Order shall be posted conspicuously at or be readily available near the source.

7 15. THAT, if construction/installation has not commenced within eighteen months from date of  
8 issuance, this Order shall be invalid.

9 16. THAT, this Order does not supersede requirements of other Agencies with jurisdiction and  
10 further, this Order does not relieve Respondent of any requirements of any other  
11 governmental Agency. In addition to this Order, Respondent may be required to obtain  
12 permits or approvals from other agencies with jurisdiction.

13 17. THAT, compliance with this Order of Approval and its requirements does not relieve  
14 Respondent from the responsibility of compliance with SWCAA General Regulations for  
15 Air Pollution Sources, previously issued Regulatory Orders, RCW 70.94, Title 173 WAC or  
16 any other applicable emission control requirements, nor from the resulting liabilities and/or  
17 legal remedies for failure to comply.

18 18. THAT, for the purpose of ensuring compliance with the terms of this Order and applicable  
19 federal, state, and local requirements, the Southwest Clean Air Agency, in accordance with  
20 RCW 70.94, retains the right to impose additional requirements on this source as necessary.

21 19. THAT, Respondent shall have the burden of proof regarding unavoidable conditions that  
22 lead to excess emissions in accordance with SWCAA 400-107 "Excess Emissions." Excess  
23 emissions shall be reported to SWCAA as soon as possible. Respondent shall call in the  
24 upset condition via telephone as initial notification to SWCAA; a message may be left on

1 the answering machine for conditions outside of normal business hours. Respondent shall  
2 record the upset conditions in the operations log for periodic inspection by SWCAA. A full  
3 report may be required by SWCAA if determined to be necessary.

4 20. THAT, if any provision of this Order shall be declared invalid by any court of competent  
5 jurisdiction, all unaffected provisions of this Order shall remain in effect and be enforceable.

6 21. THAT, the requirements of this Regulatory Order shall survive any transfer of ownership of  
7 the source or any portion thereof.

8 DATED this 4th day of June, 2001

9  
10 Reviewed by: \_\_\_\_\_

11 Paul T. Mairose, P.E.

12 Chief Engineer

13  
14 Authorized by: \_\_\_\_\_

15 Robert D. Elliott

16 Executive Director

17 Southwest Clean Air Agency

**Appendix A** **Page 1 of 2**  
**Condensed Summary of Operational Requirements**

**AT&T Broadband, Inc. – Vancouver Hub Order of Approval No. 01-2360**  
**Installation of Two Diesel Engine Generators**

<b>1. Emissions Limitations:</b>	<b><u>Approval Limit/Requirements:</u></b>
a. Combined emissions from Cummins engines	Shall not exceed:
(1) NO <sub>x</sub>	4.0 tpy
(2) CO	0.1 tpy
b. Opacity from generator engine exhaust	Five percent*

\* Shall not exceed listed value for greater than 3 minutes in any one-hour period as determined by a Certified Observer certified in accordance with EPA Method 9 with data reduction as specified in SWCAA 400-040(1).

c. Emissions to the atmosphere which cause or contribute to a nuisance odor	Shall use recognized good practice and procedures to reduce these odors to a reasonable minimum
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**2. Operational Limitations:**

a. Diesel engine generator use restriction	Shall be operated only for testing and periods of avoidable power interruption
b. Diesel engine generator operation	Shall not operate more than 200 hours per year as recorded by a nonresetttable hour meter. If unavoidable power interruption causes this limit to be exceeded, SWCAA shall be notified immediately as provided in SWCAA 400-107
c. Approved fuel	Only #2 diesel with a maximum fuel sulfur content of 0.05% by weight.

**Appendix A** **Page 2 of 2**  
**Condensed Summary of Operational Requirements**

**AT&T Broadband, Inc. – Vancouver Hub Order of Approval No. 01-2360**  
**Installation of Two Diesel Engine Generators**

**3. Monitoring/Recordkeeping Requirements:**

**Approval Limit/Requirements:**

- |    |  |  |
|----|--|--|
| a. | Operation and Maintenance (O/M) log        | Shall be kept on-site. Each entry shall include the date and name of the person making the entry, and be maintained for a minimum period of 3 years. |
| b. | Hours of diesel engine generator operation | Shall be recorded in O/M log monthly   |
| c. | Upset condition or breakdown               | Shall be recorded in O/M log for each occurrence   |

**4. Reporting Requirements:**

- |    |   |   |
|----|---|---|
| a. | Hours of operation for each diesel engine generator | Reported to SWCAA annually by March 15 <sup>th</sup> for the previous calendar year |
| b. | Fuel consumption for each diesel engine generator   | Reported to SWCAA annually by March 15 <sup>th</sup> for the previous calendar year |
| c. | Estimated diesel engine generator emissions         | Reported to SWCAA annually by March 15 <sup>th</sup> for the previous calendar year |
| d. | Upset conditions                                    | Reported to SWCAA via telephone in accordance with SWCAA 400-107                    |

**State Environmental Policy Act**

**DETERMINATION OF NONSIGNIFICANCE (DNS)**

**Description of proposal:**

NOC CL-1515: Installation of two diesel engine generators. The proposed diesel generators will only operate for testing purposes and during periods of actual power interruption. Modern combustion design and a fuel sulfur content limitation of 0.05% by weight or less will be used to minimize emissions to the atmosphere.

**Proponent:**

AT&T Broadband, Inc. – Vancouver Hub (Jack Rockwell, Head End Support)

**Location of proposal, including street address if any:**

6916 NE 40<sup>th</sup> Street in Vancouver, Washington 98661

**Lead agency:** Southwest Clean Air Agency

**The lead agency for this proposal has determined that it does not have a probable significant impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.**

- There is no comment period for this DNS.
- This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 15 days from the date below. Comments must be submitted by \_\_\_\_\_.

**Responsible official:** Paul T. Mairose, P.E.

**Position/title:** Chief Engineer

**Address:** Southwest Clean Air Agency  
1308 NE 134th Street  
Vancouver, WA 98685-2747

**Phone:** (360) 574-3058 ext 30

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

Date: \_\_\_\_\_