Public Health

Air Quality

Air Quality Management Division 1001 E. Ninth Street, Suite B171 Reno, NV 89512 Phone: 775-784-7200 www.OurCleanAir.com

STATIONARY SOURCE TECHNICAL SUPPORT DOCUMENT (STATEMENT of BASIS)

APPLICATION FOR: Synthetic Minor, Minor Permit Revision

> SUBMITTED BY: Apple Inc.

PERMIT NUMBER: AAIR16-0082

LOCATION: 21505 Reno Technology Way, Sparks, Nevada 89442

SIC code: 7374, "Computer Processing and Data Preparation and Processing Services" NAICS code: 518210, "Computing Infrastructure Providers, Data Processing, Web Hosting, And Related Services"

6/6/2025

EXECUTIVE SUMMARY

This TSD establishes the methodology related to the terms and conditions of its Minor Source Permit issued pursuant to DBOH Regulation 030. The TSD shall not serve as the operating authority.

Apple Inc. (Apple) is a data center operating at 21505 Reno Technology Way in Washoe County. The source operates 43 emergency engines to provide power to the facility in emergency situations. As a data center, the source is classified under SIC code 7374, "Computer Processing and Data Preparation and Processing Services" and NAICS code 518210, "Computing Infrastructure Providers, Data Processing, Web Hosting, And Related Services".

Apple consists of four (4) 2,000 kW emergency engines, twelve (12) 2,750 kW emergency engines, and twenty-four (24) 4,000 kW emergency engines. The source also operates two (2) 250 kW emergency engines, one (1) 300 kW emergency engine, one (1) gasoline storage tank, and five (5) diesel storage tanks as insignificant activities. The 12 2,750 kW engines and 24 4,000 kW engines will each have selective catalytic reduction, diesel oxidation catalyst, and diesel particulate filter controls installed. All of the engines are subject to the federal requirements of 40 CFR Part 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ. Pursuant to DBOH Regulations 030, a minor source undergoing modification must obtain a Permit to Construct (PTC) before beginning construction.

Apple Inc. will remain classified as a synthetic minor source of regulated air pollutants, with the Source PTE provided below in Table 1. In addition, the permit will be issued, based on the Permit to Construct (PTC) permit application that was submitted on December 3, 2024.

Pollutant	Major Source Threshold (PSD)	Major Source Threshold (Part 70)	Minor Source Threshold	Source PTE	Projected Actual Emissions	Allowable Emissions
PM10	250^{1}	100	5	6.69	0.15	1.71
PM2.5	250^{1}	100	5	6.69	0.15	1.71
СО	250^{1}	100	5	62.14	1.56	18.27
VOC		100	5	9.02	0.19	2.18
NO _x	250^{1}	100	5	679.07	8.11	95.0
SO ₂		100	5	1.16	0.06	0.68
Pb			0.3	-	-	-
H ₂ S			5	-	-	-
TRS			5	-	-	-
HAP – single/total		10/25 ²		1.45	0.15	1.75

 Table 1: Source PTE – Summary (tons per year)

¹ Threshold is 100 tons per year for the 28 listed source categories listed in 40 CFR 51.166(b)

² 10 for one individual HAP, 25 for total combined HAPs

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ACRONYMS AND ABBREVIATIONS

(These terms may be seen in the technical support document)

AQMD	Northern Nevada Public Health Air Quality Management Division					
bhp	brake horsepower					
CARB	California Air Resources Board					
CE	control efficiency					
CF	control factor					
CFR	Code of Federal Regulations					
CO	carbon monoxide					
DBOH Regula	ations District Board of Health Regulations Governing Air Quality Management					
DOM	date of manufacture					
EF	emission factor					
EI	emission increase					
EPA	U.S. Environmental Protection Agency					
EU	emission unit					
g/kW-hr	grams per kilowatt-hour					
gr/dscf	grains per dry standard cubic foot					
GDO	gasoline dispensing operation					
gpm	gallons per minute					
HAP	hazardous air pollutant					
H ₂ S	hydrogen sulfide					
HHV	high heating value					
HVLP	high volume low pressure					
kW	kilowatt					
mg/dscm	milligrams per dry standard cubic meter					
MMBtu	British thermal units (in millions)					
NAICS	North American Industry Classification System					
NO.	nitrogen oxide					
Ph	lead					
PM ₂₅	narticulate matter less than 2.5 microns in aerodynamic diameter					
\mathbf{PM}_{10}	particulate matter less than 10 microns in aerodynamic diameter					
	parte per million					
ppin	Provention of Significant Deterioration					
	notantial to amit					
	potential to entit					
RACI	reasonably available control technology					
RICE	Service Classification Codes					
SCC	Source Classification Codes					
SCI	standard cubic feet					
SIC	Standard Industrial Classification					
	sulfur dioxide					
ISD	lechnical Support Document					
USGS	U.S. Geological Survey					
UIM	Universal Transverse Mercator					
VAEL	Voluntarily Accepted Emission Limit					
VMT	vehicle miles traveled					
VOC	volatile organic compound					

I. SOURCE INFORMATION

A. General

Preparer:	Brandon Koyama
Action Received:	11/25/2024
TSD Date:	6/6/2025
Company:	Apple Inc.
Responsible Official:	Pankaj Garg, Environmental Program Manager – Global Data Centers
Consultant:	Tiffany Cuni, ERM
Permit Number:	AAIR16-0082
Facility Name:	Apple Inc.
Facility Address:	21505 Reno Technology Way, Sparks, Nevada 89442

B. Facility Description

Apple Inc. is a data center located in Hydrographic Area 083. This source category falls under Standard Industry Classification (SIC) code 7374, "Computer Processing and Data Preparation and Processing Services" and North American Industrial Classification System (NAICS) code 518210, "Computing Infrastructure Providers, Data Processing, Web Hosting, And Related Services". This is a synthetic minor source of regulated air pollutants. This source consists of 40 emergency engines. The source also operates three emergency engines, one gasoline storage tank, and five diesel storage tanks as insignificant activities. Upon modification, 36 of the 40 engines will operate selective catalytic reduction (SCR), diesel oxidation catalyst (DOC), and diesel particulate filters (DPF) installed as control devices. The source has taken a voluntarily accepted emission limit (VAEL) through operational limitations to avoid becoming a major source. This source is subject to 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ.

C. Permitting History

- 1. The last permit was issued on June 6, 2024.
- 2. An application was received on December 3, 2024.
- 3. The draft permit and TSD were sent for review on 4/28/2025.
- 4. This permitting action is for the installation of SCR, DOC, and DPF on all System B emergency engines (B.001 through B.012).

D. Permitting Action

This source is an existing synthetic minor source that is submitting an application to voluntarily install SCR, DOC, and DPF controls to the 12 emergency engines in System B. No changes to the facility's emissions limits were requested as part of this permitting action.

Table 2 below lists affected or relevant units, including SCC. A full list of the source's emissions units can be found in Section VIII.A: List of Emissions Units.

EU	Туре	Manufacturer	Model No.	Rating	Serial No.	SCC
B.001- B.012	Emergency Engine	Cummins	2750DQLF	2,750 kW	N/A	20100102
CT.001, CT.004, CT.007, CT.010, CT.013, CT.016, CT.019, CT.022, CT.025, CT.028, CT.031, CT.034	Selective Catalytic Reduction	Miratech	SCRC-044- 150-450	N/A	N/A	N/A
CT.002, CT.005, CT,008, CT.011, CT.014, CT.017, CT.020, CT.023, CT.026, CT.029, CT.032, CT.035	Diesel Oxidation Catalyst	Miratech	SCRC-044- 150-450	N/A	N/A	N/A
CT.003, CT.006, CT.009, CT.012, CT.015, CT.018, CT.021, CT.024, CT.027, CT.030, CT.033, CT.036	Diesel Particulate Filters	Miratech	LTR2-DPF- Filter-Block	N/A	N/A	N/A

Table 2: List of Affected Emissions Units

Due to the revisions to DBOH Regulations 030 and the provisions of DBOH Regulations 030.020.B.2 that went into effect on January 1, 2025, some of the emissions units at this facility are reclassified as insignificant activities as part of this permitting action. The emissions units reclassified as insignificant activities are shown below in Table 3. A full list of all insignificant activities can be found in Section VIII.B: List of Insignificant Activities.

Insignificant Activity ID	Description			
IA.008-IA.009	Generac SD250 250 kW Wells 2 and 3 Emergency Engines			
IA.010	Caterpillar C9 300 kW Well 4 Emergency Engine			

Table 3: List of Emissions Units Reclassified as Insignificant Activities

E. Alternative Operating Scenario

No alternative operating scenario proposed.

II. EMISSIONS INFORMATION

A. Total Source Potential to Emit and Source Applicability

DBOH Regulation 030 permitting applicability is determined by calculating the emissions for all proposed emission units using 8,760 hours of operation (except for emergency engines or fire pumps which is using 500 hours) and emission factors provided by the manufacturer, source test results, EPA AP-42, and other reputable sources.

For all emergency engines, PTE for PM10, PM2.5, NO_x, CO, and VOC was calculated using manufacturers' specifications for operation at 100% load. SO₂ and total HAPs PTE was calculated using AP-42 Chapter 3.4 emission factors. To calculate projected actual emissions rates, estimated operating hours of 52 hours per year per engine and control efficiencies for SCR (NO_x control), DOC (CO and VOC control), and DPF (PM10 and PM2.5 control) provided by the manufacturer were used. Allowable emissions were back-calculated using the requested 95 tpy NOx limit. It was determined that all engines could operate 609 hours before exceeding the 95 tpy limit. Allowable emissions for PM10, PM2.5, CO, VOC, SO₂, and HAP were calculated using 609 hours. The emissions summary for DBOH Regulation 030 applicability is shown in Table 4.

Emissions from insignificant activities were calculated to determine permitting applicability but are not included in projected actual emissions.

Pollutant	Major Source Threshold (PSD)	Major Source Threshold (Part 70)	Minor Source Threshold	Source PTE	Projected Actual Emissions	Allowable Emissions
PM10	250^{3}	100	5	6.69	0.15	1.71
PM2.5	250 ³	100	5	6.69	0.15	1.71
СО	250^{3}	100	5	62.14	1.56	18.27
VOC		100	5	9.02	0.19	2.18
NO _x	250^{3}	100	5	679.07	8.11	95.0

 Table 4. Source Applicability Emissions (tons per year)

³ Threshold is 100 tons per year for the 28 listed source categories listed in 40 CFR 51.166(b)

SO ₂	100	5	1.16	0.06	0.68
Pb		0.3	-	-	-
H ₂ S		5	-	-	-
TRS		5	-	-	-
HAP – single/total	10/254		1.45	0.15	1.75

DBOH Regulation 030.200 states a source with a PTE for any regulated pollutant equal to or greater than the threshold of 5.0 tons per year shown in Table 4, will be applicable to the permitting requirements of DBOH Regulation 030.

This source exceeds the applicability limit for PM10, PM2.5, CO, VOC, NO_x , and SO_2 and is required to obtain an air quality permit as shown in Table 4. The source is taking a VAEL to avoid being subject to Part 70 permitting and will be subject to the emissions limits listed in Table 4.

B. Emission Units and PTE

The PTE and projected actual emissions for the affected emissions units are shown below in Table 5.

	J J	
Pollutant	System B (B.001-B.012) PTE	System B Projected Actual Emissions
PM10	1.46	0.04
PM2.5	1.46	0.04
CO	10.49	0.25
VOC	3.41	0.05
NO _x	156.10	1.27
SO ₂	0.54	0.01
Pb	-	-
H ₂ S	-	-
TRS	-	-
HAP - combined	0.34	0.04

Table 5: System B PTE and Projected Actual Emissions (tons/year)

C. Emissions Increase

The applicant did not propose a modification that would increase the source PTE. The decrease in projected actual emissions is due to the installation of SCR, DOC, and DPF on emissions units B.001 through B.012. The three emergency engines associated with Well 2, Well 3, and Well 4 have been reclassified as insignificant activities pursuant to DBOH Regulations 030.020.B.2. No other modifications occurred in this permitting action.

⁴ 10 for one individual HAP, 25 for total combined HAPs

	Emissions Increase Due to PTC Units	Projected Actual Emissions Increase Due to Modified Emission Units	Emissions Decrease Due to Removed Units	Emissions Decrease Due to Units Reclassified as Insignificant	Permitting Action Emissions Increase	Minor Source Significance Threshold
PM10		-0.11		-0.06		15
PM2.5		-0.11		-0.06		10
CO		-0.84		-0.21		40
VOC		-0.30		-0.07		20
NO _x		-14.97		-0.96		100
SO ₂		-		-0.06		20
Pb		-		-		0.6
H ₂ S		-		-		5
TRS		-		-		5
HAP - combined		-0.34		-0.06		

Table 6: Permitting Action Emissions Increase (tons per year)

D. Operational Limits

The emergency engines shall be limited to operate 100 hours per year for testing and maintenance purposes, including nonemergency limitations. On May 1, 2015, the U.S. Court of Appeals for the D.C. Circuit issued a decision to vacate provisions in 40 CFR Part 60 Subpart IIII and 40 CFR Part 63 Subpart ZZZZ that allowed emergency engines to operate for demand response and when there is a deviation of voltage or frequency. Therefore, AQMD is prohibiting sources from operating emergency generators for those activities, which is consistent with the court decision and EPA's implementation memo dated April 15, 2016. In order to utilize the generator to operate for demand response or when there is a deviation of voltage or frequency, the source must request that the engine be treated as a nonemergency engine.

E. Control Technology/Best Systems of Control Analysis

The applicant is proposing to voluntarily install SCR, DOC, and DPF controls on emissions units B.001 through B.012, each, to reduce the environmental impact of the source. SCR control efficiency for NO_x emissions is assumed to be 92%. DOC control efficiency for VOC and CO is assumed to be 86% and 77%, respectively. DPF control for PM10 and PM2.5 is assumed to be 75%. All control efficiencies were based on manufacturer specifications.

The operation of the SCR and DOC controls depend on the exhaust gas temperature to function effectively. For SCR, the exhaust gas temperature must reach approximately 572 °F for urea injection to occur and the catalyst to operate properly. Similarly, for DOC, the exhaust gas temperature must reach approximately 450 °F to effectively control CO and VOC emissions. This means that the SCR and DOC controls do not operate during periods of startup until the exhaust

gas reaches the required temperatures for proper control. DPF is passive control and does not depend on exhaust gas temperature. Apple assumes that the engine exhaust gas reaches the minimum required exhaust gas temperature in 60, 30, 25, and 20 minutes during startup at 25%, 50%, 75%, and 100% operating load, respectively. For periods of startup, emissions of NO_x, CO, and VOC are considered uncontrolled. The source monitors operating loads of each engine and operation of control devices to more accurately calculate emissions.

A BSC analysis is not required for this permitting action as the emissions increase does not exceed the minor source significance threshold detailed in DBOH Regulations 030.200.B.

F. Emissions Limits/Allowable Emissions

The following quantities of emissions are the facility's allowable emissions based upon the source's potential to emit, as determined by the physical and operational design of the equipment and any practically enforceable permit conditions that limit the emissions of the source based on use of emissions control equipment, controlled operating rates, hours of operation, or other emissions control methods. The following quantities are used to determine annual permit maintenance fees and are enforceable emissions limits:

- 1. The discharge of PM10 to the atmosphere shall not exceed 1.71 tons per 12-month rolling period.
- 2. The discharge of PM2.5 to the atmosphere shall not exceed 1.71 tons per 12-month rolling period.
- 3. The discharge of sulfur dioxide to the atmosphere shall not exceed 0.68 tons per 12-month rolling period.
- 4. The discharge of nitrous oxides to the atmosphere shall not exceed 95.0 tons per 12-month rolling period.
- 5. The discharge of carbon monoxide to the atmosphere shall not exceed 18.27 tons per 12-month rolling period.
- 6. The discharge of volatile organic compounds to the atmosphere shall not exceed 2.18 tons per 12-month rolling period.
- 7. The discharge of total Hazardous Air Pollutants to the atmosphere shall not exceed 1.75 tons per 12-month rolling period.

The source shall comply with the emissions standards in 40 CFR 89.112 and 40 CFR 89.113 for new nonroad CI engines for the same model year and maximum engine power. The emission standards are provided in Table 7.

Table 7. Emission Standards for Emergency Diesel Generator, in g/kW-hr (g/bhp-hr)						
	G t					

Maximum Engine Power	Starting Model Year	CO	NMHC/VOC	NOx	РМ
kW > 560 (hp > 750)	2006	3.5 (2.6)	0.19 (0.14)	0.67 (0.50)	0.04 (0.03)

G. Monitoring

Apple is required to monitor hours of operation and fuel consumption for all emergency engines. The source also monitors operating loads of each engine as well as control device operation to more accurately calculate emissions to demonstrate compliance with the emissions limits.

H. Increment

Figure 1 below shows the PSD triggered areas in Washoe County.



Figure 1. Washoe County 15D Triggered Areas

This source exists in HA 083 and is subject to increment consumption tracking. As the only new equipment being installed consists of control devices, no increment will be consumed.

I. Performance Testing

Upon installation and startup of the control technologies CT.001 through CT.036, Apple will be required to conduct performance testing on engines B.001 through B.012 to demonstrate compliance with the Tier 4F emissions limits. The source may opt to conduct pooled source testing in which at least one-third of the engines are tested during the initial source test, and subsequent source tests shall be conducted on a different one-third of the engines. Subsequent testing of pooled engines will be conducted at least every three years from the date of the previous source test, and all pooled engines are required to be tested at least once every nine years.

C.001 through C.012 and D.001 through D.012, which also operate with similar SCR, DOC, and DPF control devices, will also be required to perform source testing upon the renewal of Apple's Permit to Operate. Testing conditions for these engines will not be incorporated into the Permit to Operate as a part of this permitting action.

III. REGULATORY REVIEW

A. Local Regulatory Requirements

This source is subject to the permitting requirements of DBOH Regulations 030 and the synthetic minor permit requirements of DBOH Regulations 010.090.

B. Federally Applicable Regulations

The engines at this source are subject to 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ and so must meet the fuel requirements referenced therein from 40 CFR Subpart I, §80.510(b) for nonroad diesel fuel. The source must purchase diesel fuel that meets the per-gallon standard of 15 ppm maximum sulfur content, a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. As all refiners and importers of non-road diesel fuel are also subject to these federal standards pursuant to 40 CFR §80.510, it is reasonable to assume the operators of the engines have very little opportunity, if any, to acquire fuel that violates these standards. Therefore, the Permittee is not required by the operating permit to monitor or keep records of the sulfur content, cetane index, or aromatic content of the diesel fuel used in their engines. (EU: B.001-B.012)

The engines at this source are subject to 40 CFR 60 Subpart IIII and 40 CFR 63 Subpart ZZZZ. The source will meet the requirements of Subpart ZZZZ by meeting the requirements of Subpart IIII.

The emergency engines are stationary RICE manufactured after the year 2005, located at an area source of HAP emissions and operated according to the definition of an emergency stationary RICE under 40 CFR 63.6675. The emergency generator shall be limited to the operating provisions specified in 63.6640(f)(1) through (f)(4). Therefore, the emergency generator does not need to meet all the requirements of non-emergency engines as specified by 40 CFR 63, Subpart ZZZZ.

The emergency engines are existing commercial stationary RICE manufactured after the year 2005, located at an area source of HAP emissions and operated according to the definition of an emergency stationary RICE under 40 CFR 63.6675. The emergency generator shall be limited to the operating provisions specified in 63.6585(f). Therefore, the emergency generator does not need to meet all the requirements of non-emergency engines as specified by 40 CFR 63, Subpart ZZZZ.

The emergency engines are existing stationary ICE manufactured after the year 2005, located at an area source and operated according to the definition of an emergency stationary ICE under 40 CFR 60.4219. The emergency generator shall be limited to the operating provisions specified in 40 CFR 60.4211(f), Subpart IIII.

The emergency engines are powered by a constant-speed compression-ignition engine and are therefore exempt from the requirements of 40 CFR 89.113 that are referenced in 40 CFR Part 60 Subpart IIII.

IV. COMPLIANCE

A. Compliance Certification

The owner or operator shall follow the reporting schedule outlined below in Table 8.

Required Report	Applicable Period	Due Date ⁵
Annual Compliance Certification Report	Once per calendar year	March 31 each year
Annual Emissions Report	Once per calendar year	March 31 each year
Notification of Malfunctions, Startup, Shutdowns, or Deviations with Excess Emissions	As required	Within 24 hours of owner or operator learning of the event
Report of Malfunctions, Startup, Shutdowns, or Deviations with Excess Emissions	As required	Within 72 hours of notification
Deviation Report with Excess Emissions	As required	Along with annual report

 Table 8: Reporting Schedule

B. Summary of Monitoring for Compliance

The permittee shall follow the compliance monitoring requirements outlined in Table 9.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A.001- A.004, B.001- B.012, C.001- C.012,	Emergency Engines	PM10, PM2.5, SO ₂ , NO _x CO, VOC, HAP	Synthetic Minor permit limit	Annual emissions limits.	Recordkeeping of hours of operation and fuel consumption required.

 Table 9: Compliance Monitoring Summary

⁵ If the due date falls on a Saturday, Sunday, or federal or Nevada holiday, then the submittal is due on the next regularly scheduled business day.

D.001- D.012					
A.001- A.004, B.001- B.012, C.001- C.012, D.001- D.012	Emergency Engines	PM10, PM2.5, NMHC + NO _x , CO	40 CFR 60 Subpart IIII	Annual emissions limits. Emissions limitations based on hours of operation for testing and maintenance. Sulfur in No. 2 diesel fuel limited to 15 ppm.	Recordkeeping of hours of operation and fuel consumption. Records of fuel sulfur content. Manufacturer's emissions data.

V. NAAQS ANALYSIS

The NNPH AQMD does not require modeling for stationary sources to demonstrate NAAQS compliance, and therefore, no modeling was required for this source. Area monitoring throughout Washoe County is used to demonstrate compliance with the NAAQS. Table 10 below summarizes Washoe County's current design values in comparison to the NAAQS.

NAAQS	5		Desigr	nations
Pollutant (Averaging Time)	Level	Design Value	Unclassifiable/ Attainment, or Maintenance	Non- Attainment (classification)
O ₃ (8-hour)	0.070 ppm	0.066 ppm	All HA's	
PM _{2.5} (24-hour)	35 µg/m ³	$34 \ \mu g/m^3$	All HA's	
PM _{2.5} (Annual)	9.0 $\mu g/m^{3}$	$7.9 \ \mu g/m^3$	All HA's	
PM ₁₀ (24-hour)	150 μg/m ³	1.3 Expected Exceedances	All HA's ¹	
CO (1-hour)	35 ppm	1.7 ppm	All HA's	
CO (8-hour)	9 ppm	1.2 ppm	All HA's ²	
NO ₂ (1-hour)	100 ppb	47 ppb	All HA's	
NO ₂ (Annual Mean)	53 ppb	10 ppb	All HA's	

Table 10: Design Values and Attainment Status (as of December 31, 2024)

SO ₂ (1-hour)	75 ppb	3 ppb	All HA's	
Pb (Rolling 3-month average)	$0.15 \ \mu g/m^3$	n/a	All HA's	

¹Maintenance Area for PM₁₀ (1st 10-year maintenance plan expires January 6, 2026) **80 FR 76232** ²Maintenance Area for CO (2nd 10 year maintenance plan expires October 31, 2026) **81 FR 59490**

VI. PUBLIC PARTICIPATION

As this permitting action is for a source taking a VAEL to avoid being subject to Part 70 permitting, the AQMD will provide an opportunity for public participation. A copy of the application, draft Permit to Operate, this TSD, and Notice of Proposed Action (NPA) will be posted to the AQMD website for a 30-day public review period. Persons wishing to comment on this permitting action should refer to the comment submission procedure detailed on the NPA.

VII. RECOMMENDED ACTION

The AQMD recommends issuing a synthetic minor source Permit to Construct to Apple Inc. for the following control devices:

- CT.001, CT.004, CT,007, CT.010, CT,013, CT.016, CT.019, CT.022, CT.025, CT.028, CT.031, CT.034: Selective Catalytic Reduction
- CT.002, CT.005, CT,008, CT.011, CT,014, CT.017, CT.020, CT.023, CT.026, CT.029, CT.032, CT.035: Diesel Oxidation Catalyst
- CT.003, CT.006, CT,009, CT.012, CT.015, CT,018, CT.021, CT.024, CT.027, CT.030, CT.033, CT.036: Diesel Particulate Filters



VIII. ATTACHMENTS

A. List of Emissions Units

A list of all emissions units owned and operated by Apple is shown below in Table 11.

EU	Туре	Manufacturer	Model No.	Rating	Serial No.	SCC
System A: ENG001- ENG004	Emergency Engine	MTU	16V4000 G43	2,000 kW	N/A	20100102
System B: B.001- B.012	Emergency Engine	Cummins	2750DQLF	2,750 kW	N/A	20100102
CT.001, CT.004, CT,007, CT.010, CT.013, CT.016, CT.019, CT.022, CT.025, CT.025, CT.028, CT.031, CT.034	Selective Catalytic Reduction	Miratech	SCRC-044- 150-450	N/A	N/A	N/A
CT.002, CT.005, CT,008, CT.011, CT.014, CT.017, CT.020, CT.023, CT.026, CT.029, CT.032, CT.035	Diesel Oxidation Catalyst	Miratech	SCRC-044- 150-450	N/A	N/A	N/A

Table 11	: List	of Emissions	Units
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CT.003, CT.006, CT.009, CT.012, CT.015, CT.015, CT.021, CT.021, CT.024, CT.027, CT.030, CT.033, CT.036	Diesel Particulate Filters	Miratech	LTR2-DPF- Filter-Block	N/A	N/A	N/A
System C: C.001- C.012	Emergency Engine	Caterpillar	C175-20	4,000 kW	N/A	20100102
CT.037, CT.040, CT,043, CT.046, CT.049, CT.052, CT.055, CT.058, CT.061, CT.064, CT.067, CT.070	Selective Catalytic Reduction	Miratech	SCRC-044- 150-450	N/A	N/A	N/A
CT.038, CT.041, CT,044, CT.047, CT.050, CT.053, CT.056, CT.059, CT.062, CT.065, CT.068, CT.071	Diesel Oxidation Catalyst	Miratech	SCRC-044- 150-450	N/A	N/A	N/A

CT.039, CT.042, CT.045, CT.048, CT.051, CT.054, CT.057, CT.060, CT.063, CT.066, CT.069, CT.072	Diesel Particulate Filters	Miratech	LTR2-DPF- Filter-Block	N/A	N/A	N/A
System D: D.001- D.012	Emergency Engine	Caterpillar	C175-20	4,000 kW	N/A	20100102
CT.073, CT.076, CT.079, CT.082, CT.085, CT.088, CT.091, CT.094, CT.097, CT.100, CT.103, CT.106	Selective Catalytic Reduction	Miratech	SCRC-044- 150-450	N/A	N/A	N/A
CT.074, CT.077, CT,080, CT.083, CT.088, CT.089, CT.092, CT.095, CT.098, CT.101, CT.104, CT.107	Diesel Oxidation Catalyst	Miratech	SCRC-044- 150-450	N/A	N/A	N/A

CT.075, CT.078, CT.081, CT.084, CT.090, CT.090, CT.093, CT.096, CT.099, CT.102, CT.105, CT.108	Diesel Particulate Filters	Miratech	LTR2-DPF- Filter-Block	N/A	N/A	N/A
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B. List of Insignificant Activities

A list of all insignificant activities owned and operated by Apple is shown below in Table 12.

IA	Туре	Manufacturer	Model No.	Rating	Serial No.
IA001	Diesel Fuel Tank (RMR01)	N/A	N/A	4,000 gal	N/A
IA002	Diesel Fuel Tank (RMR02)	N/A	N/A	5,000 gal	N/A
IA003	Diesel Fuel Tank (RMR03, RMR04)	N/A	N/A	6,700 gal	N/A
IA004	Diesel Fuel Tank (DT-01)	N/A	N/A	250 gal	N/A
IA005	Gasoline Fuel Tank (GT-01)	N/A	N/A	250 gal	N/A
IA006	Diesel Fuel Tank (Well 2, Well 3)	N/A	N/A	300 gal	N/A
IA007	Diesel Fuel Tank (Well 4)	N/A	N/A	660 gal	N/A
IA008- IA009	Emergency Engine	Generac	SD250	250 kW	N/A
IA010	Emergency Engine	Caterpillar	С9	300 kW	N/A

 Table 12: List of Insignificant Activities

C. Emissions Inventory

Bits Bits <th< th=""><th>в</th><th>Diesel Emergency Generators, Group RMR02</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>	в	Diesel Emergency Generators, Group RMR02																					
Amount Cases Bare (16) See (16)	B.001	Diesel Emergency Generator (RMR02-Gen01)	Height	24	500	26.12	13,062	186.60	93,300	gal	2,750	kW	SCR (NOx)	92%	PM	0.06	g/hp-hr	0.49	0.12	0.12	0.04	Manufacturers Specification	Heat Content = 140,000 Bits/gal
Math Subject S	1	Manufacturer: Commins	Diameter (ft):								3,688	bp	CatOx (VOC)	86%	PM ₁₀	0.05	g hp-hr	0.49	0.12	0.12	0.04	Manufacturers Specification	Sulfar Content = 15ppm
Bark Dates Bark D	1	Model #: 2750DQLF	Temperature ('F)										CatOx (CO)	77%	PM	0.06	g hp-hr	0.49	0.12	0.12	0.04	Manufacturers Specification	PTE based on 500 hrs/yr
Bits Bits <th< td=""><td>1</td><td>Serial #: Uaknown</td><td>Exit Velocity (fb/s)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>DPE (PM)</td><td>75%</td><td>SO.</td><td>0.00001</td><td>Ib/hp-hr</td><td>0.04</td><td>0.01</td><td>0.04</td><td>0.01</td><td>AP-42 Chapter 3.4, Table 3.4-1</td><td>Permitted Emissions based on 52 hrs/vr</td></th<>	1	Serial #: Uaknown	Exit Velocity (fb/s)										DPE (PM)	75%	SO.	0.00001	Ib/hp-hr	0.04	0.01	0.04	0.01	AP-42 Chapter 3.4, Table 3.4-1	Permitted Emissions based on 52 hrs/vr
	1		Vol. Flow Bate (CFM)												NO	6.40	choir	\$2.03	13.01	4.07	1.24	Manufacturers Specification	1 34192 bolkW
Name Note Note <th< td=""><td>1</td><td></td><td>Vol. Flow Bate (DSCEM)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td><td>0.43</td><td>ebole</td><td>3.50</td><td>0.87</td><td>0.81</td><td>0.25</td><td>Manufacturers Specification</td><td></td></th<>	1		Vol. Flow Bate (DSCEM)												0	0.43	ebole	3.50	0.87	0.81	0.25	Manufacturers Specification	
Under Seiner Gener (Mold) Code) Deal	1														VOC	0.14	choir	1.14	0.28	9.16	0.05	Manufacturers Specification	
Bits Description Replic mode Pair depine mode Pair	1														HAPs	0.004	Ib304Btu	0.11	0.03	0.11	0.03	AP-42 Chapter 3.4. Table 3.4-3 & 3.4-4	
Made in Contract Mande info Functional Control Made info Match info	B.002	Diesel Emergency Generator (RMR02-Gen02)	Height	24	500	26.12	13,062	186.60	93,300	gal	2,750	kW	SCR (NOx)	92%	PM	0.06	ghp-hr	0.49	0.12	0.12	0.04	Manufacturers Specification	Heat Content = 140,000 Btu/gal
Madel 7:2002F Impact (T) Tennes (T) Second (T) Tennes (T) Tenn	1	Manufacturer: Cummins	Diameter (ff):								3,688	hp	CatOx (VOC)	86%	PM	0.06	g hp-la	0.49	0.12	0.12	0.04	Manufacturers Specification	Sulfar Content = 15ppm
Brief Values Full Vscopie/s Full Vsco	1	Model #: 2750DOLF	Temperature ("F)										CatOx (CO)	77%	PM-	0.06	sho-h	0.49	0.12	0.12	0.04	Manufacturers Specification	PTE based on 500 hrs/w
Number of the part (Not) Nu	1	Serial # Unknown	Exit Velocity (fb/s)										DPE (PM)	75%	50.	0.00001	lb/bo-br	0.04	0.01	0.04	0.01	AP-42 Charter 14 Table 14-1	Permitted Emissions based on 57 http://
Part Re (PC) Vial Part Re (PC) <t< td=""><td>1</td><td></td><td>Vol. Flow Rate (CEM)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>NO</td><td>6.40</td><td>abola</td><td>52.03</td><td>13.01</td><td>4.07</td><td>1.24</td><td>Manufacturers Specification</td><td>1 34102 br/FW</td></t<>	1		Vol. Flow Rate (CEM)												NO	6.40	abola	52.03	13.01	4.07	1.24	Manufacturers Specification	1 34102 br/FW
Number of the second base of	1		Vol. Flow Bate (DSCEM)												00	0.43	e body	3.50	0.87	0.81	0.25	Manufacturers Specification	
Note::::::::::::::::::::::::::::::::::::	1		(VOC	0.14	ebole	1.14	0.28	0.16	0.05	Manufacturers Specification	
Biol Non-Hampeng Concurs (Biold) Marging Concurs (Biold) Ma	1														HAPS	0.004	Ib MARIN	0.11	0.03	011	0.03	AP.42 Charter 3.4 Table 3.4-3 & 3.4-4	
Buildent: Dimenti (b) Dim Dim Dimenti (b)	B.003	Diesel Emergency Generator (RMR02-Gen03)	Height	24	500	26.12	13,062	186.60	93,300	gal	2,750	kW	SCR (NOx)	92%	PM	0.06	g hp-la	0.49	0.12	0.12	0.04	Manufacturers Specification	Heat Content = 140,000 Btu/gal
Bandle 37 30027 Tensors (F) Tensors (F) Tensors (F) F(G)	1	Manufacturer: Cummins	Diameter (ff)								3,685	hp	CarOx (VOC)	86%	PMm	0.06	ghphr	0.49	0.12	0.12	0.04	Manufacturers Specification	Sulfar Content = 15ppm
Int 2 Maxima Model Mark Mark Mark Mark Mark Mark Mark Mark	1	Model #: 2750DOLF	Temperature ('F)										CatOx (CO)	77%	PM	0.06	sho-h	0.49	0.12	0.12	0.04	Manufacturers Specification	PTE based on 500 hrs/w
Number and Construction Vide Proce Amol Construction Vide	1	Serial # Unknown	Exit Velocity (fb/s)										DPE (PM)	75%	80.	0.00001	lbbobr	0.04	0.01	0.04	0.01	AP-42 Charter 3.4 Table 3.4-1	Promitted Emissions based on \$2 bra/ar
Bit Book Bit Bit <td>1</td> <td></td> <td>Vol. Flow Rate (CEM)</td> <td></td> <td>NO</td> <td>6.40</td> <td>abola</td> <td>52.03</td> <td>13.01</td> <td>4.07</td> <td>1.74</td> <td>Manufacturers Specification</td> <td>1 34102 by/PW</td>	1		Vol. Flow Rate (CEM)												NO	6.40	abola	52.03	13.01	4.07	1.74	Manufacturers Specification	1 34102 by/PW
Note::::::::::::::::::::::::::::::::::::	1		Vol. Flow Pate (DSCEM)												0	0.43	aboly	1.50	0.57	0.81	0.15	Muntheturer Specification	1.5 Hot spike
Bard And Largency Generate (DSB2:Gen) Factor Factor<	1		FOL THOM TONE (DODGT DI)												voc	0.14	abola	1.14	0.75	0.16	0.05	Munfucturer Specification	
Bield Deel Tangenge (channel Biglistic Gand) Bield State 1 Links Is description Bield (channel Tangenge)	1														HAP	0.004	b M Bm	0.11	0.03	011	0.03	AP.42 Charter 3.4 Table 3.4.3 & 3.4.4	
Image and a base of the second base of the seco	B 004	Diesel Emergency Generator (RMR02-GenDi)	Heists	24	500	26.12	13.062	186.60	91.100	ea1	2.750	W	SCR (NOx)	92%	PM	0.05	choir	0.49	0.12	0.12	0.04	Manufacturers Specification	Heat Context = 140 000 Bra/gal
Model 2:20022 Super-Sector (7) Super-Sector (7) <td></td> <td>Manufacturer Commiss</td> <td>Diameter (f)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3.688</td> <td>ha</td> <td>CHOX (VOC)</td> <td>84%</td> <td>PM</td> <td>0.05</td> <td>ebole</td> <td>0.49</td> <td>0.12</td> <td>0.12</td> <td>0.04</td> <td>Manufacturers Specification</td> <td>Sulfar Content = 15mm</td>		Manufacturer Commiss	Diameter (f)								3.688	ha	CHOX (VOC)	84%	PM	0.05	ebole	0.49	0.12	0.12	0.04	Manufacturers Specification	Sulfar Content = 15mm
Instal Column Data Vacary My Vacary	1	Model # 175(DOLE	Temperature (TE)										CHOX (CO)	77%	D.C.	0.05	abola	0.49	0.12	0.12	0.04	Muntheturer Specification	RTE based on 500 broky
Number American Val Bine American	1	Serial # Unknown	Frit Valority (#1)										DRE (PAO	25%	50.	0.00001	livinde	0.04	0.01	0.04	0.01	AP.47 Charter 3.4 Table 3.4.1	Dermitted Emissions based on 52 broky
Bardiansy closes of bar	1	Serve P. Cakabona	Vol Flow Pate (CEM)										Der (rai)	10.14	200	6.40	ala ha	\$2.02	12.01	4.07	1.24	Manfastana Samifastin	1 24103 he/W
Name Name <th< td=""><td>1</td><td></td><td>Vol. Flow Pate (DSCEM)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>00</td><td>0.42</td><td>abole</td><td>3.50</td><td>0.97</td><td>0.81</td><td>0.15</td><td>Munfuturer Specification</td><td>1.54102 april 1</td></th<>	1		Vol. Flow Pate (DSCEM)												00	0.42	abole	3.50	0.97	0.81	0.15	Munfuturer Specification	1.54102 april 1
bask Image State	1		For Flow Idic (Discript)												voc	0.14	abola	1.14	0.25	0.16	0.05	Munfucturer Specification	
Biol Deed Targety Owners (MBR): Gends) Height 34 500 311 11.00 <th< td=""><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>HAD</td><td>0.004</td><td>b b b b b b b b b b b b b b b b b b b</td><td>0.11</td><td>0.03</td><td>0.11</td><td>0.03</td><td>AP.42 Charter 3.4 Table 3.4-3.6 3.4-4</td><td></td></th<>	1														HAD	0.004	b b b b b b b b b b b b b b b b b b b	0.11	0.03	0.11	0.03	AP.42 Charter 3.4 Table 3.4-3.6 3.4-4	
Numeric (simulation) Numeric (b) Numeric (b) </td <td>B 005</td> <td>Decel Emergency Generator (BMR02, Gen05)</td> <td>Heiste</td> <td>24</td> <td>500</td> <td>26.12</td> <td>13.062</td> <td>186.60</td> <td>93.300</td> <td>ea1</td> <td>2.750</td> <td>1W</td> <td>SCR (NOr)</td> <td>92%</td> <td>PM</td> <td>0.05</td> <td>choly</td> <td>0.49</td> <td>0.12</td> <td>0.12</td> <td>0.04</td> <td>Manufacturers Specification</td> <td>Heat Content = 140 000 Bru/sal</td>	B 005	Decel Emergency Generator (BMR02, Gen05)	Heiste	24	500	26.12	13.062	186.60	93.300	ea1	2.750	1W	SCR (NOr)	92%	PM	0.05	choly	0.49	0.12	0.12	0.04	Manufacturers Specification	Heat Content = 140 000 Bru/sal
Model 7:30027 Tangendarie (1) Tangendarie		Manufacturer: Cummins	Diameter (ff)								3.688	he	CatOx (VOC)	86%	PM	0.06	sho-ir	0.49	0.12	0.12	0.04	Manufacturers Specification	Sulfar Contrat = 15mm
Instand Volume Insta	1	Model # 2750DOLE	Temperature ("F)										CHONICON	77%	PM.	0.05	choly	0.49	0.12	0.12	0.04	Manufacturers Specification	PTE based on 500 brahr
North Control North Co	1	Serial # Unknown	Freit Malacity (#/s)										DOT (PM)	75%	50	0.00001	lbbobr	0.04	0.01	0.04	0.01	AB-42 Chapter 3.4 Table 3.4-1	Department and Employing based on 57 headsr
Numbers Numbers <t< td=""><td>1</td><td>octate of conceptual</td><td>Val Elem Pate (CEM)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2011 (104)</td><td></td><td>200</td><td>6.43</td><td>when he</td><td>62.02</td><td>12.01</td><td>4.02</td><td>1.74</td><td>Manufactures Semification</td><td>1 24103 1-4/8</td></t<>	1	octate of conceptual	Val Elem Pate (CEM)										2011 (104)		200	6.43	when he	62.02	12.01	4.02	1.74	Manufactures Semification	1 24103 1-4/8
No. 100, 100, 100, 100, 100, 100, 100, 100	1		Vol. Flow Rate (DECER)												CO CO	0.40	graphic la	3.60	0.57	0.51	0.76	Manfortune Franklander	1.54102 april 1
Bard Description Magin 24 50 21.1 1.00 1.00 1.00 1.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01	1		VOLTION FOR (DISCIDI)												Noc	0.40	g apria	1.14	0.25	0.01	0.06	Manfastana Specification	
Bind Dead Transport Comment (DBBC) Gendel) Fleed State	1														MADe	0.004	b and man	0.11	0.03	0.10	0.03	AP.d2 Charger 14, Table 14-16, 14-4	
Number Diamers (b) Diamors (b) Diamers (b) <t< td=""><td>8 005</td><td>Diesel Emergency Generator (RMR02-Gen06)</td><td>Heista</td><td>24</td><td>500</td><td>26.12</td><td>13.062</td><td>156.60</td><td>93.300</td><td>eal</td><td>2,750</td><td>kW</td><td>SCR (NOx)</td><td>92%</td><td>PM</td><td>0.05</td><td>elte-tr</td><td>0.49</td><td>0.12</td><td>0.12</td><td>0.04</td><td>Manufacturers Specification</td><td>Meat Content = 140.000 Bits/gal</td></t<>	8 005	Diesel Emergency Generator (RMR02-Gen06)	Heista	24	500	26.12	13.062	156.60	93.300	eal	2,750	kW	SCR (NOx)	92%	PM	0.05	elte-tr	0.49	0.12	0.12	0.04	Manufacturers Specification	Meat Content = 140.000 Bits/gal
Model 7:300427 Tangentar (*) Visit Visit <td>0.000</td> <td>Manfecture Commin</td> <td>Discustor (ff):</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1.691</td> <td>ho</td> <td>CHOX (100C)</td> <td>0.655</td> <td>DO.C.</td> <td>0.05</td> <td>aboly</td> <td>0.49</td> <td>0.12</td> <td>0.12</td> <td>0.04</td> <td>Muntheturer Specification</td> <td>Suffix Context = 150000</td>	0.000	Manfecture Commin	Discustor (ff):								1.691	ho	CHOX (100C)	0.655	DO.C.	0.05	aboly	0.49	0.12	0.12	0.04	Muntheturer Specification	Suffix Context = 150000
Stand & Calaman East V Schwary (M) Visite V Schwart	1	Model #: 775(DOLE	Temperature (75)										CHOY (CO)	22%	ph.	0.05	abole	0.49	0.12	0.12	0.04	Manufacturers Specification	RTF based on 500 brahr
Note: Note: <th< td=""><td>1</td><td>Savid & Lisburger</td><td>East Valueity (B/s)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>DOE (DO.)</td><td>7.00</td><td>80</td><td>0.00001</td><td>Bolen be</td><td>0.04</td><td>0.01</td><td>0.05</td><td>0.01</td><td>AB 43 Chapter 2.4 Table 2.4.1</td><td>Department Employing based on \$2 hours</td></th<>	1	Savid & Lisburger	East Valueity (B/s)										DOE (DO.)	7.00	80	0.00001	Bolen be	0.04	0.01	0.05	0.01	AB 43 Chapter 2.4 Table 2.4.1	Department Employing based on \$2 hours
Bit Program Description State State (CD20) State State (CD20) <td>1</td> <td>Series #. Conceptual</td> <td>Vol. Theo Bare (CTM)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>and (ring)</td> <td>1274</td> <td>200</td> <td>4.40</td> <td>and and and and and and and and and and</td> <td>62.02</td> <td>12.01</td> <td>4.07</td> <td>1.74</td> <td>March chapter Sec. Facebook</td> <td>1 24102 h-day</td>	1	Series #. Conceptual	Vol. Theo Bare (CTM)										and (ring)	1274	200	4.40	and	62.02	12.01	4.07	1.74	March chapter Sec. Facebook	1 24102 h-day
Bart Soundaries Part of Unitary	1		Vol. Flow Rate (CFA)												CO CO	0.40	g ip-m	32.03	15.01	4.07	0.36	Standacturers Specification	1.54102 Ip/k.w
best Interpret/Generate (3)/BB2/Gen/) Find data 51 50 51/B 50/B 50/B 50/B 61/B	1		VOL FIOW Falle (DSCFDD)												100	0.45	gapa	3.50	0.35	0.01	0.05	Mandactures Specification	
DBPT Devel Tangengo Convert (MBABBG-Gard) Tend Tangengo Convert (MBABG-Gard) Devel Tangengo Convert (MBABG-GARd)	1														WAD-	0.001	100.00	0.11	0.02	0.10	0.00	AD 43 Chanter 2.4 Table 2.4.2.6.2.4.4	
Mandemary Comman Dampers (2) Main Loss Loss <thloss< th=""> Loss <thloss< th=""> <th< td=""><td>8.007</td><td>Dised Enveronment Generator (RMR02-Gen07)</td><td>Meight</td><td>24</td><td>500</td><td>26.12</td><td>11.062</td><td>156.60</td><td>91 100</td><td>ml</td><td>2 750</td><td>100</td><td>SCR (NOV)</td><td>97%</td><td>DAG</td><td>0.05</td><td>aboly</td><td>0.49</td><td>0.03</td><td>0.12</td><td>0.04</td><td>Munifictures Specification</td><td>Mart Context = 140,000 Broad</td></th<></thloss<></thloss<>	8.007	Dised Enveronment Generator (RMR02-Gen07)	Meight	24	500	26.12	11.062	156.60	91 100	ml	2 750	100	SCR (NOV)	97%	DAG	0.05	aboly	0.49	0.03	0.12	0.04	Munifictures Specification	Mart Context = 140,000 Broad
Model # 2500QL7 Tangenair (7) The image of the image		Manufacturer Commiss	Discreter (ff)	-						200	3.688	bo	CarOx (VOC)	84%	PM.	0.05	chole	0.49	0.12	0.12	0.04	Manufacturers Specification	Sulfar Contest = 15mm
Sensel # Calamone Data Volume // Bit Data Vol	1	Model # 1750DDLE	Termerature (TT)										CHOX (CO)	77%	10.r	0.05	abobr	0.49	0.12	0.12	0.04	Manufacturer Specification	PTE based on \$00 brahr
Annue Constanting	1	Same a Company	Enis Valueire (B.)										DEF (EA)	229	100	0.000	property in	0.04	0.01	0.04	0.01	AD 43 Chapter 2.4 Table 2.4.1	Descripted Residence based on \$2 basis
No. 6-W0 ββφ4 2.03 1.01 4.07 1.14 Manufalten Specification 1.41022 μpW Vid Flow Aux (DSCR0) CD 0.44 ββφ4 2.03 0.01 0.01 0.03 Manufalten Specification Vid Flow Aux (DSCR0) CD 0.44 ββφ4 1.44 0.23 Manufalten Specification Vid Flow Aux (DSCR0) VCC 0.14 ββφ4 1.44 0.23 0.64 0.04 USO 0.04 β-β200m 0.05 0.01 0.01 0.14 0.14	1	STREAM TO MINIMUM	Lan vencey (art)										man (cont)	7376	0.02	0.00001	and appear	63.03	12.01	4.07	0.01	Arms Caspes Are, 1408 3:4-1	Pression Langestone (d) 60 02 02 07 V
via ramename (zos.eras) Violo 114 gibbje 3.50 0.07 0.01 0.25 0.05 Mandadaram Speediodama Violo 0.014 βibbje 1.04 0.23 0.16 0.05 Mandadaram Speediodama HAPe 0.064 βibb@thm 0.11 0.03 0.11 0.03 AP-41 Chapter 34, Table 3-54	1		VOL FROW FARE (CFM)												NOX	0.40	S up-ta	32.03	15.01	4.07	1.24	summers specification	1.34102 three.
VCC 0.14 gibp4 1.14 0.28 0.10 0.00 Ministrations speakadown BOAN 0.664 b.352400 0.11 0.01 0.01 0.01 0.01 A.44 1.44	1		vol row rate (DSCFM)												1000	0.43	g ap-ta	3.50	0.67	0.61	0.25	Statisticities Specification	
TAPS 0.004 ID360,000 0.11 0.05 0.11 0.05 A2-4, Capter 5-40,5-40	1														NOC NAR-	0.14	g up dr	1.14	0.28	0.10	0.05	AD 43 Chapter 3.4 Table 3.4.3.6.3.4.4	
	•														ALC: N	0.004	Ar Partolli	9.11	0.00	W.11		car to complet 27, 1998 2772 to 2744	

Figure 2: B.001 Through B.007 Emissions Calculations

Base Deal largery forms: (Bold: Gald) Hold: Base File So So File So So<																							
Madden: Control Description Self Loging Madden: Control Self Loging Self Loging <td>B.008</td> <td>Diesel Emergency Generator (RMR02-Gen08)</td> <td>Height</td> <td>24</td> <td>500</td> <td>26.12</td> <td>13,062</td> <td>186.60</td> <td>93,300</td> <td>gal</td> <td>2,750</td> <td>kW</td> <td>SCR (NOx)</td> <td>92%</td> <td>PM</td> <td>0.06</td> <td>g/hp-hr</td> <td>0.49</td> <td>0.12</td> <td>0.12</td> <td>0.04</td> <td>Manufacturers Specification</td> <td>Heat Content = 140,000 Bta/gal</td>	B.008	Diesel Emergency Generator (RMR02-Gen08)	Height	24	500	26.12	13,062	186.60	93,300	gal	2,750	kW	SCR (NOx)	92%	PM	0.06	g/hp-hr	0.49	0.12	0.12	0.04	Manufacturers Specification	Heat Content = 140,000 Bta/gal
Madd: 3:30027 Tamender(T) Tamender(T) Madd: S:30027 Column Column Column </td <td></td> <td>Manufacturer: Cummins</td> <td>Diameter (#):</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3,635</td> <td>hp</td> <td>CatOx (VOC)</td> <td>86%</td> <td>PM_{10}</td> <td>0.06</td> <td>g/hp-hr</td> <td>0.49</td> <td>0.12</td> <td>0.12</td> <td>0.04</td> <td>Manufacturers Specification</td> <td>Sulfur Content = 15ppm</td>		Manufacturer: Cummins	Diameter (#):								3,635	hp	CatOx (VOC)	86%	PM_{10}	0.06	g/hp-hr	0.49	0.12	0.12	0.04	Manufacturers Specification	Sulfur Content = 15ppm
Ind 12 Glames Fair V Short (%) Fair V Short (%) <td></td> <td>Model #: 2750DQLF</td> <td>Temperature ("F)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>CatOx (CO)</td> <td>77%</td> <td>PM_{2.8}</td> <td>0.06</td> <td>g/hp-hr</td> <td>0.49</td> <td>0.12</td> <td>0.12</td> <td>0.04</td> <td>Manufacturers Specification</td> <td>PTE based on 500 hrs/yr</td>		Model #: 2750DQLF	Temperature ("F)										CatOx (CO)	77%	PM _{2.8}	0.06	g/hp-hr	0.49	0.12	0.12	0.04	Manufacturers Specification	PTE based on 500 hrs/yr
Part De ChO2 Vit Ple DE Ch		Senial #: Uaknown	Exit Velocity (ft/s)										DPF (PM)	75%	SO2	0.00001	Ib/hp-hr	0.04	0.01	0.04	0.01	AP-42 Chapter 3.4, Table 3.4-1	Permitted Emissions based on 52 hrs/yr
Part Rep (2003) Part Rep (Vol. Flow Rate (CFM)												NOr	6.40	g/hp-hr	52.03	13.01	4.07	1.24	Manufacturers Specification	1.34102 hp/kW
Nordice: Construction Matchew (specifie) Matchew (specifie) <td></td> <td></td> <td>Vol. Flow Rate (DSCFM)</td> <td></td> <td>C0</td> <td>0.43</td> <td>g/hp-hr</td> <td>3.50</td> <td>0.87</td> <td>0.81</td> <td>0.25</td> <td>Manufacturers Specification</td> <td></td>			Vol. Flow Rate (DSCFM)												C0	0.43	g/hp-hr	3.50	0.87	0.81	0.25	Manufacturers Specification	
Board Descriptionent Distribution High 14 0 0.11 1.02 1.06 0.00 <															VOC	0.14	ghp-hr	1.14	0.28	0.16	0.05	Manufacturers Specification	
Book Book <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>HAPs</td><td>0.004</td><td>Ib/MMBra</td><td>0.11</td><td>0.03</td><td>0.11</td><td>0.03</td><td>AP-42 Chapter 3.4, Table 3.4-3 & 3.4-4</td><td></td></th<>															HAPs	0.004	Ib/MMBra	0.11	0.03	0.11	0.03	AP-42 Chapter 3.4, Table 3.4-3 & 3.4-4	
Maddet: Case: Maddet: State:	B.009	Dirsel Emergency Generator (RMR02-Gen09)	Height	24	500	26.12	13,062	186.60	93,300	gal	2,750	kW	SCR (NOx)	92%	PM	0.06	g/hp-hr	0.49	0.12	0.12	0.04	Manufacturers Specification	Heat Content = 140,000 Bta/gal
Made 2:3002F Tangender (7) Made 2:3002F		Manufacturer: Cummins	Diameter (#):								3,635	hp	CatOx (VOC)	86%	PM ₁₀	0.06	g/hp-hr	0.49	0.12	0.12	0.04	Manufacturers Specification	Sulfar Content = 15ppm
Ind 2 Datama End 2 Datama<		Model #: 2750DQLF	Temperature ('F)										CatOx (CO)	77%	PMax	0.06	ghp-hr	0.49	0.12	0.12	0.04	Manufacturers Specification	PTE based on 500 hrs/yr
No. No. <td></td> <td>Senial #: Unknown</td> <td>Exit Velocity (ft/s)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>DPF (PM)</td> <td>75%</td> <td>50-</td> <td>0.00001</td> <td>Ib/hp-hr</td> <td>0.04</td> <td>0.01</td> <td>0.04</td> <td>0.01</td> <td>AP-42 Chapter 3.4, Table 3.4-1</td> <td>Permitted Emissions based on 52 hrs/vr</td>		Senial #: Unknown	Exit Velocity (ft/s)										DPF (PM)	75%	50-	0.00001	Ib/hp-hr	0.04	0.01	0.04	0.01	AP-42 Chapter 3.4, Table 3.4-1	Permitted Emissions based on 52 hrs/vr
Part Res (PCH) View Field (PCH) <td></td> <td></td> <td>Vol. Flow Rate (CFM)</td> <td></td> <td>NO</td> <td>6.40</td> <td>elas-la</td> <td>52.03</td> <td>13.01</td> <td>4.07</td> <td>1.24</td> <td>Manufacturers Specification</td> <td>1.34102 hp/kW</td>			Vol. Flow Rate (CFM)												NO	6.40	elas-la	52.03	13.01	4.07	1.24	Manufacturers Specification	1.34102 hp/kW
Non-start Non-start <t< td=""><td></td><td></td><td>Vol. Flow Rate (DSCFM)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>00</td><td>0.41</td><td>elte-te</td><td>3.50</td><td>0.57</td><td>0.51</td><td>0.25</td><td>Manufacturers Specification</td><td></td></t<>			Vol. Flow Rate (DSCFM)												00	0.41	elte-te	3.50	0.57	0.51	0.25	Manufacturers Specification	
Barl Deel Langery Convert (MDR)CAR(1) Magine Just Mage Mage<															VOC	0.14	e he-le	1.14	0.28	0.16	0.05	Manufacturers Specification	
Bit 10 mode															HAPS	0.004	Ib MABra	0.11	0.03	9.11	0.03	AP-42 Chapter 3.4, Table 3.4-3 & 3.4-4	
Number Distance (2): Distance (2): Use (2):	8.010	Diesel Emergency Generator (RMR02-Gen10)	Meight	24	500	26.12	13,062	186.60	93,300	gal	2,750	kW	SCR (NOx)	92%	PM	0.05	g/hp-hr	0.49	0.12	0.12	0.04	Manufacturers Specification	Heat Content = 140,000 Bta/gal
Image: Programmer Programer Programe Programmer Programmer Programmer Programmer Progra		Manufacturer: Commins	Diameter (#):								3,688	he	CatOx (VOC)	86%	PMm	0.06	gho-br	0.49	0.12	9.12	0.04	Manufacturers Specification	Sulfar Content = 15ppm
Ind 1 Dairway 00 Dair Vacy 00		Model #: 2750DOLF	Temperature ("F")										CatOx (CO)	77%	PM	0.05	e he-te	0.49	0.12	0.12	0.04	Manufacturers Specification	PTE based on 500 brs/sr
No. 141 Proce face (750) 141 Proce face (750) 141 Proce face (750) 141 Proce (750) <		Serial # Unknown	Exit Velocity (84)										DPF (PM)	75%	80-	0.00001	Bubrola	0.04	0.01	0.04	0.01	AP.42 Chaster 3.4 Table 3.4.1	Permitted Emissions based on \$2 brahr
Field Res (RCH2) Vid Place (RCH2) <td< td=""><td></td><td></td><td>Vol Flow Pate (CEM)</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>NO</td><td>6.40</td><td>abola</td><td>\$2.03</td><td>13.01</td><td>4.07</td><td>1.24</td><td>Manifestration Specification</td><td>1 14102 boldW</td></td<>			Vol Flow Pate (CEM)												NO	6.40	abola	\$2.03	13.01	4.07	1.24	Manifestration Specification	1 14102 boldW
Note: State S			Vol. Flow Pate (DSCEM)												00	0.43	abola	3.50	0.57	0.51	0.25	Manifestmen Specification	1.54102 (p. 64
Hold			The first fait (Doct in)												voc	0.14	elles le	1.14	0.28	0.16	0.05	Manifectures Specification	
Bit 1 Dead Tampergo Concerns (DBRDS Gen1) Hoging 51 1 State / State															HAP	0.004	Ib30.08m	0.11	0.03	0.11	0.03	4P.42 Chaster 3.4 Table 3.4.3.8-3.4.4	
Number Distance (3): Distance (3): </td <td>8 011</td> <td>Diesel Emergency Generator (RMR02-Gen11)</td> <td>Meight</td> <td>24</td> <td>500</td> <td>26.12</td> <td>13.062</td> <td>186.60</td> <td>93 300</td> <td>cal</td> <td>2,750</td> <td>kW</td> <td>SCR (NOx)</td> <td>92%</td> <td>PM</td> <td>0.05</td> <td>ehe-iz</td> <td>0.49</td> <td>0.12</td> <td>0.12</td> <td>0.04</td> <td>Manufacturers Specification</td> <td>Heat Content = 140.000 Bita/gal</td>	8 011	Diesel Emergency Generator (RMR02-Gen11)	Meight	24	500	26.12	13.062	186.60	93 300	cal	2,750	kW	SCR (NOx)	92%	PM	0.05	ehe-iz	0.49	0.12	0.12	0.04	Manufacturers Specification	Heat Content = 140.000 Bita/gal
And # 373002/F Temperator (7) File File 600 (7) File (7		Manufacturer: Commins	Diameter (#):								3,688	he	CarOx (VOC)	86%	PM	0.06	gho-br	0.49	0.12	9.12	0.04	Manufacturers Specification	Sulfar Content = 15ppm
Ind 1 Datama End Valuey 0 Field Value Val		Model #: 2750DOLF	Temperature ("F)										CatOx (CO)	77%	PM	0.05	e he-te	0.49	0.12	0.12	0.04	Manufacturers Specification	PTE based on 500 hrs/sr
No. 64 0		Serial # Unknown	Exit Velocity (8%)										DPF (PM)	75%	50.	0.00001	Bubmahr	0.04	0.01	0.04	0.01	AP.42 Chaster 3.4 Table 3.4.1	Permitted Emissions based on \$2 bra/sr
VA Bio Rate (20073)			Vol Flow Pate (CEM)												NO	6.40	abola	\$2.03	13.01	4.07	1.24	Manifestration Specification	1 14102 boldW
Non-construction Non-construction<			Vol. Flow Pate (CCD4)												00	0.42	ghe br	2.50	0.97	0.91	0.25	Musterses Societies	1.54102 (p. 64
Start Energys Ownse (DoBC)GAL Hogin 24 50 21 10.01 10.00 10.00 10.00 10.00 0.01			The risk (Dicerti)												NOC	0.14	shole	1.14	0.28	0.16	0.05	Musterian Specification	
8121 Dead Entropyonenter (SBR): General Constructions Bundlater registrations PTI bed registrat															HAP	0.004	Ib30.08m	0.11	0.03	0.11	0.03	AP.42 Chaster 3.4 Table 3.4.3.8-3.4.4	
Numeron Numeron <t< td=""><td>B 012</td><td>Direct Emergency Generator (BMR02-Gen12)</td><td>Height</td><td>24</td><td>\$00</td><td>26.12</td><td>13.052</td><td>186.60</td><td>93 300</td><td>cul</td><td>2.750</td><td>PW</td><td>SCR (NOr)</td><td>92%</td><td>PM</td><td>0.05</td><td>choly</td><td>0.49</td><td>0.12</td><td>0.12</td><td>0.04</td><td>Manufacturers Specification</td><td>Heat Content = 140 000 Braisal</td></t<>	B 012	Direct Emergency Generator (BMR02-Gen12)	Height	24	\$00	26.12	13.052	186.60	93 300	cul	2.750	PW	SCR (NOr)	92%	PM	0.05	choly	0.49	0.12	0.12	0.04	Manufacturers Specification	Heat Content = 140 000 Braisal
Model 2720027 Tangentiant Catability 779 PdL 670 770 PdL 670 670 770 PdL 670 670 770		Munfurture Commins	Diseaster (#)								3,688	lan.	CHOY (VOC)	8624	PM	0.05	electer	0.49	0.12	0.12	0.04	Manufacturers Specification	Sulfer Centerst = 15mm
Index Volume Data Volume (%) Data Volume (Manufacture Community	Transmitter (IP)								2,000		CHOR (CO)	225	10400	0.00	grap-ta	0.49	0.12	0.12	0.04	Manda and Special Area	TITT hand on (20 hours
Minicipant Mary (M)		Parial & Distances	Note Valuation (B(c))										DIE (ID.O	7.6%	10423	0.0000	Bulley Law	0.04	0.02	0.04	0.01	AD 43 Charter 2.4 Table 2.4.1	President Resident hand on \$3 backs
Nil Rise Sin (2010) OO 6.00 9.01 9.01 0.01 <td></td> <td>Setta P. Cakaowa</td> <td>Las vencay (ars)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Dec (eau)</td> <td>1004</td> <td>200</td> <td>0.00001</td> <td>in the second</td> <td>0.04</td> <td>0.01</td> <td>4.07</td> <td>0.01</td> <td>North Completion, Table 5741</td> <td>A SHOOL STU</td>		Setta P. Cakaowa	Las vencay (ars)										Dec (eau)	1004	200	0.00001	in the second	0.04	0.01	4.07	0.01	North Completion, Table 5741	A SHOOL STU
Vice 101 pipe 114 9.31 0.41 0.91 0.11 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0			Vol. Flow Rate (CFSI)												NOX	0.40	gap-m	32.03	15.01	4,07	0.04	Manufacturers Specification	1.54102 fipikw
100 010 100 011 011 011 010 04/CQB00 34, 7406 34 44 3 44 Num FM FA 5.8 1.40 1.40 6.40			Vol. Flow Kale (DSCFM)												1000	0.45	g ip-in	3.30	0.87	0.01	0.25	Manufacturers Specification	
Note Fail Fail <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>NAD-</td><td>0.04</td><td>p p n</td><td>0.11</td><td>0.28</td><td>0.10</td><td>0.05</td><td>AT 43 Charter 3.4 Table 3.4.3.6.3.4.4</td><td></td></th<>															NAD-	0.04	p p n	0.11	0.28	0.10	0.05	AT 43 Charter 3.4 Table 3.4.3.6.3.4.4	
PALe 543 144 144 64 64 PALe 543 144 144 64 67 SO ₂ 0.54 0.51 0.51 6.71 6.71 KO ₂ 0.54 0.51 0.51 0.51 0.51 0.51 CO 41.95 0.50 0.73 2.71 0.51 0.51 0.51 0.51															ILAPS Str	tem Total	10-MADES	5.95	0.03	0.11	0.03	AP-92 Chapter 3:4, 1406 3:4-3 & 3:4-4	
PMag 3.03 1.49 1.49 0.47 PMag 3.03 1.48 1.46 0.40 S01 0.31 0.31 0.31 0.18 S02 0.51 0.31 0.51 0.18 S03 0.54 0.19 0.51 0.11 S04 0.51 0.51 0.51 1.10 S05 0.54 0.13 0.51 1.10 S04 0.51 0.51 2.50 S05 0.54 1.20 2.50 HAD 1.20 0.54 1.20																iem rotat	1.21	3.63	1.40	1.40	0.45		
Diametric Diametric Diametric Diametric Diametric Non 60.310 154.31 44.31 154.31 14.31 154.31 14.31 154.31 14.31 154.31 14.31 154.31 14.31 154.31 14.31 154.31 14.31 154.31 14.31 154.31 14.31 157.31 154.31 154.31 154.31 154.31 154.31 157.31 154.31 157.31 <td></td> <td>PM10</td> <td>0.85</td> <td>1.40</td> <td>1.40</td> <td>0.45</td> <td></td> <td></td>																	PM10	0.85	1.40	1.40	0.45		
SO ₄ 0.54 0.13 0.54 0.16 NO ₄ 0.54, 9 1.5410 0.17 1.415 CO 4155 1160 9.78 2.29 HUND 13.2 39 4.12 1.20 HUND 13.2 34 1.12 0.62																	PM2.8	5.85	1.46	1.46	0.45		
NO ₂ 04.39 15410 44.79 1445 CO 44.55 1049 9.56 2.27 VOC 13.56 3.44 155 6.9 Bub 1.27 0.44 137 6.42																	SO ₂	0.54	0.13	0.54	0.16		
C0 4155 1000 976 227 100 100 101 101 101 101 101 101 101 101	1																NOx	624.39	156.10	48.78	14.85		
VOC 13.66 3.41 1.95 0.59 HAP 1.37 0.42																	co	41.95	10.49	9.76	2.97		
HAP1 1.37 0.34 1.37 0.42	1																VOC	13.66	3.41	1.95	0.59		
	1																HAP1	1.37	0.34	1.37	0.42		

Figure 3: B.008 Through B.012 Emissions Calculations