APPENDIX A

Technical Support Document

Revisions to the Motor Vehicle Emissions Budgets for the 1997 8-Hour Ozone NAAQS

August 2020

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1.0 INTRODUCTION

The purpose of this document is to provide and document technical details of the analyses to support the revision to Motor Vehicle Emissions Budgets (MVEBs) in the *Revision to Motor Vehicle Emissions Budgets in 1997 8-hour Ozone Redesignation Request and Maintenance Plan: Clark County, Nevada* (October 2018). The document includes a detailed description of the approach used to develop onroad mobile sources emissions inventories, and provides updated emissions estimates for other source categories used in developing the revised MVEBs, i.e., (nonroad mobile, point, nonpoint, commercial aviation, federal aviation and biogenic). These updated emissions estimates replace the emissions described in the *Revision to Motor Vehicle Emissions Budgets in 1997 8-hour Ozone Redesignation Request and Maintenance Plan, Appendix A* (October 2018).

2.0 CLARK COUNTY BASE AND FUTURE YEAR EMISSIONS INVENTORIES

Clark County Department of Environment and Sustainability (DES) selected 2017 as the base year in this revision because it is the most recent year for which a comprehensive triennial inventory is required to be submitted to the U.S. Environmental Protection Agency (EPA); also, the National Emissions Inventory (NEI) for the same year was released in April 30, 2020. The future projection year is 2022, the maintenance year in the 2018 ozone maintenance plan revision. The pollutants of these inventories are the primary ozone precursors, nitrogen oxides (NO_x) and volatile organic compounds (VOCs).

DES used 2017 actual emissions activity data to develop the 2017 base year ozone inventory and projected activity data to develop the 2022 future year ozone inventory, following the EPA guidance document titled "Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations" (EPA-454/B-17002, May 2017). The primary data sources for the base year and future year inventories are local specific activity data and the 2017 NEI.

3.0 ONROAD MOBILE SOURCE EMISSIONS

DES has run MOVES2014b, the latest release of EPA's MOVES model, to develop the updated onroad mobile source emissions estimates for Clark County. The MOVES2014b was run in the inventory mode, not the emission rate mode as in the previous revision. Also in the previous revision, onroad emissions were estimated using MOVES2014a, the predecessor of MOVES2014b which was released to updated the nonroad emissions data. The two versions of MOVES produce the same onroad emissions.

3.1 MOVES inputs

The onroad mobile sources from MOVES2014b include onroad emissions from 13 source types (Table 3-1) and four roadway types (Table 3-2). DES has developed updated county-specific MOVES input data for both 2017 and 2022 with the latest information.

Table 3-1. MOVES Source Use Type

Source Type ID	MOVES Source Type Name
11	Motorcycle
21	Passenger Car
31	Passenger Truck
32	Light Commercial Truck
41	Intercity Bus
42	Transit Bus
43	School Bus
51	Refuse Truck
52	Single Unit Short-haul Truck
53	Single Unit Long-haul Truck
54	Motor Home
61	Combination Short-haul Truck
62	Combination Long-haul Truck

Table 3-2. Map of HPMS Road Types to MOVES Road Type

HPMS Road Type	MOVES Road Type
11: Rural Principal Arterial – Interstate	2: Rural Restricted Access
13: Rural Principal Arterial - Other	3: Rural Unrestricted Access
15: Rural Minor Arterial	
17: Rural Major Collector	
19: Rural Minor Collector	
21: Rural Local System	
23: Urban Principal Arterial – Interstate	4: Urban Restricted Access
25: Urban Principal Arterial – Other Freeways	
27: Urban Principal Arterial – Other	5: Urban Unrestricted Access
29: Urban Minor Arterial	
31: Urban Collector	
33: Urban Local System	

The key MOVES inputs include such vehicle fleet activity data as vehicle miles traveled (VMT), vehicle population by vehicle source type (or vehicle class), fleet age distribution, fuel parameters, and inspection and maintenance (I/M) programs.

3.1.1 Clark County Vehicle Classification Study

Since vehicle classification is a crucial component for developing an onroad emission inventory, DES completed a vehicle classification study in June 2018. The study used 2014-2016 traffic count data collected by the Nevada Department of Transportation (NDOT), and included an onroad license plate survey at selected roadway locations. The collected license plate numbers were matched to vehicle identification numbers (VINs), then decoded to obtain vehicle attributes that allowed DES's contractor to classify cars versus light-duty trucks. The primary products of

the vehicle classification study were VMT mix and temporal profiles, which were incorporated into the 2017 MOVES input database. The MOVES temporal profiles included monthly, weekly, and hourly traffic profiles.

3.1.1.1 VMT Mix Profiles

Figure 3-1 shows the VMT mix profiles from the study by MOVES road type. Rural Restricted Access (Road Type 2) has the highest amount of heavy-duty VMT (24%), which decreases from left to right in the figure: from Road Type 2 to Rural Unrestricted Access (Road Type 3) to Urban Restricted Access (Road Type 4) to Urban Unrestricted (Road Type 5).

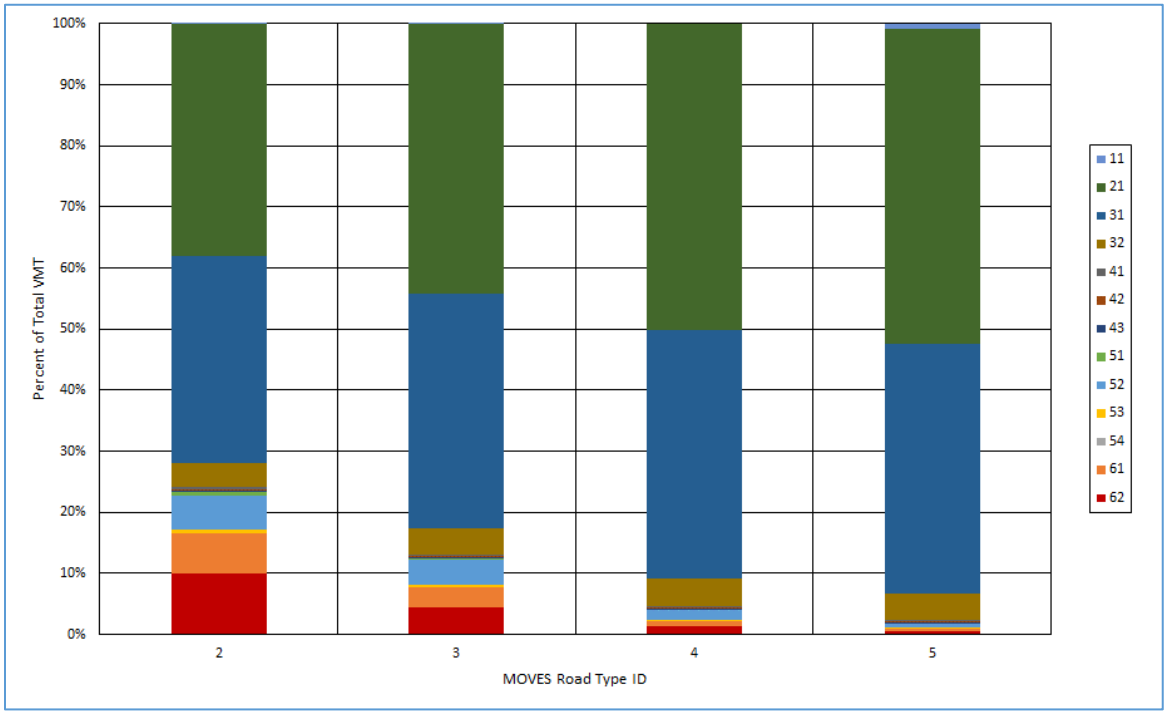

Figure 3-1. Summary of the VMT mix on each MOVES road type.

3.1.1.2 Monthly Traffic Profiles

Figure 3-2 displays the monthly VMT profiles for MOVES. The MOVES model distributes annual VMT to monthly totals using the month VMT fractions shown in Figure 3-2. Clark County's monthly variation does not indicate a strong influence of season on VMT. This monthly variations are based on the NDOT traffic counts during 2014-2016. NDOT has continuous traffic counters operating throughout the year.

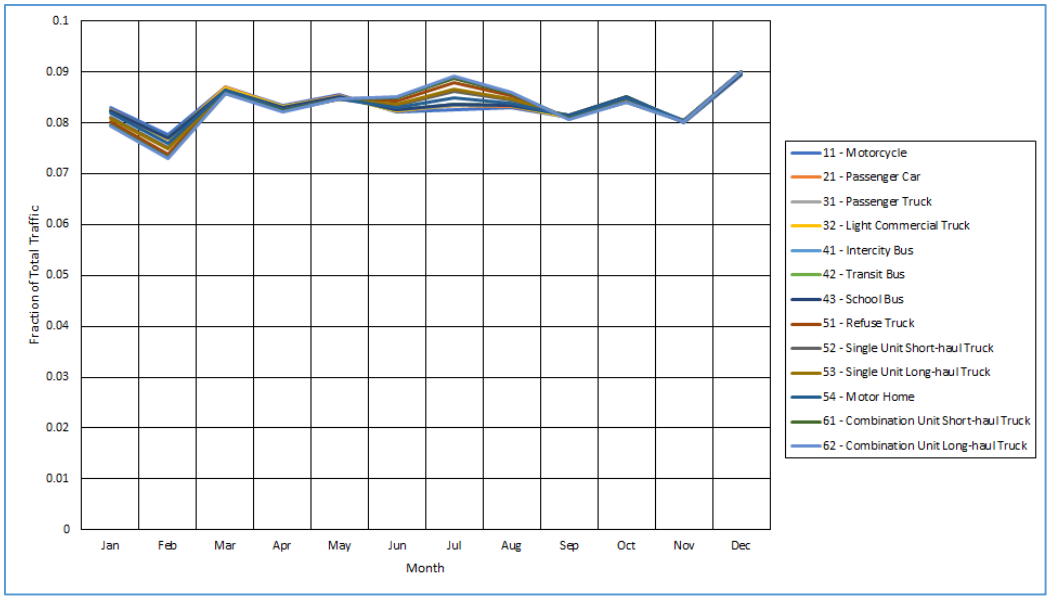

Figure 3-2. MOVES Month VMT Fractions for Clark County, NV.

3.1.1.3 Weekly Traffic Profiles

The day-of-week profiles in MOVES apportion weekly VMT to two periods of the week: "weekday," consisting of 5 days, and "weekend," consisting of 2 days. Figure 3-3 shows a sample of the profiles for passenger cars. The ratio of weekday to weekend VMT grows from left to right, moving from Rural (Road Types 2 and 3) to Urban (Road Types 4 and 5). This pattern of higher weekday VMT on urban roads and unrestricted roads was generally true for all the source types.

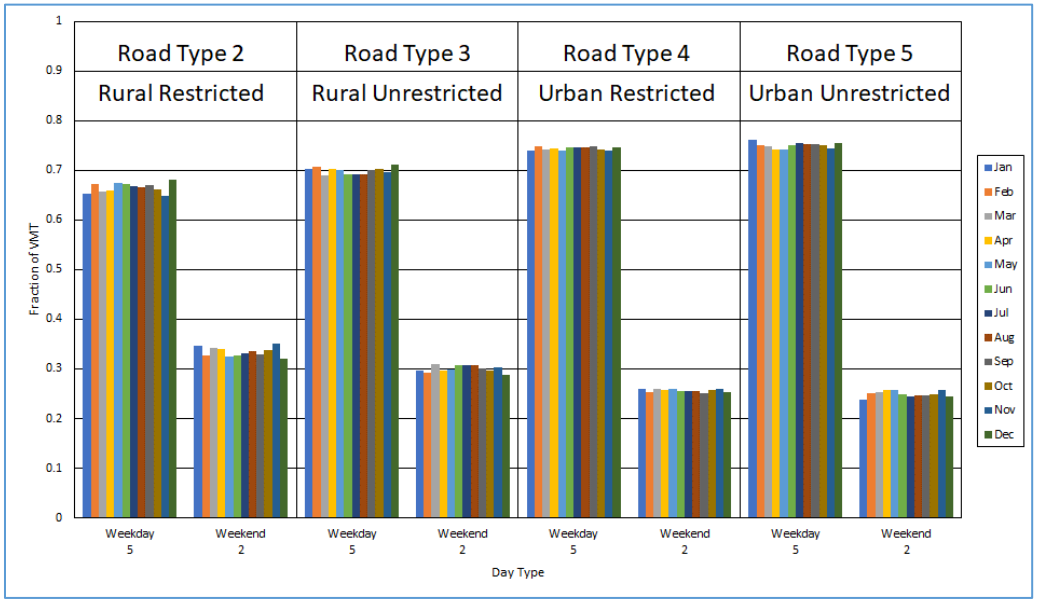

Figure 3-3. Sample MOVES Day VMT Fractions (Passenger Cars).

3.1.1.4 Hourly Traffic Profiles

Figure 3-4 shows sample MOVES hour VMT fractions for passenger cars traveling on weekdays (solid line series) and weekends (broken line series) in Clark County for each of the four MOVES road types. On weekdays, the two Urban Road Types—4 (grey) and 5 (yellow)—have prominent morning peaks in the VMT fractions. Weekend profiles on all road types reach their high point midday, i.e., between the hours of about noon to 4 p.m.

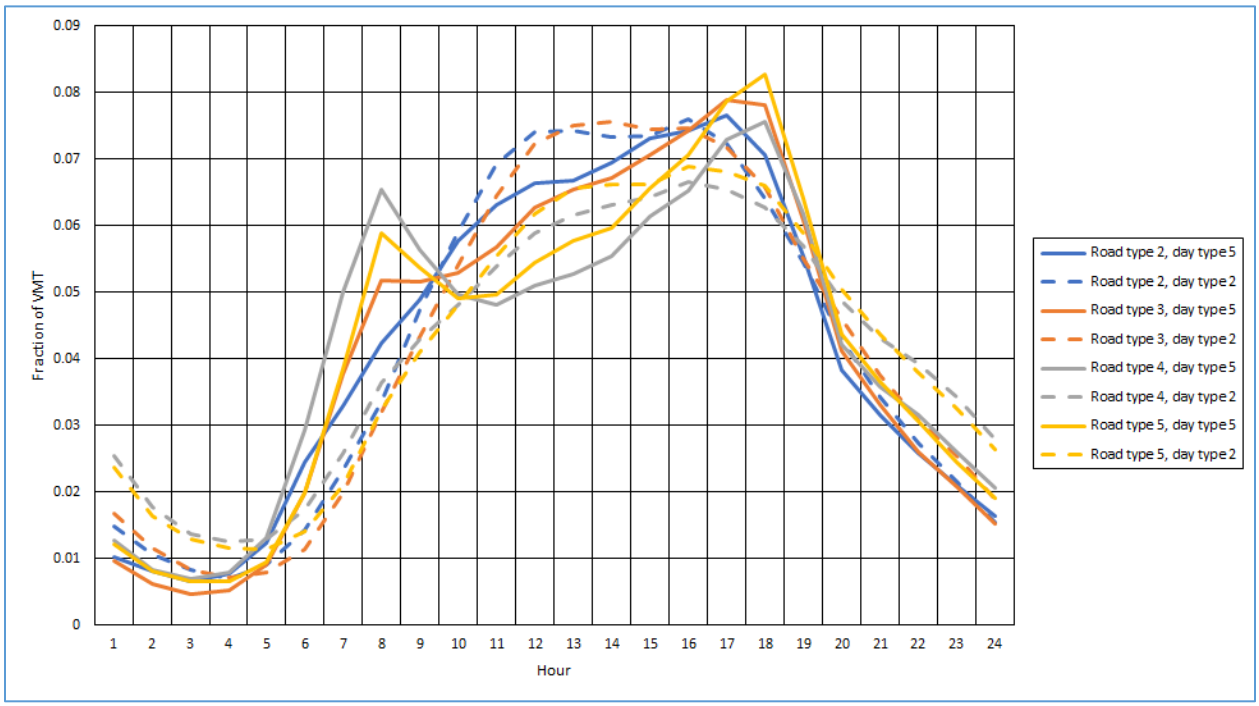

Figure 3-4. Sample MOVES Hour VMT Fractions (Passenger Cars).

3.1.2 Other MOVES Inputs

Activity data for each vehicle type, such as VMT and vehicle population, are important inputs for MOVES. VMT data for the base year (2017) inventory are derived from NDOT's 2017 annual Highway Performance Monitoring System (HPMS) reports. Table 3-3 shows Clark County 2017 Annual VMTs by function class from NDOT. The MOVES model requires annual or daily VMT by vehicle type; using the VMT mix information developed from the Clark County Vehicle Classification Study (Section 2.1.2), DES generated annual VMTs for each vehicle source type for the entire county.

For urban road types, VMTs for 2022 were projected from 2017 using growth factors from the forecasts of Regional Transportation Commission of Southern Nevada (RTC) travel demand modeling. For rural road types, a linear regression projection from historical NDOT HPMS reports was used to project VMT. Table 3-4 lists annual VMT by source type for the two modeling years.

Table 3-3. Clark County Annual VMT by Function Class

Function Class	2017 AVMT
Rural Interstate	934,039,709
Rural Other Principal Arterial	446,934,653
Rural Minor Arterial	16,245,785
Rural Major Collector	90,070,703
Rural Minor Collector	20,764,397
Rural Local	76,177,938
Urban Interstate	3,222,088,929
Urban Other Freeways and Expressways	1,509,145,790
Urban Other Principal Arterial	2,098,958,489
Urban Minor Arterial	4,028,876,472
Urban Collector	1,676,166,304
Urban Local	4,193,911,528
Annual Total	**18,313,380,697**

Table 3-4. Clark County Annual VMT by Vehicle Type

Source Type ID	Source Type Name	2017	2022
11	Motorcycle	106,386,954	120,483,465
21	Passenger Car	9,208,010,383	10,428,092,583
31	Passenger Truck	7,407,161,693	8,388,627,368
32	Light Commercial Truck	792,674,327	897,705,468
41	Intercity Bus	58,489,698	68,624,007
42	Transit Bus	28,032,592	30,353,740
43	School Bus	23,000,000	25,056,495
51	Refuse Truck	14,183,328	16,062,651
52	Single Unit Short-haul Truck	229,675,451	260,107,967
53	Single Unit Long-haul Truck	20,871,686	23,637,232
54	Motor Home	1,933,403	2,189,583
61	Combination Short-haul Truck	170,417,334	192,998,017
62	Combination Long-haul Truck	252,543,847	286,006,477
Total:		**18,313,380,695**	**20,739,945,053**

The vehicle type population data for the entire county was derived primarily from the DMV's vehicle registration database. Adjustments were made for transit buses based on data obtained from the RTC, and for school bus populations based on reports from the online magazine *SchoolBus*. Vehicle population estimates for combination short-haul and long-haul trucks were based on MOVES's default database. The vehicle populations by source type were projected from 2017 to 2022 using surrogates such as human population for the light duty vehicles, and VMTs for heavy duty trucks. Table 3-5 shows the Clark County VPOP data used in the modeling effort.

Table 3-5. Clark County Vehicle Population

Source Type ID	Source Type Name	2017	2022
11	Motorcycle	42,492	46,342
21	Passenger Car	714,907	779,678
31	Passenger Truck	557,168	607,647
32	Light Commercial Truck	59,625	65,027
41	Intercity Bus	374	407
42	Transit Bus	797	830
43	School Bus	1,957	2,134
51	Refuse Truck	632	689
52	Single Unit Short-haul Truck	16,395	17,880
53	Single Unit Long-haul Truck	1,160	1,266
54	Motor Home	910	993
61	Combination Short-haul Truck	5,660	5,893
62	Combination Long-haul Truck	6,336	7,266
Total:		**1,408,413**	**1,536,053**

MOVES also requires input from hoteling activity, which refers to the hours spent idling by drivers of diesel long-haul combination trucks during mandatory rest periods. MOVES accounts for idling and auxiliary power unit (APU) use as separate emission processes, in addition to truck operation on roadways. Since no local specific hoteling hours are available, hoteling hours are based on MOVES2014b default.

Ambient temperature and humidity data are based on the meteorological data collected at McCarran International Airport (LAS) in 2017. Table 3-6 presents the average hourly temperature and humidity data used in the MOVES database for the month of July of 2017.

Table 3-6. Average Hourly Temperature and Humidity at McCarran International Airport for July 2017.

Hour	Temperature (F)	Humidity (%)
1	90.7	25.7
2	89.4	26.8
3	88.3	28.0
4	87.0	29.7
5	86.1	31.1
6	87.5	30.0
7	90.3	27.7
8	92.3	28.5
9	94.9	25.5
10	97.3	23.9
11	99.6	22.1
12	101.7	19.5
13	103.1	18.4

Hour	Temperature (F)	Humidity (%)
14	103.7	17.9
15	104.3	16.4
16	104.1	16.5
17	104.1	16.3
18	102.8	16.6
19	100.8	18.1
20	98.8	19.9
21	96.9	21.3
22	95.2	22.1
23	93.5	23.4
24	91.9	25.6

The Nevada Department of Motor Vehicles (DMV) provided vehicle registration data for Clark County by model year and vehicle type, which DES used to generate the vehicle population and vehicle age distribution inputs. The age distributions for 2017 were based on the vehicle registration data from DMV for light-duty vehicle types; age distributions for heavy-duty vehicle types were exported from the MOVES2014b default database. However, a better source of data for age distribution may be a national project conducted by the Coordinated Research Council (CRC), which performed vehicle VIN decoding of 2017 county specific registration data from HIS Markit. The age distributions derived from the VIN-decoding project have been used by EPA in 2016 modeling platform and 2017 NEI development. EPA purchased the county specific data from IHS for the entire U.S. DES believes that the age distributions in the 2017 NEI are more robust therefore used in Clark County's onroad inventory.

EPA recently developed an age distribution projection tool for the 2016 v.1 modeling platform that includes a new method to ensure the dip in light-duty vehicle sales during the 2008–09 recession is reflected for the same model years at a future time. In other words, the tool adjusts the age distributions of light-duty source types from the base year to future years. DES used this new age-distribution projection tool to adjust the light-duty source types from the base year of 2017 to the future year of 2022. The future-year age distributions for heavy-duty source types will remain the same as those in the base year of 2017, consistent with the assumption used in the 2016 v.1 modeling platform.

CRC has also sponsored a number of projects aimed at improving the onroad portion of the NEI. Vehicle speed distribution is a crucial component for onroad emission inventories. For the Clark County 2017 MOVES database, the average vehicle speed distributions from 16 MOVES speed bins for each vehicle type are based on the CRC-sponsored project A-100, which used StreetLight Vehicle Telematics Data. The same speed distributions are used for the future year of 2022, consistent with the assumption used in the 2016 v.1 modeling platform as well as 2017 NEI.

DES also used fuel parameters from the MOVES2014b default database. Both gasoline and diesel sulfur levels are required to meet EPA requirements for low sulfur content as part of the Tier 2 standard (before 2017) or the Tier 3 standard (after 2017). Nevada caps the fuel Reid

vapor pressure in Clark County at 9.0 pounds per square inch (psi), with a 1.0-psi waiver for ethanol-blended fuels.

Information regarding vehicle I/M programs is another important input for the MOVES model. In the Las Vegas Valley, the state I/M program requires an annual two-speed idle test for 1995 and older vehicles, and on-board diagnostics checks (exhaust and evaporative) for 1996 and newer vehicles. This information has been incorporated into MOVES modeling. In addition, classic vehicles in Clark County can be exempted from I/M tests. The classic vehicle data obtained from DMV has been factored into the Clark County MOVES database.

3.2 Onroad Mobile Emissions Estimates

Table 3-7 shows Clark County July weekday emissions estimates for 2017 and 2022. DES ran MOVES2014b only for the month of July to represent typical summertime weekday onroad NOx and VOC emissions.

Despite a large increase in VMT from 2017 to 2022, emissions of both ozone precursors significantly decrease due to fleet turnover with the implementation of stringent emissions control limits such as Tier 3 standards, which were phased in starting in 2017.

Table 3-7. Clark County On-road Mobile Emissions in July (tpd)

	2017	**2022**
NO_x	46.96	29.16
VOC	29.47	20.92

4.0 NONROAD SOURCE EMISSIONS

Nonroad mobile equipment encompasses a wide variety of equipment types that either move under their own power or can be moved from site to site. DES generated nonroad mobile emissions inventories for 2017 and 2022 using the nonroad module of the latest MOVES model, MOVES2014b, released in August 2018. This module improves nonroad engine population growth rates, nonroad Tier 4 engine emissions rates, and sulfur levels of nonroad diesel fuels.

The nonroad module of MOVES includes both emissions factors and default county-level population and activity data. The model estimates emissions and can be post-processed to generate emission factors. It includes more than 80 basic and 260 specific types of nonroad equipment, although it does not include commercial marine, locomotive, and aircraft emissions.

MOVES incorporates default estimates, variables, and factors for calculations. All data are stored in MySQL database tables, and can be changed by the users if data more appropriate to the local area are available. However, due to limited time and resources, DES used MOVES2014b's default input database to estimate nonroad NO_x and VOC emissions for 2017 and 2022. The only exception is the meteorological input which is based the data collected at McCarran International Airport as shown in Table 3-6.

Table 4-1 lists emissions estimates for Clark County by sector in tons per day (tpd) from MOVES-NONROAD. Emissions from the Airport Ground Supporting sector were zeroed out, since they were included in the airport emissions inventories (Section 7.0).

Table 4-1. Clark County Summer Weekday Nonroad Emissions (tpd)

Sector Name	NOx		VOC	
	2017	2022	2017	2022
Recreational	0.126	0.123	2.483	2.153
Construction	32.355	20.291	6.013	5.105
Industrial	0.625	0.600	0.079	0.066
Lawn/Garden	3.170	2.901	16.705	16.958
Agriculture	0.041	0.029	0.004	0.003
Commercial	0.844	0.727	1.243	1.301
Logging	0	0	0	0
Airport Support	0	0	0	0
Underground Mining	0	0	0	0
Oil Field	0.008	0.004	0.001	0.001
Pleasure Craft	0.266	0.248	1.716	1.120
Railroad	0.011	0.008	0.002	0.002
TOTAL	**37.45**	**24.93**	**28.25**	**26.71**

5.0 NONPOINT SOURCE EMISSIONS

DES used the nonpoint emissions inventory from the 2017 NEI (April 2020 version) as the starting point for Clark County's nonpoint inventory. The SMOKE model was run with 4-km grid spacing for July to generate ozone season weekday emissions estimates using annual nonpoint emissions data by Source Classification Code (SCC) in the FF10 flat data files. The SMOKE summary reports were analyzed and summarized to generate NO_x and VOC emissions totals for Clark County. The nonpoint inventory also includes rail, residential wood combustion, and livestock waste.

When running SMOKE, a number of ancillary data files (such as cross-references files) are required. DES used the ancillary files from EPA's 2016 v.1 modeling platform, which is a collaborative effort between EPA, state/local emissions inventory staff, multijurisdictional organizations, and others to develop an emissions modeling platform with a base year of 2016 to use in photochemical modeling, e.g., SIP modeling for 2015 ozone NAAQS implementation.

In additional to base year 2016 emissions, the 2016 v.1 platform supplies future emissions for 2023 and 2028. DES generated a growth factor from the 2016 v.1 modeling platform to project nonpoint emissions from 2017 to 2022.

Table 5-1 shows the 2017 and 2022 summer weekday nonpoint emissions estimates for NO_x and VOC. The table shows that the nonpoint emissions decrease slightly from 2017 to 2022 for NOx, and slightly increases for VOC.

Table 5-1. Clark County Summertime Weekday Nonpoint Source Emissions (tpd)

	2017	2022
NOx	7.65	7.57
VOC	62.52	65.55

6.0 BIOGENIC EMISSIONS

Biogenic emissions from vegetation and soil can have a substantial impact on regional air quality. Biogenic sources include crops, lawn grass, and forests, which produce isoprene, mono-terpene, alpha-pinene, and other VOCs; soils produce a small amount of NO_x emissions as well. For the base year inventory, DES has run Biogenic Emissions Inventory System version 3.61 (BEIS3.61) embedded in the SMOKE 4.7 model for the month of July to generate the average ozone season day emissions for Clark County by averaging the daily emissions for the entire month.

The input data files for BEIS3.61 including gridded meteorological data are based on the 2016 v.1 modeling platform. Another major input dataset, the Biogenic Emissions Landcover Database version 4.1 (BELD4.1) was used in the modeling platform as well as the 2014NEI estimates. For 2017 NEI, however, EPA made an important update for the BEIS3.61 model which is the development of the BELD version 5 (BELD5). BELD5 includes the newer version of the Forest Inventory and Analysis, FIA version 8.0, which has a better agreement with the measured foliage biomass, which in turn can significantly improve the biogenic VOC emissions estimates. DES re-ran the BEIS3.61 model with the newly released BELD5 dataset to generate the biogenic emissions estimates for Clark County.

DES assumes that biogenic emissions are the same for all years, so biogenic emissions estimates should not impact the MVEB estimates. Table 6-1 shows biogenic emissions of VOC and NOx for Clark County using BEIS3.61 with both BELD4.1 and BELD5 dataset. As shown in the Table, the biogenic VOC emission estimate with BELD5 is much lower than that with BELD4.1.

Table 6-1. Clark County Biogenic Emissions (tpd)

Pollutant	BELD4.1	BELD5
NOx	2.43	2.43
VOC	959.29	362.61

7.0 COMMERCIAL AIRPORT EMISSIONS

This section provides updated emissions for commercial aviation in Clark County. It covers emissions from seven facilities: McCarran International Airport, North Las Vegas Airport, Henderson Executive Airport, Jean Airport, Perkins Field Airport, proposed Sloan Regional Heliport and proposed Southern Nevada Supplemental (Ivanpah) Airport.

Table 7-1 presents 2017 actual emissions for commercial aviation, provided by the Clark County Department of Aviation (CCDOA). The emission inventories were developed using the Federal Aviation Administration's Aviation Environmental Design Tool (AEDT), Version 3b.

Table 7-1. 2017 Commercial Aviation Emissions (tons per summer day)

Airport	NO_X	VOC
McCarran International Airport	10.97	1.06
North Las Vegas Airport	0.26	0.41
Henderson Executive Airport	0.22	0.23
Jean Airport	0.01	0.02
Perkins Field (Overton Airport)	<0.01	<0.01
TOTAL	**11.47**	**1.73**

CCDOA calculated the design day emissions using default meteorology in AEDT. Design day in 2017 was in October. CCDOA developed correction factors to account for the differences in meteorology between the design day and a typical summer weekday. These correction factors were applied to the emission inventories for all the airports. Emissions for Las Vegas McCarran Airport were further adjusted to account for the change in airport activity between design day and summer day.

Table 7-2 presents projected emissions for 2022. Projected emissions for 2023 estimated by CCDOA were conservatively assumed to occur in 2022. CCDOA's forecast methodology is presented in Appendix A-1. 2022 emissions were also adjusted using the correction factors developed by CCDOA for 2017. Emissions were not estimated in 2022 for the Southern Nevada Supplemental Airport because airport operations are expected to occur after 2022. Helicopter operations at the McCarran International Airport may be moved to the proposed Sloan Regional Airport at a future date.

Table 7-2. 2022 Projected Commercial Aviation Emissions (tons per summer day)

Airport	NO_X	VOC
McCarran International Airport	12.57	1.05
North Las Vegas Airport	0.25	0.41
Henderson Executive Airport	0.24	0.24
Jean Airport	0.01	0.02
Perkins Field (Overton Airport)	<0.01	<0.01
Proposed Sloan Regional Heliport	0.00	0.00
Proposed Southern Nevada Supplemental Airport	0.00	0.00
TOTAL	**13.08**	**1.73**

8.0 FEDERAL AVIATION

This section presents updated emissions for federal aviation in Clark County, which consists primarily of emissions from Nellis Air Force Base (AFB).

Table 8-1 presents the 2017 actual emissions and 2022 projected emissions. They comprise emissions from aircraft operations. 2017 aircraft operation emissions were obtained from EPA's 2017 NEI data. 2022 projected emissions including the bed down of F-35 aircraft were provided by Nellis AFB.

Table 8-1. Federal Aviation Emissions for 2017 (Actual) and 2022 (Projected)

NO_x				VOC			
2017 tpy	**2017 tpd**	**2022 tpy**	**2022 tpd**	**2017 tpy**	**2017 tpd**	**2022 tpy**	**2022 tpd**
181.35	0.50	720.26	1.97	88.12	0.24	300.31	0.82

9.0 POINT SOURCE EMISSIONS

This section updates the point source emission inventories in Appendix A of Clark County's ozone redesignation request and maintenance plan for the 1997 8-hour ozone standard. The maintenance plan contained actual emission inventories for the baseline year 2008 and projected emission inventories for 2015 and 2022. This updated section contains actual emissions for 2017, obtained from annual reports submitted by individual stationary sources. Actual emission inventories were developed from data collected by direct on-site measurements or calculated using EPA emission factors and activities data. All Title V sources and minor sources that had the potential to emit at least 10 tons of VOC or 25 tons of NOX in 2017 were incorporated into updated emission inventories. Projected emission inventories for 2022 were calculated by applying the growth factors DAQ developed for its state implementation plan (SIP) for the 1997 ozone standard to actual emission inventories for 2017.

Table 9-1 provides overall NO_x and VOC point source emissions for 2017 and 2022 (the tables in Appendix A-2 list detailed unit-level emissions for those years). Decrease in NO_x from 2017–2022 is due to the shutdown of the Reid Gardner coal-fired power plant.

Table 9-1. Clark County Point Source Emissions (tons per summer day)

	2017	**2022**
NO_x	12.40	12.09
VOC	2.95	3.12

10.0 BANKED EMISSION REDUCTION CREDITS

If requested, ERCs may be granted to a source that voluntarily reduces emissions beyond required levels of control. ERCs may be sold, leased, banked for future use, or traded, in accordance with applicable regulations. Once used to offset emissions, they are permanently retired. ERCs are intended to provide an incentive for reducing emissions and to establish a framework for promoting a market-based approach to regulating air pollution. DES has reviewed

the ERCs banked in Clark County and concluded they have not changed from those submitted in the original ozone maintenance plan (Table 10-1).

Table 10-1. Summary of ERCs Banked in Clark County (tpd)

NOx	22.23
VOC	0.43

11.0 EMISSION SUMMARY FOR ALL SOURCE CATEGORIES

Tables 11-1 and 11-2 show emissions estimates for Clark County by major source category for 2017 and 2022. The tables indicate onroad mobile was the dominant emission source for NO_x in 2017, and will continue to be the dominant source in 2022. They also show nonpoint has been, and will continue to be, the dominant anthropogenic emission source for VOCs. However, most VOC emission is from biogenic source which accounts for 75 percent of total VOC inventory. The overall emissions from all sources for both NO_x and VOCs show a decrease from 2017 to 2022. Without ERC, NO_x emission total shows a substantial decrease for the same period.

Table 11-1. Summary of Clark County Summer Weekday NO_x Emissions (tpd)

Source Category	2017 NOx	2022 NOx
Point	12.40	12.09
Nonpoint	7.65	7.57
Commercial Aviation	11.47	13.08
Federal Aviation	0.50	1.97
Onroad mobile	46.96	29.16
Nonroad mobile	37.45	24.93
Biogenic	2.43	2.43
ERC	0.00	22.23
Total	**118.85**	**113.46**
Total Difference from 2017		5.39

Table 11-2. Summary of Clark County Summer Weekday VOC Emissions (tpd)

Source Category	2017 VOC	2022 VOC
Point	2.95	3.12
Nonpoint	62.52	65.55
Commercial Aviation	1.73	1.73
Federal Aviation	0.24	0.82
Onroad mobile	29.47	20.92
Nonroad mobile	28.25	26.71
Biogenic	362.61	362.61
ERC	0.00	0.43
Total	**487.77**	**481.89**
Total Difference from 2017		5.89

APPENDIX A-1:

Clark County Department of Aviation Forecast Methodology

Clark County Department of Aviation (CCDOA) engaged Ricondo & Associates, Inc. (Ricondo) to develop analyses of historical aviation activity and forecasts of future activity for five airports owned and operated by CCDOA:

- McCarran International Airport (LAS)
- North Las Vegas Airport (VGT)
- Henderson Executive Airport (HND)
- Jean Sport Aviation Center (0L7)
- Overton Perkins Field (U08)

The forecasts have been developed to serve as input to regional air quality planning and to provide the basis for assessing requirements for existing facilities. The forecasts also serve as input into evaluating a potential new Southern Nevada Supplemental Airport (SNSA), including displacement of activity from existing facilities, and in support of the SNSA Environment Impact Statement (EIS).

The forecasts are unconstrained, meaning increases in future activity would not be hindered by availability of facilities, such as aircraft gates or airfield capacity. The forecasts were prepared during the months of April through August 2019 using calendar year (CY) 2017 as the base year, as determined by the timeline of the regional air quality planning studies. While 2017 serves as the base year, the forecasts incorporate actual 2018 activity and partial actual 2019 activity.

The unconstrained forecasts are currently under review by the Federal Aviation Administration (FAA). Once their review is completed, which is expected to occur in the fall of 2020, the forecast report can be publicly released. Additional details on the forecast methodology are provided below.

1.1 ENPLANED PASSENGER FORECAST

Forecasts of aviation activity were developed considering historical activity, including passenger trends at the Airport and across the industry, historical trends and projections of local and national socioeconomic factors, and anticipated trends in the use of the Airport by airlines.

1.1.1 ASSUMPTIONS UNDERLYING THE FORECAST

The forecasts of enplaned passengers and aircraft operations were based on many underlying assumptions, including the following:

- Activity at the Airport will not be constrained by facilities, or lack thereof.
- The Airport will continue to serve as a focus city for Southwest Airlines, Allegiant Air, Frontier Airlines, and Spirit Airlines. Other airlines will continue to primarily accommodate O&D passengers and are not expected to develop connecting hub operations. The air service profile

presented in current airline schedules is assumed to be representative of the future patterns of service at the Airport.

- Additional airline consolidation/mergers that may occur during the forecast period are not likely to affect numbers of enplaned passengers at the Airport. New airline alliances, should they develop, would be restricted to code-sharing and joint frequent flyer programs, and they would not reduce airline competition at the Airport.
- For these analyses, and like the FAA's nationwide forecasts, it was assumed that there will be no terrorist incidents during the forecast period that would have significant, negative, or prolonged effects on aviation activity at the Airport or nationwide.
- Economic disturbances will occur during the forecast period, causing year-to-year variations in airline traffic. However, traffic at the Airport and nationwide is forecast to increase over the long term.
- It was assumed that no major "acts of God" that may disrupt the national or global airspace system will occur during the forecast period that would negatively affect aviation activity.

The unconstrained forecasts for the Las Vegas metropolitan region were prepared and submitted to FAA prior to the COVID-19 pandemic. The severity and duration of the contraction in aircraft operations and air travel are unknown at this time, but will be addressed once capacity changes and the air travel demand environment stabilizes. However, over the long-term, we expect demand and airline capacity to grow in line with the U.S. Gross Domestic Product (GDP), a relationship that has been in place since before airline industry deregulation in 1978. Thus, the long-term unconstrained forecasts are still relevant for planning purposes.

Many of the factors influencing aviation activity cannot be quantified, and any forecast is subject to uncertainties. As a result, the forecasting process should not be viewed as precise. Actual airline traffic at the Airport may differ from the forecasts presented herein, because events and circumstances do not occur as expected, and those differences may be material particularly in the short-term.

1.1.2 NEAR-TERM (2018 AND 2019) ENPLANED PASSENGER FORECAST METHODOLOGY

Forecast activity for 2018 represents actual enplaned passengers as reported by the Clark County Department of Aviation. Forecast 2019 activity is based on an analysis of published airline schedules and historical activity patterns. Flight segment-level estimates of performance were developed based on trends of load factors and completion rates identified through analysis of actual aviation activity through December 2018, as well as through analysis of US Department of Transportation passenger traffic and operational data available through December 2018. Estimates of load factors and completion rates, based on historical activity and trends, were applied to scheduled capacity to derive an enplaned passenger forecast for 2019.

1.1.3 LONG-TERM (2020 TO 2037) ENPLANED PASSENGER FORECAST METHODOLOGY

The forecast of future O&D passenger activity was developed using socioeconomic regression analysis. Historical O&D passenger volumes were analyzed to identify their relationship with socioeconomic variables at the national level, as well as for the Las Vegas CSA. Socioeconomic variables such as GRP, per capita personal income, employment, and population are traditionally considered to be good indicators of passenger demand and were analyzed to identify relationships with O&D passenger activity. Regression analysis was used to identify predictive relationships between passenger demand at the Airport and these socioeconomic variables.

A standard measure of how well each variable explains passenger demand is the regression model's coefficient of determination, or R-squared value. A result of 100 percent is the maximum value possible and represents a perfect fit between the variables analyzed. For purposes of this analysis, an R-squared value of 70 percent or better was considered adequate.

The forecast of future connecting passenger activity was based on an analysis of the role of the Airport in accommodating connecting passengers across the route networks of the airlines serving the Airport. The 2018 proportion of connecting passenger to total enplaned passengers is forecast to remain constant through 2037. The consolidated O&D and connecting passengers were apportioned to the airlines based on their 2018 share of total enplaned passengers and were adjusted to include nonrevenue passengers.1

[1] Non-revenue passenger percentages were determined by comparing total enplaned passengers, as reported by CCDOA and inclusive of non-revenue passengers, to total onboard passengers as captured in the U.S. Department of Transportation T-100 database, which is based on revenue passengers only. The difference is assumed to represent non-revenue passengers.

APPENDIX A-2:

Point Source Emissions by Emissions Unit in Clark County

Point Source Emissions by Emissions Unit in Clark County

Table's A-1 and A-2 list the actual NOX and VOC emissions for 2017. Tables A-3 and A-4 provide the projected emissions for NOX and VOC for 2022.

Table A-1. 2017 Actual NO_x Emissions

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	2017 NO_x Emissions (tons/day)	2017 NO_x Summer Emissions (tons/day)
Chemical Lime (Apex)	3	1	25	0.00	0.0000	0.0000
Chemical Lime (Apex)	3	2	25	296.28	0.8117	0.8117
Chemical Lime (Apex)	3	3	25	6.24	0.0171	0.0171
Chemical Lime (Apex)	3	4	25	119.39	0.3271	0.3271
Chemical Lime (Apex)	3	5	25	681.55	1.8673	1.8673
Chemical Lime (Apex)	3	7	25	0.00	0.0000	0.0000
Chemical Lime (Apex)	3	10	25	0.60	0.0016	0.0016
Chemical Lime (Apex)	3	28	25	4.68	0.0128	0.0128
Certain Teed Gypsum	4	4-E11	25	7.45	0.0204	0.0204
Certain Teed Gypsum	4	4-F1	25	0.00	0.0000	0.0000
Certain Teed Gypsum	4	4-F2	25	0.00	0.0000	0.0000
Certain Teed Gypsum	4	4-F3	25	0.00	0.0000	0.0000
Certain Teed Gypsum	4	4-F4	25	0.00	0.0000	0.0000
Certain Teed Gypsum	4	4-G1	25	1.87	0.0051	0.0051
Certain Teed Gypsum	4	4-G1a	25	0.00	0.0000	0.0000
Certain Teed Gypsum	4	4-G1b	25	0.00	0.0000	0.0000
Certain Teed Gypsum	4	4-G1c	25	0.00	0.0000	0.0000
Certain Teed Gypsum	4	4-J3	25	11.53	0.0316	0.0316
Certain Teed Gypsum	4	4-L4	25	1.67	0.0046	0.0046
Certain Teed Gypsum	4	B8	25	0.03	0.0001	0.0001
Certain Teed Gypsum	4	J2	25	0.00	0.0000	0.0000
NV Energy (Clark Station)	7	4	27	8.70	0.0238	0.0257
NV Energy (Clark Station)	7	5	27	10.20	0.0279	0.0302
NV Energy (Clark Station)	7	6	27	10.40	0.0285	0.0308
NV Energy (Clark Station)	7	7	27	7.90	0.0216	0.0234
NV Energy (Clark Station)	7	8	27	11.20	0.0307	0.0331
NV Energy (Clark Station)	7	21	27	0.01	0.0000	0.0000
NV Energy (Clark Station)	7	22	27	0.01	0.0000	0.0000
NV Energy (Clark Station)	7	27	27	2.95	0.0081	0.0087
NV Energy (Clark Station)	7	28	27	4.68	0.0128	0.0138
NV Energy (Clark Station)	7	29	27	3.24	0.0089	0.0096

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	2017 NO_x Emissions (tons/day)	2017 NO_x Summer Emissions (tons/day)
NV Energy (Clark Station)	7	30	27	5.33	0.0146	0.0158
NV Energy (Clark Station)	7	31	27	3.39	0.0093	0.0100
NV Energy (Clark Station)	7	32	27	3.70	0.0101	0.0109
NV Energy (Clark Station)	7	33	27	3.22	0.0088	0.0095
NV Energy (Clark Station)	7	34	27	4.25	0.0116	0.0126
NV Energy (Clark Station)	7	35	27	3.13	0.0086	0.0093
NV Energy (Clark Station)	7	36	27	4.19	0.0115	0.0124
NV Energy (Clark Station)	7	37	27	3.08	0.0084	0.0091
NV Energy (Clark Station)	7	38	27	3.25	0.0089	0.0096
NV Energy (Clark Station)	7	45	27	0.01	0.0000	0.0000
NV Energy (Clark Station)	7	46	27	0.01	0.0000	0.0000
Olin Chlor Alkali Products	9	1	25	0.86	0.0024	0.0024
PABCO Gypsum	11	1	25	4.78	0.0131	0.0131
PABCO Gypsum	11	01a	25	0.00	0.0000	0.0000
PABCO Gypsum	11	5	25	0.55	0.0015	0.0015
PABCO Gypsum	11	9	25	1.04	0.0028	0.0028
PABCO Gypsum	11	10	25	1.04	0.0028	0.0028
PABCO Gypsum	11	11	25	1.04	0.0028	0.0028
PABCO Gypsum	11	12	25	0.52	0.0014	0.0014
PABCO Gypsum	11	13	25	0.52	0.0014	0.0014
PABCO Gypsum	11	14	25	0.52	0.0014	0.0014
PABCO Gypsum	11	18	25	21.44	0.0587	0.0587
PABCO Gypsum	11	18a	25	2.16	0.0059	0.0059
PABCO Gypsum	11	19	25	24.15	0.0662	0.0662
PABCO Gypsum	11	19a	25	2.44	0.0067	0.0067
PABCO Gypsum	11	20	25	16.60	0.0455	0.0455
PABCO Gypsum	11	20a	25	1.68	0.0046	0.0046
PABCO Gypsum	11	21	25	6.42	0.0176	0.0176
PABCO Gypsum	11	21a	25	0.65	0.0018	0.0018
PABCO Gypsum	11	22	25	5.80	0.0159	0.0159
PABCO Gypsum	11	22a	25	0.59	0.0016	0.0016
PABCO Gypsum	11	25	25	5.33	0.0146	0.0146
PABCO Gypsum	11	26	25	5.33	0.0146	0.0146
PABCO Gypsum	11	30	25	14.17	0.0388	0.0388
PABCO Gypsum	11	31	25	14.17	0.0388	0.0388
PABCO Gypsum	11	32	25	14.17	0.0388	0.0388

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	2017 NO_x Emissions (tons/day)	2017 NO_x Summer Emissions (tons/day)
PABCO Gypsum	11	36	25	7.81	0.0214	0.0214
PABCO Gypsum	11	45	25	7.47	0.0205	0.0205
PABCO Gypsum	11	46	25	7.47	0.0205	0.0205
PABCO Gypsum	11	48	25	1.70	0.0047	0.0047
PABCO Gypsum	11	50	25	14.17	0.0388	0.0388
PABCO Gypsum	11	51	25	14.17	0.0388	0.0388
PABCO Gypsum	11	52	25	14.17	0.0388	0.0388
Wells Cargo	12	1	25	7.12	0.0195	0.0195
Wells Cargo	12	2	25	0.62	0.0017	0.0017
Wells Cargo	12	3	25	0.00	0.0000	0.0000
Kinder Morgan	13	B10	25	0.03	0.0001	0.0001
Kinder Morgan	13	D02	25	0.07	0.0002	0.0002
Kinder Morgan	13	SR04	25	0.23	0.0006	0.0006
Titanium Metals Corp.	19	A01	25	12.41	0.0340	0.0340
Titanium Metals Corp.	19	B06	25	8.33	0.0228	0.0228
Titanium Metals Corp.	19	B09	25	1.31	0.0036	0.0036
Titanium Metals Corp.	19	B10	25	0.10	0.0003	0.0003
Titanium Metals Corp.	19	C05	25	1.07	0.0029	0.0029
Titanium Metals Corp.	19	D02E	25	0.00	0.0000	0.0000
Titanium Metals Corp.	19	D02W	25	0.00	0.0000	0.0000
Titanium Metals Corp.	19	E03	25	0.01	0.0000	0.0000
Titanium Metals Corp.	19	G02	25	0.00	0.0000	0.0000
Titanium Metals Corp.	19	G10	25	0.00	0.0000	0.0000
Titanium Metals Corp.	19	M11	25	0.00	0.0000	0.0000
Northwind Alladin	26	1	25	2.07	0.0057	0.0057
Circus Hotel and Casino	47	1	25	4.52	0.0124	0.0124
CCWRD Flamingo Center	54	1	25	7.53	0.0206	0.0206
BKEP Materials	67	1	25	0.45	0.0012	0.0012
Las Vegas Paving - Blue Diamond	70	B12	25	2.98	0.0082	0.0082
LASCO Bathware	75	1	25	1.59	0.0044	0.0044
Golden Nugget Hotel and Casino	81	1	25	0.89	0.0024	0.0024
Horseshoe Club	85	1	25	17.45	0.0478	0.0478
Tronox	95	A01	25	0.04	0.0001	0.0001
Tronox	95	A02	25	0.10	0.0003	0.0003
Tronox	95	A03	25	0.10	0.0003	0.0003
Tronox	95	A04	25	0.37	0.0010	0.0010

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	2017 NO_x Emissions (tons/day)	2017 NO_x Summer Emissions (tons/day)
Tronox	95	A05	25	5.14	0.0141	0.0141
Tronox	95	A07	25	0.70	0.0019	0.0019
Tronox	95	A10	25	6.07	0.0166	0.0166
Tronox	95	A15	25	1.20	0.0033	0.0033
Westgate Las Vegas	101	All	25	3.37	0.0092	0.0092
Las Vegas Paving - 5th Street	104	All	25	5.80	0.0159	0.0159
Las Vegas Paving - Lone Mountain	105	All	25	50.95	0.1396	0.1396
McCarran International Airport	108	All	25	8.01	0.0219	0.0219
Nellis AFB	114	All	25	19.81	0.0543	0.0543
SLS Las Vegas	133	1	25	3.42	0.0094	0.0094
J R Simplot Company	138	1	25	0.55	0.0015	0.0015
J R Simplot Company	138	2	25	127.12	0.3483	0.3483
University Medical Center	142	All	25	4.03	0.0110	0.0110
Las Vegas Paving	186	All	25	1.86	0.0051	0.0051
Caesars Consolidated	257	1	25	19.90	0.0545	0.0545
Mirage/Treasure Island	282	1	25	7.81	0.0214	0.0214
Brady Linen Services	322	1	25	26.74	0.0733	0.0733
Catalina Plastic and Coating	323	1	25	2.34	0.0064	0.0064
Las Vegas Cogeneration	329	1	51	5.33	0.0146	0.0298
Las Vegas Cogeneration	329	3	51	2.00	0.0055	0.0112
Las Vegas Cogeneration	329	4	51	2.75	0.0075	0.0154
Las Vegas Cogeneration	329	5	51	2.72	0.0075	0.0152
Las Vegas Cogeneration	329	6	51	2.86	0.0078	0.0160
Las Vegas Cogeneration	329	8	51	0.00	0.0000	0.0000
Las Vegas Cogeneration	329	9	51	0.00	0.0000	0.0000
Las Vegas Cogeneration	329	10	51	0.04	0.0001	0.0002
Las Vegas Cogeneration	329	11	51	0.08	0.0002	0.0004
Boral Roofing	346	All	25	0.29	0.0008	0.0008
Nevada Cogeneration Assoc. #1	360	1	27	35.29	0.0967	0.1044
Nevada Cogeneration Assoc. #1	360	2	27	36.91	0.1011	0.1092
Nevada Cogeneration Assoc. #1	360	3	27	34.49	0.0945	0.1021
Nevada Cogeneration Assoc. #1	360	4	27	0.19	0.0005	0.0006
Nevada Cogeneration Assoc. #1	360	6	27	0.01	0.0000	0.0000
Nevada Cogeneration Assoc. #1	360	8	27	0.20	0.0005	0.0006
Aggregate Industries	372	1	25	4.01	0.0110	0.0110
Aggregate Industries	372	2	25	0.23	0.0006	0.0006

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	2017 NO_x Emissions (tons/day)	2017 NO_x Summer Emissions (tons/day)
Aggregate Industries	372	3	25	0.23	0.0006	0.0006
Aggregate Industries	372	4	25	0.00	0.0000	0.0000
Aggregate Industries	372	5	25	0.01	0.0000	0.0000
Aggregate Industries	372	6	25	2.80	0.0077	0.0077
Aggregate Industries	372	7	25	0.00	0.0000	0.0000
Aggregate Industries	372	8	25	0.00	0.0000	0.0000
Aggregate Industries	372	9	25	0.38	0.0010	0.0010
Aggregate Industries	372	10	25	0.51	0.0014	0.0014
Aggregate Industries	372	11	25	0.00	0.0000	0.0000
Aggregate Industries	372	12	25	0.00	0.0000	0.0000
Aggregate Industries	372	13	25	0.00	0.0000	0.0000
Nevada Cogeneration Assoc. #2	391	1	27	36.89	0.1011	0.1092
Nevada Cogeneration Assoc. #2	391	2	27	34.73	0.0952	0.1028
Nevada Cogeneration Assoc. #2	391	3	27	35.24	0.0965	0.1043
Nevada Cogeneration Assoc. #2	391	4	27	0.16	0.0004	0.0005
Nevada Cogeneration Assoc. #2	391	5	27	0.10	0.0003	0.0003
Nevada Cogeneration Assoc. #2	391	7	27	0.01	0.0000	0.0000
Saguaro Power Company	393	1	27	51.92	0.1423	0.1536
Saguaro Power Company	393	2	27	49.45	0.1355	0.1463
Saguaro Power Company	393	3	27	0.06	0.0002	0.0002
Saguaro Power Company	393	4	27	0.08	0.0002	0.0002
Saguaro Power Company	393	5	27	0.36	0.0010	0.0011
Saguaro Power Company	393	6	27	0.92	0.0025	0.0027
Saguaro Power Company	393	7	27	0.00	0.0000	0.0000
Republic DUMPCO (Apex)	395	1	25	1.25	0.0034	0.0034
Republic DUMPCO (Apex)	395	6	25	0.00	0.0000	0.0000
Republic DUMPCO (Apex)	395	7	25	0.48	0.0013	0.0013
Republic DUMPCO (Apex)	395	5	25	46.83	0.1283	0.1283
City of Las Vegas WPCF	402	1	25	0.00	0.0000	0.0000
City of Las Vegas WPCF	402	2	25	1.01	0.0028	0.0028
City of Las Vegas WPCF	402	3	25	0.10	0.0003	0.0003
City of Las Vegas WPCF	402	4	25	0.00	0.0000	0.0000
City of Las Vegas WPCF	402	5	25	5.74	0.0157	0.0157
City of Las Vegas WPCF	402	6	25	13.05	0.0358	0.0358
City of Las Vegas WPCF	402	7	25	3.91	0.0107	0.0107
City of Las Vegas WPCF	402	8	25	0.00	0.0000	0.0000

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	2017 NO_x Emissions (tons/day)	2017 NO_x Summer Emissions (tons/day)
Nikkiso Cryo	404	1	25	8.90	0.0244	0.0244
Nevada Sun Peak Partnerships	423	1	37	6.73	0.0184	0.0273
Nevada Sun Peak Partnerships	423	2	37	5.10	0.0140	0.0207
Nevada Sun Peak Partnerships	423	3	37	4.06	0.0111	0.0165
Kern River (Goodsprings)	468	1	25	41.01	0.1124	0.1124
Creech AFB	473	All	25	14.70	0.0403	0.0403
Southern Desert Correctional Center	475	All	25	14.09	0.0386	0.0386
Hard Rock Hotel and Casino	510	1	25	1.48	0.0041	0.0041
Texas Station Casino	531	1	25	3.26	0.0089	0.0089
NV Energy (Harry Allen)	533	1	80	5.60	0.0153	0.0491
NV Energy (Harry Allen)	533	2	80	0.35	0.0010	0.0031
NV Energy (Harry Allen)	533	3	80	29.32	0.0803	0.2571
NV Energy (Harry Allen)	533	4	80	31.39	0.0860	0.2752
NV Energy (Harry Allen)	533	7	80	0.02	0.0001	0.0002
NV Energy (Harry Allen)	533	8	80	0.23	0.0006	0.0020
NV Energy (Harry Allen)	533	9	80	5.60	0.0153	0.0491
NV Energy (Harry Allen)	533	10	80	0.02	0.0001	0.0002
Citibank The Lakes	546	1	25	0.28	0.0008	0.0008
Rio All Suites Hotel and Casino	555	1	25	24.41	0.0669	0.0669
Kurt Segler Water Reclamation	558	1	25	7.70	0.0211	0.0211
Stratosphere Hotel and Casino	564	1	25	6.84	0.0187	0.0187
Letica Corporation	569	1	25	0.04	0.0001	0.0001
Aggregate Industries - Gowan	587	All	25	6.26	0.0172	0.0172
Las Vegas Review Journal	588	All	25	1.35	0.0037	0.0037
Georgia Pacific	593	C01	25	2.61	0.0072	0.0072
Georgia Pacific	593	C02	25	2.68	0.0074	0.0074
Georgia Pacific	593	C03	25	2.65	0.0073	0.0073
Georgia Pacific	593	C04	25	2.31	0.0063	0.0063
Georgia Pacific	593	C05	25	1.70	0.0047	0.0047
Georgia Pacific	593	E03	25	24.14	0.0661	0.0661
Georgia Pacific	593	E105	25	4.39	0.0120	0.0120
Georgia Pacific	593	E106	25	0.00	0.0000	0.0000
Georgia Pacific	593	E110	25	0.00	0.0000	0.0000
Georgia Pacific	593	E111	25	0.00	0.0000	0.0000
Georgia Pacific	593	E145	25	0.00	0.0000	0.0000
Georgia Pacific	593	E146	25	0.00	0.0000	0.0000

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	2017 NO_x Emissions (tons/day)	2017 NO_x Summer Emissions (tons/day)
Georgia Pacific	593	E147	25	0.00	0.0000	0.0000
Georgia Pacific	593	E148	25	0.00	0.0000	0.0000
Georgia Pacific	593	E153	25	0.00	0.0000	0.0000
Georgia Pacific	593	E154	25	0.00	0.0000	0.0000
Georgia Pacific	593	G33	25	0.00	0.0000	0.0000
Georgia Pacific	593	G34	25	0.04	0.0001	0.0001
Georgia Pacific	593	Z01	25	0.00	0.0000	0.0000
Berry Plastics Corporation	597	All	25	0.09	0.0002	0.0002
Palace Station Hotel and Casino	605	1	25	9.38	0.0257	0.0257
Gold Coast Hotel and Casino	606	1	25	2.33	0.0064	0.0064
Sams Town Hotel and Casino	616	1	25	4.98	0.0136	0.0136
Primm Valley Resorts	617	1	25	14.74	0.0404	0.0404
Santa Fe Station	621	1	25	4.67	0.0128	0.0128
Harrah's Laughlin	627	1	25	2.62	0.0072	0.0072
Edgewater Hotel and Casino	630	1	25	9.56	0.0262	0.0262
Riverside Resort	632	1	25	1.57	0.0043	0.0043
Tropicana Laughlin	633	1	25	2.28	0.0062	0.0062
University of Nevada, Las Vegas	634	All	25	7.57	0.0207	0.0207
Orleans Hotel and Casino	641	1	25	8.03	0.0220	0.0220
El Dorado Energy	652	A01	27	25.88	0.0709	0.0766
El Dorado Energy	652	A02	27	30.94	0.0848	0.0915
El Dorado Energy	652	A03	27	0.07	0.0002	0.0002
Venetian Hotel and Casino	697	1	25	17.84	0.0489	0.0489
Verizon Business	726	All	25	0.96	0.0026	0.0026
Nevada Color Litho	754	All	25	0.00	0.0000	0.0000
JW Marriott Las Vegas	755	1	25	2.53	0.0069	0.0069
Suncoast Hotel and Casino	775	1	25	2.64	0.0072	0.0072
Viawest	777	All	25	1.11	0.0030	0.0030
Cancun Resort	788	1	25	3.32	0.0091	0.0091
Clearwater Paper	807	All	25	37.65	0.1032	0.1032
MGM Grand/New York New York	825	1	25	65.07	0.1783	0.1783
Univeral Urethane	859	All	25	0.00	0.0000	0.0000
H Lima Nevada	868	All	25	10.57	0.0290	0.0290
Sunset Station	869	1	25	2.51	0.0069	0.0069
Yesco	974	All	25	0.00	0.0000	0.0000
West Rock	1055	All	25	0.00	0.0000	0.0000

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	2017 NO_x Emissions (tons/day)	2017 NO_x Summer Emissions (tons/day)
Republic Services Transfer Station	1087	All	25	0.29	0.0008	0.0008
Las Vegas Color Graphics	1149	All	25	0.00	0.0000	0.0000
St Rose Dominican Siena	1500	All	25	7.24	0.0198	0.0198
Green Valley Ranch Resort	1501	1	25	1.87	0.0051	0.0051
NV Energy (Chuck Lenzie)	1513	1	25	58.41	0.1600	0.1600
NV Energy (Chuck Lenzie)	1513	3	25	58.33	0.1598	0.1598
NV Energy (Chuck Lenzie)	1513	5	25	55.06	0.1508	0.1508
NV Energy (Chuck Lenzie)	1513	7	25	58.80	0.1611	0.1611
NV Energy (Chuck Lenzie)	1513	9	25	0.24	0.0007	0.0007
NV Energy (Chuck Lenzie)	1513	10	25	0.24	0.0007	0.0007
NV Energy (Chuck Lenzie)	1513	12	25	0.20	0.0005	0.0005
NV Energy (Chuck Lenzie)	1513	13	25	0.15	0.0004	0.0004
NV Energy (Chuck Lenzie)	1513	14	25	0.07	0.0002	0.0002
NV Energy (Chuck Lenzie)	1513	15	25	0.00	0.0000	0.0000
NV Energy (Chuck Lenzie)	1513	16	25	0.00	0.0000	0.0000
High Desert State Prison	1516	All	25	19.59	0.0537	0.0537
Las Vegas Power Company, LLC	1520	A01,2	45	56.20	0.1540	0.2772
Las Vegas Power Company, LLC	1520	A03,4	45	58.30	0.1597	0.2875
Las Vegas Power Company, LLC	1520	A05	45	2.40	0.0066	0.0118
Las Vegas Power Company, LLC	1520	A06	45	0.10	0.0003	0.0005
Las Vegas Power Company, LLC	1520	A07	45	0.11	0.0003	0.0005
Palms Casino Resort	1522	1	25	3.32	0.0091	0.0091
Boulder Station Hotel and Casino	1524	1	25	2.74	0.0075	0.0075
NV Energy (Walter Higgins)	1550	A01,2	31	39.90	0.1093	0.1356
NV Energy (Walter Higgins)	1550	A03,4	31	38.10	0.1044	0.1294
NV Energy (Walter Higgins)	1550	A05	31	0.30	0.0008	0.0010
NV Energy (Walter Higgins)	1550	A06	31	0.04	0.0001	0.0001
Mountain View Hospital	1569	All	25	2.09	0.0057	0.0057
NV Energy (Silverhawk)	1584	A01	30	39.30	0.1077	0.1292
NV Energy (Silverhawk)	1584	A03	30	40.20	0.1101	0.1322
NV Energy (Silverhawk)	1584	A05	30	1.16	0.0032	0.0038
NV Energy (Silverhawk)	1584	A06	30	0.02	0.0001	0.0001
Lasfuel McCarran Tank Farm	1589	All	25	0.85	0.0023	0.0023
Kern River (Dry Lake-Apex)	1590	1	25	21.99	0.0602	0.0602
Wynn Las Vegas	1624	All	25	9.86	0.0270	0.0270
North Las Vegas Airport	9596	All	25	0.06	0.0002	0.0002

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	2017 NO_x Emissions (tons/day)	2017 NO_x Summer Emissions (tons/day)
Henderson Executive Airport	9603	All	25	0.10	0.0003	0.0003
Brady Linen Services	10201	All	25	23.96	0.0656	0.0656
Republic Services (Sunrise)	15033	1	25	4.68	0.0128	0.0128
CPP Acquisition	15193	All	25	12.87	0.0353	0.0353
TPC Aggregates	15245	All	25	0.00	0.0000	0.0000
Service Rock Products	15387	All	25	91.77	0.2514	0.2514
McCarran Rent a Car Center	15409	All	25	0.13	0.0004	0.0004
Metl Span	15422	All	25	0.00	0.0000	0.0000
Artesian Spas	15426	All	25	0.10	0.0003	0.0003
Red Rock Casino Resort	15487	1	25	5.63	0.0154	0.0154
South Point Hotel and Casino	15515	1	25	3.84	0.0105	0.0105
World Market Center	15541	All	25	2.66	0.0073	0.0073
CDW Logistics	15634	All	25	0.52	0.0014	0.0014
Manheim Nevada	15839	All	25	5.01	0.0137	0.0137
City of Henderson Downtown	15847	All	25	1.99	0.0055	0.0055
Centennial Hills Hospital	15873	All	25	2.80	0.0077	0.0077
Plasticard Locktech	15876	All	25	0.91	0.0025	0.0025
Veterans Administration	15970	All	25	4.88	0.0134	0.0134
2755 Las Vegas	15999	All	25	0.71	0.0019	0.0019
Cosmopolitan Las Vegas	16101	1	25	2.64	0.0072	0.0072
Biodiesel of Las Vegas	16118	All	25	0.02	0.0001	0.0001
UNEV Pipeline	16157	All	25	0.01	0.0000	0.0000
Ritchie Brothers	16172	All	25	0.03	0.0001	0.0001
VT Construction	16241	All	25	4.17	0.0114	0.0114
Switch	16258	All	25	1.83	0.0050	0.0050
Beltway Complex	16290	All	25	1.05	0.0029	0.0029
Erickson International	16295	All	25	0.10	0.0003	0.0003
GE Transport	16300	All	25	0.00	0.0000	0.0000
Switch Communications	16304	All	25	33.23	0.0910	0.0910
Pro Terminal Operators	16376	All	25	0.07	0.0002	0.0002
Treasure Island	16452	1	25	4.66	0.0128	0.0128
CC Landfill Energy LLC	16539	All	25	31.40	0.0860	0.0860
Clark County Downtown Campus	16665	All	25	6.65	0.0182	0.0182
CTC Crushing	16673	All	25	11.35	0.0311	0.0311
Freeman	16684	All	25	0.11	0.0003	0.0003
Terra Firma Organics	16706	All	25	3.34	0.0092	0.0092

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	2017 NO_x Emissions (tons/day)	2017 NO_x Summer Emissions (tons/day)
Resorts World	16925	1	25	0.00	0.0000	0.0000
Geneva Polymer Products	16948	All	25	0.66	0.0018	0.0018
Preferred Laminations	17220	All	25	0.00	0.0000	0.0000
Viawest Lone Mtn Data Center	17272	All	25	0.40	0.0011	0.0011
Blue Diamond Hill Gypsum	17286	All	25	74.18	0.2032	0.2032
Shelby American	17347	All	25	0.18	0.0005	0.0005
NBC Fourth Realty	17439	All	25	5.92	0.0162	0.0162
Fisher Sand and Gravel	17716	All	25	18.90	0.0518	0.0518
Wells Cargo Lone Mountain	17749	All	25	39.53	0.1083	0.1083
Fisher Sand and Gravel	17771	All	25	3.60	0.0099	0.0099
Las Vegas Paving	17802	All	25	13.53	0.0371	0.0371
Las Vegas Paving	17855	All	25	2.47	0.0068	0.0068
Wier Dewatering	17913	All	25	0.55	0.0015	0.0015
Progress Rail	17918	All	25	0.00	0.0000	0.0000
NV Energy (Reid-Gardner)	AP400	4	27	401.20	1.0992	1.1871
TOTAL				**4144.95**	**11.36**	**12.40**

Table A-2. 2017 Actual VOC Emissions

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	2017 VOC Emissions (tons/day)	2017 VOC Summer Emissions (tons/day)
Chemical Lime (Apex)	3	1	25	0.000	0.0000	0.0000
Chemical Lime (Apex)	3	2	25	0.560	0.0015	0.0015
Chemical Lime (Apex)	3	3	25	0.010	0.0000	0.0000
Chemical Lime (Apex)	3	4	25	0.210	0.0006	0.0006
Chemical Lime (Apex)	3	5	25	2.280	0.0062	0.0062
Chemical Lime (Apex)	3	7	25	0.000	0.0000	0.0000
Chemical Lime (Apex)	3	10	25	0.030	0.0001	0.0001
Chemical Lime (Apex)	3	28	25	3.520	0.0096	0.0096
Certain Teed Gypsum	4	4-E11	25	0.290	0.0008	0.0008
Certain Teed Gypsum	4	4-F1	25	0.310	0.0008	0.0008
Certain Teed Gypsum	4	4-F2	25	0.000	0.0000	0.0000
Certain Teed Gypsum	4	4-F3	25	0.000	0.0000	0.0000
Certain Teed Gypsum	4	4-F4	25	0.000	0.0000	0.0000
Certain Teed Gypsum	4	4-G1	25	0.100	0.0003	0.0003
Certain Teed Gypsum	4	4-G1a	25	0.000	0.0000	0.0000
Certain Teed Gypsum	4	4-G1b	25	0.000	0.0000	0.0000
Certain Teed Gypsum	4	4-G1c	25	0.000	0.0000	0.0000
Certain Teed Gypsum	4	4-J3	25	0.700	0.0019	0.0019
Certain Teed Gypsum	4	4-L4	25	0.190	0.0005	0.0005
Certain Teed Gypsum	4	B8	25	0.010	0.0000	0.0000
Certain Teed Gypsum	4	J2	25	0.000	0.0000	0.0000
NV Energy (Clark Station)	7	4	27	0.520	0.0014	0.0015
NV Energy (Clark Station)	7	5	27	2.290	0.0063	0.0068
NV Energy (Clark Station)	7	6	27	2.530	0.0069	0.0075
NV Energy (Clark Station)	7	7	27	1.830	0.0050	0.0054
NV Energy (Clark Station)	7	8	27	2.440	0.0067	0.0072
NV Energy (Clark Station)	7	21	27	0.010	0.0000	0.0000
NV Energy (Clark Station)	7	22	27	0.000	0.0000	0.0000
NV Energy (Clark Station)	7	27	27	0.260	0.0007	0.0008
NV Energy (Clark Station)	7	28	27	0.440	0.0012	0.0013
NV Energy (Clark Station)	7	29	27	0.340	0.0009	0.0010
NV Energy (Clark Station)	7	30	27	0.540	0.0015	0.0016
NV Energy (Clark Station)	7	31	27	0.390	0.0011	0.0012
NV Energy (Clark Station)	7	32	27	0.440	0.0012	0.0013

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	2017 VOC Emissions (tons/day)	2017 VOC Summer Emissions (tons/day)
NV Energy (Clark Station)	7	33	27	0.330	0.0009	0.0010
NV Energy (Clark Station)	7	34	27	0.470	0.0013	0.0014
NV Energy (Clark Station)	7	35	27	0.300	0.0008	0.0009
NV Energy (Clark Station)	7	36	27	0.360	0.0010	0.0011
NV Energy (Clark Station)	7	37	27	0.320	0.0009	0.0009
NV Energy (Clark Station)	7	38	27	0.300	0.0008	0.0009
NV Energy (Clark Station)	7	45	27	0.010	0.0000	0.0000
NV Energy (Clark Station)	7	46	27	0.000	0.0000	0.0000
Olin Chlor Alkali Products	9	1	25	0.290	0.0008	0.0008
PABCO Gypsum	11	1	25	21.560	0.0591	0.0591
PABCO Gypsum	11	01a	25	0.000	0.0000	0.0000
PABCO Gypsum	11	5	25	0.000	0.0000	0.0000
PABCO Gypsum	11	9	25	0.080	0.0002	0.0002
PABCO Gypsum	11	10	25	0.080	0.0002	0.0002
PABCO Gypsum	11	11	25	0.080	0.0002	0.0002
PABCO Gypsum	11	12	25	0.040	0.0001	0.0001
PABCO Gypsum	11	13	25	0.040	0.0001	0.0001
PABCO Gypsum	11	14	25	0.040	0.0001	0.0001
PABCO Gypsum	11	18	25	2.090	0.0057	0.0057
PABCO Gypsum	11	18a	25	0.040	0.0001	0.0001
PABCO Gypsum	11	19	25	2.360	0.0065	0.0065
PABCO Gypsum	11	19a	25	0.050	0.0001	0.0001
PABCO Gypsum	11	20	25	1.620	0.0044	0.0044
PABCO Gypsum	11	20a	25	0.030	0.0001	0.0001
PABCO Gypsum	11	21	25	0.630	0.0017	0.0017
PABCO Gypsum	11	21a	25	0.010	0.0000	0.0000
PABCO Gypsum	11	22	25	0.570	0.0016	0.0016
PABCO Gypsum	11	22a	25	0.010	0.0000	0.0000
PABCO Gypsum	11	25	25	0.280	0.0008	0.0008
PABCO Gypsum	11	26	25	0.280	0.0008	0.0008
PABCO Gypsum	11	30	25	0.280	0.0008	0.0008
PABCO Gypsum	11	31	25	0.280	0.0008	0.0008
PABCO Gypsum	11	32	25	0.280	0.0008	0.0008
PABCO Gypsum	11	36	25	0.540	0.0015	0.0015
PABCO Gypsum	11	45	25	0.290	0.0008	0.0008
PABCO Gypsum	11	46	25	0.290	0.0008	0.0008

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	2017 VOC Emissions (tons/day)	2017 VOC Summer Emissions (tons/day)
PABCO Gypsum	11	48	25	10.960	0.0300	0.0300
PABCO Gypsum	11	50	25	0.560	0.0015	0.0015
PABCO Gypsum	11	51	25	0.560	0.0015	0.0015
PABCO Gypsum	11	52	25	0.560	0.0015	0.0015
Wells Cargo	12	1	25	8.760	0.0240	0.0240
Wells Cargo	12	2	25	0.030	0.0001	0.0001
Wells Cargo	12	3	25	5.360	0.0147	0.0147
Kinder Morgan	13	B10	25	0.028	0.0001	0.0001
Kinder Morgan	13	D02	25	0.005	0.0000	0.0000
Kinder Morgan	13	SR04	25	59.300	0.1625	0.1625
Titanium Metals Corp.	19	A01	25	2.141	0.0059	0.0059
Titanium Metals Corp.	19	B06	25	0.170	0.0005	0.0005
Titanium Metals Corp.	19	B09	25	0.000	0.0000	0.0000
Titanium Metals Corp.	19	B10	25	0.000	0.0000	0.0000
Titanium Metals Corp.	19	C05	25	0.059	0.0002	0.0002
Titanium Metals Corp.	19	D02E	25	0.000	0.0000	0.0000
Titanium Metals Corp.	19	D02W	25	0.000	0.0000	0.0000
Titanium Metals Corp.	19	E03	25	0.000	0.0000	0.0000
Titanium Metals Corp.	19	G02	25	0.000	0.0000	0.0000
Titanium Metals Corp.	19	G10	25	0.000	0.0000	0.0000
Titanium Metals Corp.	19	M11	25	0.000	0.0000	0.0000
Northwind Alladin	26	1	25	0.210	0.0006	0.0006
Circus Hotel and Casino	47	1	25	0.610	0.0017	0.0017
CCWRD Flamingo Center	54	1	25	3.390	0.0093	0.0093
BKEP Materials	67	1	25	0.720	0.0020	0.0020
Las Vegas Paving - Blue Diamond	70	B12	25	4.970	0.0136	0.0136
LASCO Bathware	75	1	25	7.220	0.0198	0.0198
Golden Nugget Hotel and Casino	81	1	25	0.150	0.0004	0.0004
Horseshoe Club	85	1	25	0.960	0.0026	0.0026
Tronox	95	A01	25	0.001	0.0000	0.0000
Tronox	95	A02	25	0.010	0.0000	0.0000
Tronox	95	A03	25	0.010	0.0000	0.0000
Tronox	95	A04	25	0.030	0.0001	0.0001
Tronox	95	A05	25	0.930	0.0025	0.0025
Tronox	95	A07	25	0.040	0.0001	0.0001
Tronox	95	A10	25	0.330	0.0009	0.0009

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	2017 VOC Emissions (tons/day)	2017 VOC Summer Emissions (tons/day)
Tronox	95	A15	25	0.070	0.0002	0.0002
Westgate Las Vegas	101	All	25	0.590	0.0016	0.0016
Las Vegas Paving - 5th Street	104	All	25	8.700	0.0238	0.0238
Las Vegas Paving - Lone Mtn	105	All	25	5.110	0.0140	0.0140
McCarran International Airport	108	All	25	1.310	0.0036	0.0036
Nellis AFB	114	All	25	14.280	0.0391	0.0391
SLS Las Vegas	133	1	25	0.300	0.0008	0.0008
J R Simplot Company	138	1	25	0.050	0.0001	0.0001
J R Simplot Company	138	2	25	0.380	0.0010	0.0010
University Medical Center	142	All	25	0.490	0.0013	0.0013
Las Vegas Paving	186	All	25	2.370	0.0065	0.0065
Caesars Consolidated	257	1	25	2.000	0.0055	0.0055
Mirage/Treasure Island	282	1	25	1.010	0.0028	0.0028
Brady Linen Services	322	1	25	1.480	0.0041	0.0041
Catalina Plastic and Coating	323	1	25	11.130	0.0305	0.0305
Las Vegas Cogeneration	329	1	51	0.680	0.0019	0.0038
Las Vegas Cogeneration	329	3	51	0.980	0.0027	0.0055
Las Vegas Cogeneration	329	4	51	1.410	0.0039	0.0079
Las Vegas Cogeneration	329	5	51	1.340	0.0037	0.0075
Las Vegas Cogeneration	329	6	51	1.350	0.0037	0.0075
Las Vegas Cogeneration	329	8	51	0.000	0.0000	0.0000
Las Vegas Cogeneration	329	9	51	0.000	0.0000	0.0000
Las Vegas Cogeneration	329	10	51	0.010	0.0000	0.0001
Las Vegas Cogeneration	329	11	51	0.020	0.0001	0.0001
Boral Roofing	346	All	25	2.870	0.0079	0.0079
Nevada Cogeneration Assoc. #1	360	1	27	8.140	0.0223	0.0241
Nevada Cogeneration Assoc. #1	360	2	27	8.150	0.0223	0.0241
Nevada Cogeneration Assoc. #1	360	3	27	8.090	0.0222	0.0239
Nevada Cogeneration Assoc. #1	360	4	27	0.010	0.0000	0.0000
Nevada Cogeneration Assoc. #1	360	6	27	0.010	0.0000	0.0000
Nevada Cogeneration Assoc. #1	360	8	27	0.010	0.0000	0.0000
Aggregate Industries	372	1	25	3.290	0.0090	0.0090
Aggregate Industries	372	2	25	0.015	0.0000	0.0000
Aggregate Industries	372	3	25	0.015	0.0000	0.0000
Aggregate Industries	372	4	25	0.000	0.0000	0.0000
Aggregate Industries	372	5	25	0.010	0.0000	0.0000

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	2017 VOC Emissions (tons/day)	2017 VOC Summer Emissions (tons/day)
Aggregate Industries	372	6	25	0.000	0.0000	0.0000
Aggregate Industries	372	7	25	0.000	0.0000	0.0000
Aggregate Industries	372	8	25	0.000	0.0000	0.0000
Aggregate Industries	372	9	25	0.000	0.0000	0.0000
Aggregate Industries	372	10	25	0.120	0.0003	0.0003
Aggregate Industries	372	11	25	0.000	0.0000	0.0000
Aggregate Industries	372	12	25	0.000	0.0000	0.0000
Aggregate Industries	372	13	25	0.030	0.0001	0.0001
Nevada Cogeneration Assoc. #2	391	1	27	8.550	0.0234	0.0253
Nevada Cogeneration Assoc. #2	391	2	27	8.490	0.0233	0.0251
Nevada Cogeneration Assoc. #2	391	3	27	8.520	0.0233	0.0252
Nevada Cogeneration Assoc. #2	391	4	27	0.010	0.0000	0.0000
Nevada Cogeneration Assoc. #2	391	5	27	0.010	0.0000	0.0000
Nevada Cogeneration Assoc. #2	391	7	27	0.010	0.0000	0.0000
Saguaro Power Company	393	1	27	3.875	0.0106	0.0115
Saguaro Power Company	393	2	27	3.881	0.0106	0.0115
Saguaro Power Company	393	3	27	0.005	0.0000	0.0000
Saguaro Power Company	393	4	27	0.006	0.0000	0.0000
Saguaro Power Company	393	5	27	0.276	0.0008	0.0008
Saguaro Power Company	393	6	27	0.137	0.0004	0.0004
Saguaro Power Company	393	7	27	0.050	0.0001	0.0001
Republic DUMPCO (Apex)	395	1	25	0.000	0.0000	0.0000
Republic DUMPCO (Apex)	395	6	25	24.000	0.0658	0.0658
Republic DUMPCO (Apex)	395	7	25	0.080	0.0002	0.0002
Republic DUMPCO (Apex)	395	5	25	5.130	0.0141	0.0141
City of Las Vegas WPCF	402	1	25	0.000	0.0000	0.0000
City of Las Vegas WPCF	402	2	25	0.070	0.0002	0.0002
City of Las Vegas WPCF	402	3	25	0.010	0.0000	0.0000
City of Las Vegas WPCF	402	4	25	0.000	0.0000	0.0000
City of Las Vegas WPCF	402	5	25	0.340	0.0009	0.0009
City of Las Vegas WPCF	402	6	25	3.640	0.0100	0.0100
City of Las Vegas WPCF	402	7	25	0.210	0.0006	0.0006
City of Las Vegas WPCF	402	8	25	0.110	0.0003	0.0003
Nikkiso Cryo	404	1	25	0.390	0.0011	0.0011
Nevada Sun Peak Partnerships	423	1	37	0.110	0.0003	0.0004
Nevada Sun Peak Partnerships	423	2	37	0.080	0.0002	0.0003

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	2017 VOC Emissions (tons/day)	2017 VOC Summer Emissions (tons/day)
Nevada Sun Peak Partnerships	423	3	37	0.060	0.0002	0.0002
Kern River (Goodsprings)	468	1	25	7.530	0.0206	0.0206
Creech AFB	473	All	25	6.630	0.0182	0.0182
Southern Desert Correctional Center	475	All	25	1.360	0.0037	0.0037
Hard Rock Hotel and Casino	510	1	25	0.250	0.0007	0.0007
Texas Station Casino	531	1	25	0.420	0.0012	0.0012
NV Energy (Harry Allen)	533	1	80	0.340	0.0009	0.0030
NV Energy (Harry Allen)	533	2	80	0.020	0.0001	0.0002
NV Energy (Harry Allen)	533	3	80	20.320	0.0557	0.1781
NV Energy (Harry Allen)	533	4	80	20.980	0.0575	0.1839
NV Energy (Harry Allen)	533	7	80	0.000	0.0000	0.0000
NV Energy (Harry Allen)	533	8	80	0.010	0.0000	0.0001
NV Energy (Harry Allen)	533	9	80	0.500	0.0014	0.0044
NV Energy (Harry Allen)	533	10	80	0.000	0.0000	0.0000
Citibank The Lakes	546	1	25	0.010	0.0000	0.0000
Rio All Suites Hotel and Casino	555	1	25	1.630	0.0045	0.0045
Kurt Segler Water Reclamation	558	1	25	1.140	0.0031	0.0031
Stratosphere Hotel and Casino	564	1	25	0.500	0.0014	0.0014
Letica Corporation	569	1	25	3.200	0.0088	0.0088
Aggregate Industries - Gowan	587	All	25	7.430	0.0204	0.0204
Las Vegas Review Journal	588	All	25	8.090	0.0222	0.0222
Georgia Pacific	593	C01	25	0.185	0.0005	0.0005
Georgia Pacific	593	C02	25	0.180	0.0005	0.0005
Georgia Pacific	593	C03	25	0.188	0.0005	0.0005
Georgia Pacific	593	C04	25	0.163	0.0004	0.0004
Georgia Pacific	593	C05	25	0.121	0.0003	0.0003
Georgia Pacific	593	E03	25	19.201	0.0526	0.0526
Georgia Pacific	593	E105	25	0.276	0.0008	0.0008
Georgia Pacific	593	E106	25	0.000	0.0000	0.0000
Georgia Pacific	593	E110	25	0.000	0.0000	0.0000
Georgia Pacific	593	E111	25	0.000	0.0000	0.0000
Georgia Pacific	593	E145	25	0.000	0.0000	0.0000
Georgia Pacific	593	E146	25	0.000	0.0000	0.0000
Georgia Pacific	593	E147	25	0.000	0.0000	0.0000
Georgia Pacific	593	E148	25	0.000	0.0000	0.0000
Georgia Pacific	593	E153	25	0.000	0.0000	0.0000

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	2017 VOC Emissions (tons/day)	2017 VOC Summer Emissions (tons/day)
Georgia Pacific	593	E154	25	0.000	0.0000	0.0000
Georgia Pacific	593	G33	25	0.000	0.0000	0.0000
Georgia Pacific	593	G34	25	0.001	0.0000	0.0000
Georgia Pacific	593	Z01	25	0.000	0.0000	0.0000
Berry Plastics Corporation	597	All	25	5.640	0.0155	0.0155
Palace Station Hotel and Casino	605	1	25	0.510	0.0014	0.0014
Gold Coast Hotel and Casino	606	1	25	0.330	0.0009	0.0009
Sams Town Hotel and Casino	616	1	25	0.240	0.0007	0.0007
Primm Valley Resorts	617	1	25	11.710	0.0321	0.0321
Santa Fe Station	621	1	25	0.680	0.0019	0.0019
Harrah's Laughlin	627	1	25	1.460	0.0040	0.0040
Edgewater Hotel and Casino	630	1	25	1.510	0.0041	0.0041
Riverside Resort	632	1	25	0.110	0.0003	0.0003
Tropicana Laughlin	633	1	25	0.330	0.0009	0.0009
University of Nevada, Las Vegas	634	All	25	0.800	0.0022	0.0022
Orleans Hotel and Casino	641	1	25	0.510	0.0014	0.0014
El Dorado Energy	652	A01	27	9.320	0.0255	0.0276
El Dorado Energy	652	A02	27	10.940	0.0300	0.0324
El Dorado Energy	652	A03	27	0.010	0.0000	0.0000
Venetian Hotel and Casino	697	1	25	3.290	0.0090	0.0090
Verizon Business	726	All	25	0.020	0.0001	0.0001
Nevada Color Litho	754	All	25	18.860	0.0517	0.0517
JW Marriott Las Vegas	755	1	25	0.360	0.0010	0.0010
Suncoast Hotel and Casino	775	1	25	0.260	0.0007	0.0007
Viawest	777	All	25	0.030	0.0001	0.0001
Cancun Resort	788	1	25	0.180	0.0005	0.0005
Clearwater Paper	807	All	25	22.070	0.0605	0.0605
MGM Grand/New York New York	825	1	25	10.600	0.0290	0.0290
Univeral Urethane	859	All	25	22.250	0.0610	0.0610
H Lima Nevada	868	All	25	1.920	0.0053	0.0053
Sunset Station	869	1	25	0.340	0.0009	0.0009
Yesco	974	All	25	4.820	0.0132	0.0132
West Rock	1055	All	25	10.860	0.0298	0.0298
Republic Services Transfer Station	1087	All	25	5.660	0.0155	0.0155
Las Vegas Color Graphics	1149	All	25	7.300	0.0200	0.0200
St Rose Dominican Siena	1500	All	25	0.790	0.0022	0.0022

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	2017 VOC Emissions (tons/day)	2017 VOC Summer Emissions (tons/day)
Green Valley Ranch Resort	1501	1	25	0.230	0.0006	0.0006
NV Energy (Chuck Lenzie)	1513	1	25	18.850	0.0516	0.0516
NV Energy (Chuck Lenzie)	1513	3	25	18.950	0.0519	0.0519
NV Energy (Chuck Lenzie)	1513	5	25	17.630	0.0483	0.0483
NV Energy (Chuck Lenzie)	1513	7	25	18.770	0.0514	0.0514
NV Energy (Chuck Lenzie)	1513	9	25	0.040	0.0001	0.0001
NV Energy (Chuck Lenzie)	1513	10	25	0.040	0.0001	0.0001
NV Energy (Chuck Lenzie)	1513	12	25	0.010	0.0000	0.0000
NV Energy (Chuck Lenzie)	1513	13	25	0.010	0.0000	0.0000
NV Energy (Chuck Lenzie)	1513	14	25	0.000	0.0000	0.0000
NV Energy (Chuck Lenzie)	1513	15	25	0.000	0.0000	0.0000
NV Energy (Chuck Lenzie)	1513	16	25	0.000	0.0000	0.0000
High Desert State Prison	1516	All	25	0.940	0.0026	0.0026
Las Vegas Power Company, LLC	1520	A01,2	45	10.800	0.0296	0.0533
Las Vegas Power Company, LLC	1520	A03,4	45	10.900	0.0299	0.0538
Las Vegas Power Company, LLC	1520	A05	45	0.150	0.0004	0.0007
Las Vegas Power Company, LLC	1520	A06	45	0.030	0.0001	0.0001
Las Vegas Power Company, LLC	1520	A07	45	0.120	0.0003	0.0006
Palms Casino Resort	1522	1	25	0.400	0.0011	0.0011
Boulder Station Hotel and Casino	1524	1	25	0.180	0.0005	0.0005
NV Energy (Walter Higgins)	1550	A01,2	31	12.060	0.0330	0.0410
NV Energy (Walter Higgins)	1550	A03,4	31	11.650	0.0319	0.0396
NV Energy (Walter Higgins)	1550	A05	31	0.030	0.0001	0.0001
NV Energy (Walter Higgins)	1550	A06	31	0.010	0.0000	0.0000
Mountain View Hospital	1569	All	25	0.250	0.0007	0.0007
NV Energy (Silverhawk)	1584	A01	30	21.320	0.0584	0.0701
NV Energy (Silverhawk)	1584	A03	30	22.480	0.0616	0.0739
NV Energy (Silverhawk)	1584	A05	30	0.330	0.0009	0.0011
NV Energy (Silverhawk)	1584	A06	30	0.000	0.0000	0.0000
Lasfuel McCarran Tank Farm	1589	All	25	14.810	0.0406	0.0406
Kern River (Dry Lake-Apex)	1590	1	25	5.300	0.0145	0.0145
Wynn Las Vegas	1624	All	25	1.820	0.0050	0.0050
North Las Vegas Airport	9596	All	25	1.400	0.0038	0.0038
Henderson Executive Airport	9603	All	25	0.860	0.0024	0.0024
Brady Linen Services	10201	All	25	3.630	0.0099	0.0099
Republic Services (Sunrise)	15033	1	25	1.190	0.0033	0.0033

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	2017 VOC Emissions (tons/day)	2017 VOC Summer Emissions (tons/day)
CPP Acquisition	15193	All	25	21.160	0.0580	0.0580
TPC Aggregates	15245	All	25	0.000	0.0000	0.0000
Service Rock Products	15387	All	25	2.790	0.0076	0.0076
McCarran Rent a Car Center	15409	All	25	8.400	0.0230	0.0230
Metl Span	15422	All	25	4.900	0.0134	0.0134
Artesian Spas	15426	All	25	6.970	0.0191	0.0191
Red Rock Casino Resort	15487	1	25	0.520	0.0014	0.0014
South Point hotel and Casino	15515	1	25	0.560	0.0015	0.0015
World Market Center	15541	All	25	0.080	0.0002	0.0002
CDW Logistics	15634	All	25	0.040	0.0001	0.0001
Manheim Nevada	15839	All	25	5.720	0.0157	0.0157
City of Henderson Downtown	15847	All	25	0.260	0.0007	0.0007
Centennial Hills Hospital	15873	All	25	0.340	0.0009	0.0009
Plasticard Locktech	15876	All	25	10.740	0.0294	0.0294
Veterans Administration	15970	All	25	0.870	0.0024	0.0024
2755 Las Vegas	15999	All	25	0.030	0.0001	0.0001
Cosmopolitan Las Vegas	16101	1	25	0.910	0.0025	0.0025
Biodiesel of Las Vegas	16118	All	25	0.040	0.0001	0.0001
UNEV Pipeline	16157	All	25	35.020	0.0959	0.0959
Ritchie Brothers	16172	All	25	0.960	0.0026	0.0026
VT Construction	16241	All	25	0.070	0.0002	0.0002
Switch	16258	All	25	0.130	0.0004	0.0004
Beltway Complex	16290	All	25	0.330	0.0009	0.0009
Erickson International	16295	All	25	2.010	0.0055	0.0055
GE Transport	16300	All	25	1.040	0.0028	0.0028
Switch Communications	16304	All	25	0.510	0.0014	0.0014
Pro Terminal Operators	16376	All	25	27.570	0.0755	0.0755
Treasure Island	16452	1	25	0.920	0.0025	0.0025
CC Landfill Energy LLC	16539	All	25	5.320	0.0146	0.0146
Clark County Downtown Campus	16665	All	25	0.820	0.0022	0.0022
CTC Crushing	16673	All	25	0.610	0.0017	0.0017
Freeman	16684	All	25	0.670	0.0018	0.0018
Terra Firma Organics	16706	All	25	0.160	0.0004	0.0004
Resorts World	16925	1	25	0.000	0.0000	0.0000
Geneva Polymer Products	16948	All	25	10.870	0.0298	0.0298
Preferred Laminations	17220	All	25	4.410	0.0121	0.0121

Facility Name	Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	2017 VOC Emissions (tons/day)	2017 VOC Summer Emissions (tons/day)
Viawest Lone Mountain Data Center	17272	All	25	0.030	0.0001	0.0001
Blue Diamond Hill Gypsum	17286	All	25	4.280	0.0117	0.0117
Shelby American	17347	All	25	1.670	0.0046	0.0046
NBC Fourth Realty	17439	All	25	0.160	0.0004	0.0004
Fisher Sand and Gravel	17716	All	25	3.690	0.0101	0.0101
Wells Cargo Lone Mountain	17749	All	25	0.170	0.0005	0.0005
Fisher Sand and Gravel	17771	All	25	0.540	0.0015	0.0015
Las Vegas Paving	17802	All	25	5.570	0.0153	0.0153
Las Vegas Paving	17855	All	25	0.170	0.0005	0.0005
Wier Dewatering	17913	All	25	0.010	0.0000	0.0000
Progress Rail	17918	All	25	0.000	0.0000	0.0000
NV Energy (Reid-Gardner)	AP400	4	27	1.800	0.0049	0.0053
				939.83	**2.57**	**2.95**

Table A-3. 2022 Projected NO_x Emissions

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	Growth Factor	2022 NO_x Emissions (tons/year)	2022 NO_x Emissions (tons/day)	2022 NO_x Summer Emissions (tons/day)
3	1	25	0.00	1.00	0.00	0.0000	0.0000
3	2	25	296.28	1.14	337.55	0.9248	0.9248
3	3	25	6.24	1.14	7.11	0.0195	0.0195
3	4	25	119.39	1.14	136.02	0.3727	0.3727
3	5	25	681.55	1.14	776.48	2.1273	2.1273
3	7	25	0.00	1.00	0.00	0.0000	0.0000
3	10	25	0.60	1.14	0.68	0.0019	0.0019
3	28	25	4.68	1.14	5.33	0.0146	0.0146
4	4-E11	25	7.45	1.09	8.14	0.0223	0.0223
4	4-F1	25	0.00	1.09	0.00	0.0000	0.0000
4	4-F2	25	0.00	1.09	0.00	0.0000	0.0000
4	4-F3	25	0.00	1.09	0.00	0.0000	0.0000
4	4-F4	25	0.00	1.09	0.00	0.0000	0.0000
4	4-G1	25	1.87	1.09	2.04	0.0056	0.0056
4	4-G1a	25	0.00	1.09	0.00	0.0000	0.0000
4	4-G1b	25	0.00	1.09	0.00	0.0000	0.0000
4	4-G1c	25	0.00	1.09	0.00	0.0000	0.0000
4	4-J3	25	11.53	1.09	12.60	0.0345	0.0345
4	4-L4	25	1.67	1.03	1.72	0.0047	0.0047
4	B8	25	0.03	1.03	0.03	0.0001	0.0001
4	J2	25	0.00	1.09	0.00	0.0000	0.0000
7	4	27	8.70	0.84	7.33	0.0201	0.0217
7	5	27	10.20	0.84	8.60	0.0236	0.0254
7	6	27	10.40	0.84	8.77	0.0240	0.0259
7	7	27	7.90	0.84	6.66	0.0182	0.0197
7	8	27	11.20	0.84	9.44	0.0259	0.0279
7	21	27	0.01	1.07	0.01	0.0000	0.0000
7	22	27	0.01	1.07	0.01	0.0000	0.0000
7	27	27	2.95	1.07	3.16	0.0087	0.0094
7	28	27	4.68	1.07	5.01	0.0137	0.0148
7	29	27	3.24	1.07	3.47	0.0095	0.0103
7	30	27	5.33	1.07	5.71	0.0156	0.0169
7	31	27	3.39	1.07	3.63	0.0100	0.0107
7	32	27	3.70	1.07	3.96	0.0109	0.0117

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	Growth Factor	2022 NO_x Emissions (tons/year)	2022 NO_x Emissions (tons/day)	2022 NO_x Summer Emissions (tons/day)
7	33	27	3.22	1.07	3.45	0.0095	0.0102
7	34	27	4.25	1.07	4.55	0.0125	0.0135
7	35	27	3.13	1.07	3.35	0.0092	0.0099
7	36	27	4.19	1.07	4.49	0.0123	0.0133
7	37	27	3.08	1.07	3.30	0.0090	0.0098
7	38	27	3.25	1.07	3.48	0.0095	0.0103
7	45	27	0.01	1.07	0.01	0.0000	0.0000
7	46	27	0.01	1.07	0.01	0.0000	0.0000
9	1	25	0.86	1.07	0.92	0.0025	0.0025
11	1	25	4.78	1.06	5.09	0.0139	0.0139
11	01a	25	0.00	1.06	0.00	0.0000	0.0000
11	5	25	0.55	1.14	0.63	0.0017	0.0017
11	9	25	1.04	1.14	1.18	0.0032	0.0032
11	10	25	1.04	1.14	1.18	0.0032	0.0032
11	11	25	1.04	1.14	1.18	0.0032	0.0032
11	12	25	0.52	1.14	0.59	0.0016	0.0016
11	13	25	0.52	1.14	0.59	0.0016	0.0016
11	14	25	0.52	1.14	0.59	0.0016	0.0016
11	18	25	21.44	1.14	24.43	0.0669	0.0669
11	18a	25	2.16	1.14	2.46	0.0067	0.0067
11	19	25	24.15	1.14	27.51	0.0754	0.0754
11	19a	25	2.44	1.14	2.78	0.0076	0.0076
11	20	25	16.60	1.14	18.91	0.0518	0.0518
11	20a	25	1.68	1.14	1.91	0.0052	0.0052
11	21	25	6.42	1.14	7.31	0.0200	0.0200
11	21a	25	0.65	1.14	0.74	0.0020	0.0020
11	22	25	5.80	1.14	6.61	0.0181	0.0181
11	22a	25	0.59	1.14	0.67	0.0018	0.0018
11	25	25	5.33	1.14	6.07	0.0166	0.0166
11	26	25	5.33	1.14	6.07	0.0166	0.0166
11	30	25	14.17	1.14	16.14	0.0442	0.0442
11	31	25	14.17	1.14	16.14	0.0442	0.0442
11	32	25	14.17	1.14	16.14	0.0442	0.0442
11	36	25	7.81	1.14	8.90	0.0244	0.0244
11	45	25	7.47	1.14	8.51	0.0233	0.0233

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	Growth Factor	2022 NO_x Emissions (tons/year)	2022 NO_x Emissions (tons/day)	2022 NO_x Summer Emissions (tons/day)
11	46	25	7.47	1.14	8.51	0.0233	0.0233
11	48	25	1.70	1.14	1.94	0.0053	0.0053
11	50	25	14.17	1.14	16.14	0.0442	0.0442
11	51	25	14.17	1.14	16.14	0.0442	0.0442
11	52	25	14.17	1.14	16.14	0.0442	0.0442
12	1	25	7.12	1.14	8.14	0.0223	0.0223
12	2	25	0.62	1.13	0.70	0.0019	0.0019
12	3	25	0.00	1.13	0.00	0.0000	0.0000
13	B10	25	0.03	0.99	0.03	0.0001	0.0001
13	D02	25	0.07	1.00	0.07	0.0002	0.0002
13	SR04	25	0.23	1.09	0.25	0.0007	0.0007
19	A01	25	12.41	1.18	14.58	0.0399	0.0399
19	B06	25	8.33	1.12	9.31	0.0255	0.0255
19	B09	25	1.31	0.96	1.26	0.0035	0.0035
19	B10	25	0.10	1.18	0.12	0.0003	0.0003
19	C05	25	1.07	1.18	1.26	0.0034	0.0034
19	D02E	25	0.00	1.18	0.00	0.0000	0.0000
19	D02W	25	0.00	1.18	0.00	0.0000	0.0000
19	E03	25	0.01	1.18	0.01	0.0000	0.0000
19	G02	25	0.00	1.07	0.00	0.0000	0.0000
19	G10	25	0.00	1.07	0.00	0.0000	0.0000
19	M11	25	0.00	1.07	0.00	0.0000	0.0000
26	1	25	2.07	1.14	2.36	0.0065	0.0065
47	1	25	4.52	1.14	5.15	0.0141	0.0141
54	1	25	7.53	1.07	8.07	0.0221	0.0221
67	1	25	0.45	1.07	0.48	0.0013	0.0013
70	B12	25	2.98	1.07	3.19	0.0087	0.0087
75	1	25	1.59	1.22	1.94	0.0053	0.0053
81	1	25	0.89	1.14	1.01	0.0028	0.0028
85	1	25	17.45	1.14	19.88	0.0545	0.0545
95	A01	25	0.04	1.03	0.04	0.0001	0.0001
95	A02	25	0.10	1.03	0.10	0.0003	0.0003
95	A03	25	0.10	1.03	0.10	0.0003	0.0003
95	A04	25	0.37	1.03	0.38	0.0010	0.0010
95	A05	25	5.14	1.14	5.86	0.0160	0.0160

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	Growth Factor	2022 NO_x Emissions (tons/year)	2022 NO_x Emissions (tons/day)	2022 NO_x Summer Emissions (tons/day)
95	A07	25	0.70	1.14	0.80	0.0022	0.0022
95	A10	25	6.07	1.16	7.05	0.0193	0.0193
95	A15	25	1.20	1.16	1.39	0.0038	0.0038
101	All	25	3.37	1.07	3.61	0.0099	0.0099
104	All	25	5.80	1.07	6.21	0.0170	0.0170
105	All	25	50.95	1.07	54.59	0.1496	0.1496
108	All	25	8.01	1.07	8.58	0.0235	0.0235
114	All	25	19.81	1.07	21.23	0.0582	0.0582
133	1	25	3.42	1.14	3.90	0.0107	0.0107
138	1	25	0.55	1.06	0.59	0.0016	0.0016
138	2	25	127.12	1.06	135.29	0.3707	0.3707
142	All	25	4.03	1.07	4.32	0.0118	0.0118
186	All	25	1.86	1.07	1.99	0.0055	0.0055
257	1	25	19.90	1.14	22.67	0.0621	0.0621
282	1	25	7.81	1.14	8.90	0.0244	0.0244
322	1	25	26.74	1.07	28.65	0.0785	0.0785
323	1	25	2.34	1.21	2.82	0.0077	0.0077
329	1	51	5.33	0.85	4.55	0.0125	0.0254
329	3	51	2.00	1.01	2.03	0.0056	0.0113
329	4	51	2.75	1.01	2.79	0.0076	0.0156
329	5	51	2.72	1.01	2.76	0.0076	0.0154
329	6	51	2.86	1.01	2.90	0.0079	0.0162
329	8	51	0.00	0.93	0.00	0.0000	0.0000
329	9	51	0.00	0.93	0.00	0.0000	0.0000
329	10	51	0.04	1.00	0.04	0.0001	0.0002
329	11	51	0.08	1.00	0.08	0.0002	0.0004
346	All	25	0.29	1.07	0.31	0.0009	0.0009
360	1	27	35.29	1.14	40.21	0.1102	0.1190
360	2	27	36.91	1.14	42.05	0.1152	0.1244
360	3	27	34.49	1.14	39.29	0.1077	0.1163
360	4	27	0.19	1.07	0.20	0.0006	0.0006
360	6	27	0.01	1.07	0.01	0.0000	0.0000
360	8	27	0.20	1.07	0.21	0.0006	0.0006
372	1	25	4.01	1.07	4.30	0.0118	0.0118
372	2	25	0.23	1.08	0.25	0.0007	0.0007

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	Growth Factor	2022 NO_x Emissions (tons/year)	2022 NO_x Emissions (tons/day)	2022 NO_x Summer Emissions (tons/day)
372	3	25	0.23	1.00	0.23	0.0006	0.0006
372	4	25	0.00	1.00	0.00	0.0000	0.0000
372	5	25	0.01	1.00	0.01	0.0000	0.0000
372	6	25	2.80	1.14	3.19	0.0087	0.0087
372	7	25	0.00	1.07	0.00	0.0000	0.0000
372	8	25	0.00	1.14	0.00	0.0000	0.0000
372	9	25	0.38	1.07	0.41	0.0011	0.0011
372	10	25	0.51	1.14	0.58	0.0016	0.0016
372	11	25	0.00	1.15	0.00	0.0000	0.0000
372	12	25	0.00	1.15	0.00	0.0000	0.0000
372	13	25	0.00	1.15	0.00	0.0000	0.0000
391	1	27	36.89	1.14	42.03	0.1151	0.1244
391	2	27	34.73	1.14	39.57	0.1084	0.1171
391	3	27	35.24	1.14	40.15	0.1100	0.1188
391	4	27	0.16	0.95	0.15	0.0004	0.0004
391	5	27	0.10	1.07	0.11	0.0003	0.0003
391	7	27	0.01	1.01	0.01	0.0000	0.0000
393	1	27	51.92	0.84	43.76	0.1199	0.1295
393	2	27	49.45	0.84	41.68	0.1142	0.1233
393	3	27	0.06	1.00	0.06	0.0002	0.0002
393	4	27	0.08	1.00	0.08	0.0002	0.0002
393	5	27	0.36	0.92	0.33	0.0009	0.0010
393	6	27	0.92	0.92	0.85	0.0023	0.0025
393	7	27	0.00	1.00	0.00	0.0000	0.0000
395	1	25	1.25	1.06	1.33	0.0036	0.0036
395	6	25	0.00	1.06	0.00	0.0000	0.0000
395	7	25	0.48	1.00	0.48	0.0013	0.0013
395	5	25	46.83	1.07	50.18	0.1375	0.1375
402	1	25	0.00	1.07	0.00	0.0000	0.0000
402	2	25	1.01	1.07	1.08	0.0030	0.0030
402	3	25	0.10	0.84	0.08	0.0002	0.0002
402	4	25	0.00	1.00	0.00	0.0000	0.0000
402	5	25	5.74	1.15	6.60	0.0181	0.0181
402	6	25	13.05	1.15	15.01	0.0411	0.0411
402	7	25	3.91	1.00	3.91	0.0107	0.0107

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	Growth Factor	2022 NO_x Emissions (tons/year)	2022 NO_x Emissions (tons/day)	2022 NO_x Summer Emissions (tons/day)
402	8	25	0.00	1.15	0.00	0.0000	0.0000
404	1	25	8.90	1.07	9.54	0.0261	0.0261
423	1	37	6.73	0.84	5.67	0.0155	0.0230
423	2	37	5.10	0.84	4.30	0.0118	0.0174
423	3	37	4.06	0.84	3.42	0.0094	0.0139
468	1	25	41.01	1.14	46.72	0.1280	0.1280
473	All	25	14.70	1.07	15.75	0.0432	0.0432
475	All	25	14.09	1.07	15.10	0.0414	0.0414
510	1	25	1.48	1.14	1.69	0.0046	0.0046
531	1	25	3.26	1.14	3.71	0.0102	0.0102
533	1	80	5.60	1.00	5.60	0.0153	0.0491
533	2	80	0.35	1.00	0.35	0.0010	0.0031
533	3	80	29.32	1.01	29.74	0.0815	0.2607
533	4	80	31.39	1.01	31.84	0.0872	0.2791
533	7	80	0.02	1.00	0.02	0.0001	0.0002
533	8	80	0.23	1.00	0.23	0.0006	0.0020
533	9	80	5.60	1.01	5.68	0.0156	0.0498
533	10	80	0.02	1.00	0.02	0.0001	0.0002
546	1	25	0.28	1.07	0.30	0.0008	0.0008
555	1	25	24.41	1.14	27.81	0.0762	0.0762
558	1	25	7.70	1.07	8.25	0.0226	0.0226
564	1	25	6.84	1.14	7.79	0.0213	0.0213
569	1	25	0.04	1.07	0.04	0.0001	0.0001
587	All	25	6.26	1.07	6.71	0.0184	0.0184
588	All	25	1.35	1.07	1.45	0.0040	0.0040
593	C01	25	2.61	1.14	2.97	0.0081	0.0081
593	C02	25	2.68	1.14	3.06	0.0084	0.0084
593	C03	25	2.65	1.14	3.02	0.0083	0.0083
593	C04	25	2.31	1.14	2.63	0.0072	0.0072
593	C05	25	1.70	1.14	1.94	0.0053	0.0053
593	E03	25	24.14	1.14	27.50	0.0753	0.0753
593	E105	25	4.39	1.14	5.00	0.0137	0.0137
593	E106	25	0.00	1.14	0.00	0.0000	0.0000
593	E110	25	0.00	1.14	0.00	0.0000	0.0000
593	E111	25	0.00	1.14	0.00	0.0000	0.0000

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	Growth Factor	2022 NO_x Emissions (tons/year)	2022 NO_x Emissions (tons/day)	2022 NO_x Summer Emissions (tons/day)
593	E145	25	0.00	0.84	0.00	0.0000	0.0000
593	E146	25	0.00	0.84	0.00	0.0000	0.0000
593	E147	25	0.00	0.84	0.00	0.0000	0.0000
593	E148	25	0.00	0.84	0.00	0.0000	0.0000
593	E153	25	0.00	0.84	0.00	0.0000	0.0000
593	E154	25	0.00	1.14	0.00	0.0000	0.0000
593	G33	25	0.00	1.00	0.00	0.0000	0.0000
593	G34	25	0.04	1.00	0.04	0.0001	0.0001
593	Z01	25	0.00	1.14	0.00	0.0000	0.0000
597	All	25	0.09	1.07	0.10	0.0003	0.0003
605	1	25	9.38	1.14	10.69	0.0293	0.0293
606	1	25	2.33	1.14	2.65	0.0073	0.0073
616	1	25	4.98	1.14	5.67	0.0155	0.0155
617	1	25	14.74	1.07	15.79	0.0433	0.0433
621	1	25	4.67	1.14	5.32	0.0146	0.0146
627	1	25	2.62	1.14	2.98	0.0082	0.0082
630	1	25	9.56	1.14	10.89	0.0298	0.0298
632	1	25	1.57	1.14	1.79	0.0049	0.0049
633	1	25	2.28	1.14	2.60	0.0071	0.0071
634	All	25	7.57	1.07	8.11	0.0222	0.0222
641	1	25	8.03	1.14	9.15	0.0251	0.0251
652	A01	27	25.88	1.00	25.88	0.0709	0.0766
652	A02	27	30.94	1.00	30.94	0.0848	0.0915
652	A03	27	0.07	1.07	0.08	0.0002	0.0002
697	1	25	17.84	1.14	20.32	0.0557	0.0557
726	All	25	0.96	1.07	1.03	0.0028	0.0028
754	All	25	0.00	1.07	0.00	0.0000	0.0000
755	1	25	2.53	1.14	2.88	0.0079	0.0079
775	1	25	2.64	1.14	3.01	0.0082	0.0082
777	All	25	1.11	1.07	1.19	0.0033	0.0033
788	1	25	3.32	1.14	3.78	0.0104	0.0104
807	All	25	37.65	1.07	40.34	0.1105	0.1105
825	1	25	65.07	1.14	74.13	0.2031	0.2031
859	All	25	0.00	1.07	0.00	0.0000	0.0000
868	All	25	10.57	1.07	11.33	0.0310	0.0310

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	Growth Factor	2022 NO_x Emissions (tons/year)	2022 NO_x Emissions (tons/day)	2022 NO_x Summer Emissions (tons/day)
869	1	25	2.51	1.14	2.86	0.0078	0.0078
974	All	25	0.00	1.07	0.00	0.0000	0.0000
1055	All	25	0.00	1.07	0.00	0.0000	0.0000
1087	All	25	0.29	1.07	0.31	0.0009	0.0009
1149	All	25	0.00	1.07	0.00	0.0000	0.0000
1500	All	25	7.24	1.07	7.76	0.0213	0.0213
1501	1	25	1.87	1.14	2.13	0.0058	0.0058
1513	1	25	58.41	1.01	59.24	0.1623	0.1623
1513	3	25	58.33	1.01	59.16	0.1621	0.1621
1513	5	25	55.06	1.01	55.85	0.1530	0.1530
1513	7	25	58.80	1.01	59.64	0.1634	0.1634
1513	9	25	0.24	1.09	0.26	0.0007	0.0007
1513	10	25	0.24	1.09	0.26	0.0007	0.0007
1513	12	25	0.20	1.06	0.21	0.0006	0.0006
1513	13	25	0.15	1.06	0.16	0.0004	0.0004
1513	14	25	0.07	1.07	0.08	0.0002	0.0002
1513	15	25	0.00	1.07	0.00	0.0000	0.0000
1513	16	25	0.00	1.14	0.00	0.0000	0.0000
1516	All	25	19.59	1.07	20.99	0.0575	0.0575
1520	A01,2	45	56.20	1.00	56.20	0.1540	0.2772
1520	A03,4	45	58.30	1.00	58.30	0.1597	0.2875
1520	A05	45	2.40	1.07	2.57	0.0070	0.0127
1520	A06	45	0.10	1.07	0.11	0.0003	0.0005
1520	A07	45	0.11	1.07	0.12	0.0003	0.0006
1522	1	25	3.32	1.14	3.78	0.0104	0.0104
1524	1	25	2.74	1.14	3.12	0.0086	0.0086
1550	A01,2	31	39.90	1.00	39.90	0.1093	0.1356
1550	A03,4	31	38.10	1.00	38.10	0.1044	0.1294
1550	A05	31	0.30	1.14	0.34	0.0009	0.0012
1550	A06	31	0.04	1.07	0.04	0.0001	0.0001
1569	All	25	2.09	1.07	2.24	0.0061	0.0061
1584	A01	30	39.30	1.00	39.30	0.1077	0.1292
1584	A03	30	40.20	1.00	40.20	0.1101	0.1322
1584	A05	30	1.16	1.07	1.24	0.0034	0.0041
1584	A06	30	0.02	1.07	0.02	0.0001	0.0001

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	Growth Factor	2022 NO_x Emissions (tons/year)	2022 NO_x Emissions (tons/day)	2022 NO_x Summer Emissions (tons/day)
1589	All	25	0.85	1.07	0.91	0.0025	0.0025
1590	1	25	21.99	1.14	25.05	0.0686	0.0686
1624	All	25	9.86	1.07	10.56	0.0289	0.0289
9596	All	25	0.06	1.07	0.06	0.0002	0.0002
9603	All	25	0.10	1.07	0.11	0.0003	0.0003
10201	All	25	23.96	1.07	25.67	0.0703	0.0703
15033	1	25	4.68	1.16	5.42	0.0148	0.0148
15193	All	25	12.87	1.07	13.79	0.0378	0.0378
15245	All	25	0.00	1.07	0.00	0.0000	0.0000
15387	All	25	91.77	1.07	98.33	0.2694	0.2694
15409	All	25	0.13	1.07	0.14	0.0004	0.0004
15422	All	25	0.00	1.07	0.00	0.0000	0.0000
15426	All	25	0.10	1.07	0.11	0.0003	0.0003
15487	1	25	5.63	1.14	6.41	0.0176	0.0176
15515	1	25	3.84	1.07	4.11	0.0113	0.0113
15541	All	25	2.66	1.07	2.85	0.0078	0.0078
15634	All	25	0.52	1.07	0.56	0.0015	0.0015
15839	All	25	5.01	1.07	5.37	0.0147	0.0147
15847	All	25	1.99	1.07	2.13	0.0058	0.0058
15873	All	25	2.80	1.07	3.00	0.0082	0.0082
15876	All	25	0.91	1.07	0.98	0.0027	0.0027
15970	All	25	4.88	1.07	5.23	0.0143	0.0143
15999	All	25	0.71	1.07	0.76	0.0021	0.0021
16101	1	25	2.64	1.07	2.83	0.0077	0.0077
16118	All	25	0.02	1.07	0.02	0.0001	0.0001
16157	All	25	0.01	1.07	0.01	0.0000	0.0000
16172	All	25	0.03	1.07	0.03	0.0001	0.0001
16241	All	25	4.17	1.07	4.47	0.0122	0.0122
16258	All	25	1.83	1.07	1.96	0.0054	0.0054
16290	All	25	1.05	1.07	1.13	0.0031	0.0031
16295	All	25	0.10	1.07	0.11	0.0003	0.0003
16300	All	25	0.00	1.07	0.00	0.0000	0.0000
16304	All	25	33.23	1.07	35.60	0.0975	0.0975
16376	All	25	0.07	1.07	0.08	0.0002	0.0002
16452	1	25	4.66	1.07	4.99	0.0137	0.0137

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 NO_x Emissions (tons/year)	Growth Factor	2022 NO_x Emissions (tons/year)	2022 NO_x Emissions (tons/day)	2022 NO_x Summer Emissions (tons/day)
16539	All	25	31.40	1.07	33.64	0.0922	0.0922
16665	All	25	6.65	1.07	7.13	0.0195	0.0195
16673	All	25	11.35	1.07	12.16	0.0333	0.0333
16684	All	25	0.11	1.07	0.12	0.0003	0.0003
16706	All	25	3.34	1.07	3.58	0.0098	0.0098
16925	1	25	0.00	1.07	0.00	0.0000	0.0000
16948	All	25	0.66	1.07	0.71	0.0019	0.0019
17220	All	25	0.00	1.07	0.00	0.0000	0.0000
17272	All	25	0.40	1.07	0.43	0.0012	0.0012
17286	All	25	74.18	1.07	79.48	0.2177	0.2177
17347	All	25	0.18	1.07	0.19	0.0005	0.0005
17439	All	25	5.92	1.07	6.34	0.0174	0.0174
17716	All	25	18.90	1.07	20.25	0.0555	0.0555
17749	All	25	39.53	1.07	42.35	0.1160	0.1160
17771	All	25	3.60	1.07	3.86	0.0106	0.0106
17802	All	25	13.53	1.07	14.50	0.0397	0.0397
17855	All	25	2.47	1.07	2.65	0.0073	0.0073
17913	All	25	0.55	1.07	0.59	0.0016	0.0016
17918	All	25	0.00	1.07	0.00	0.0000	0.0000
AP400	4	27	401.20	0.00	0.00	0.0000	0.0000
TOTAL			**4144.95**		**4062.80**	**11.13**	**12.09**

Table A-4. 2022 Projected VOC Emissions

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	Growth Factor	2022 VOC Emissions (tons/year)	2022 VOC Emissions (tons/day)	2022 VOC Summer Emissions (tons/day)
3	1	25	0.000	1.00	0.000	0.0000	0.0000
3	2	25	0.560	1.06	0.596	0.0016	0.0016
3	3	25	0.010	1.06	0.011	0.0000	0.0000
3	4	25	0.210	1.06	0.224	0.0006	0.0006
3	5	25	2.280	1.06	2.427	0.0066	0.0066
3	7	25	0.000	1.00	0.000	0.0000	0.0000
3	10	25	0.030	1.06	0.032	0.0001	0.0001
3	28	25	3.520	1.06	3.746	0.0103	0.0103
4	4-E11	25	0.290	1.14	0.330	0.0009	0.0009
4	4-F1	25	0.310	1.00	0.310	0.0008	0.0008
4	4-F2	25	0.000	1.14	0.000	0.0000	0.0000
4	4-F3	25	0.000	1.14	0.000	0.0000	0.0000
4	4-F4	25	0.000	1.14	0.000	0.0000	0.0000
4	4-G1	25	0.100	1.00	0.100	0.0003	0.0003
4	4-G1a	25	0.000	1.14	0.000	0.0000	0.0000
4	4-G1b	25	0.000	1.14	0.000	0.0000	0.0000
4	4-G1c	25	0.000	1.14	0.000	0.0000	0.0000
4	4-J3	25	0.700	1.14	0.798	0.0022	0.0022
4	4-L4	25	0.190	1.07	0.204	0.0006	0.0006
4	B8	25	0.010	1.00	0.010	0.0000	0.0000
4	J2	25	0.000	1.14	0.000	0.0000	0.0000
7	4	27	0.520	0.94	0.488	0.0013	0.0014
7	5	27	2.290	0.94	2.151	0.0059	0.0064
7	6	27	2.530	0.94	2.376	0.0065	0.0070
7	7	27	1.830	0.94	1.719	0.0047	0.0051
7	8	27	2.440	0.94	2.292	0.0063	0.0068
7	21	27	0.010	1.07	0.011	0.0000	0.0000
7	22	27	0.000	1.07	0.000	0.0000	0.0000
7	27	27	0.260	1.07	0.279	0.0008	0.0008
7	28	27	0.440	1.07	0.471	0.0013	0.0014
7	29	27	0.340	1.07	0.364	0.0010	0.0011
7	30	27	0.540	1.07	0.579	0.0016	0.0017
7	31	27	0.390	1.07	0.418	0.0011	0.0012
7	32	27	0.440	1.07	0.471	0.0013	0.0014

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	Growth Factor	2022 VOC Emissions (tons/year)	2022 VOC Emissions (tons/day)	2022 VOC Summer Emissions (tons/day)
7	33	27	0.330	1.07	0.354	0.0010	0.0010
7	34	27	0.470	1.07	0.504	0.0014	0.0015
7	35	27	0.300	1.07	0.321	0.0009	0.0010
7	36	27	0.360	1.07	0.386	0.0011	0.0011
7	37	27	0.320	1.07	0.343	0.0009	0.0010
7	38	27	0.300	1.07	0.321	0.0009	0.0010
7	45	27	0.010	1.07	0.011	0.0000	0.0000
7	46	27	0.000	1.07	0.000	0.0000	0.0000
9	1	25	0.290	1.07	0.311	0.0009	0.0009
11	1	25	21.560	1.06	22.946	0.0629	0.0629
11	01a	25	0.000	1.14	0.000	0.0000	0.0000
11	5	25	0.000	1.14	0.000	0.0000	0.0000
11	9	25	0.080	1.14	0.091	0.0002	0.0002
11	10	25	0.080	1.14	0.091	0.0002	0.0002
11	11	25	0.080	1.14	0.091	0.0002	0.0002
11	12	25	0.040	1.14	0.046	0.0001	0.0001
11	13	25	0.040	1.14	0.046	0.0001	0.0001
11	14	25	0.040	1.14	0.046	0.0001	0.0001
11	18	25	2.090	1.14	2.381	0.0065	0.0065
11	18a	25	0.040	1.14	0.046	0.0001	0.0001
11	19	25	2.360	1.14	2.689	0.0074	0.0074
11	19a	25	0.050	1.14	0.057	0.0002	0.0002
11	20	25	1.620	1.14	1.846	0.0051	0.0051
11	20a	25	0.030	1.14	0.034	0.0001	0.0001
11	21	25	0.630	1.14	0.718	0.0020	0.0020
11	21a	25	0.010	1.14	0.011	0.0000	0.0000
11	22	25	0.570	1.14	0.649	0.0018	0.0018
11	22a	25	0.010	1.14	0.011	0.0000	0.0000
11	25	25	0.280	1.14	0.319	0.0009	0.0009
11	26	25	0.280	1.14	0.319	0.0009	0.0009
11	30	25	0.280	1.14	0.319	0.0009	0.0009
11	31	25	0.280	1.14	0.319	0.0009	0.0009
11	32	25	0.280	1.14	0.319	0.0009	0.0009
11	36	25	0.540	1.14	0.615	0.0017	0.0017
11	45	25	0.290	1.00	0.290	0.0008	0.0008

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	Growth Factor	2022 VOC Emissions (tons/year)	2022 VOC Emissions (tons/day)	2022 VOC Summer Emissions (tons/day)
11	46	25	0.290	1.00	0.290	0.0008	0.0008
11	48	25	10.960	1.00	10.960	0.0300	0.0300
11	50	25	0.560	1.00	0.560	0.0015	0.0015
11	51	25	0.560	1.00	0.560	0.0015	0.0015
11	52	25	0.560	1.00	0.560	0.0015	0.0015
12	1	25	8.760	1.14	10.011	0.0274	0.0274
12	2	25	0.030	1.00	0.030	0.0001	0.0001
12	3	25	5.360	1.14	6.126	0.0168	0.0168
13	B10	25	0.028	1.08	0.030	0.0001	0.0001
13	D02	25	0.005	1.08	0.005	0.0000	0.0000
13	SR04	25	59.300	1.08	64.171	0.1758	0.1758
19	A01	25	2.141	1.18	2.516	0.0069	0.0069
19	B06	25	0.170	1.18	0.200	0.0005	0.0005
19	B09	25	0.000	1.08	0.000	0.0000	0.0000
19	B10	25	0.000	1.08	0.000	0.0000	0.0000
19	C05	25	0.059	1.08	0.064	0.0002	0.0002
19	D02E	25	0.000	1.08	0.000	0.0000	0.0000
19	D02W	25	0.000	1.08	0.000	0.0000	0.0000
19	E03	25	0.000	1.18	0.000	0.0000	0.0000
19	G02	25	0.000	1.07	0.000	0.0000	0.0000
19	G10	25	0.000	1.07	0.000	0.0000	0.0000
19	M11	25	0.000	1.07	0.000	0.0000	0.0000
26	1	25	0.210	1.14	0.239	0.0007	0.0007
47	1	25	0.610	1.14	0.695	0.0019	0.0019
54	1	25	3.390	1.07	3.632	0.0100	0.0100
67	1	25	0.720	1.07	0.771	0.0021	0.0021
70	B12	25	4.970	1.07	5.325	0.0146	0.0146
75	1	25	7.220	1.22	8.793	0.0241	0.0241
81	1	25	0.150	1.14	0.171	0.0005	0.0005
85	1	25	0.960	1.14	1.094	0.0030	0.0030
95	A01	25	0.001	1.03	0.001	0.0000	0.0000
95	A02	25	0.010	1.03	0.010	0.0000	0.0000
95	A03	25	0.010	1.03	0.010	0.0000	0.0000
95	A04	25	0.030	1.03	0.031	0.0001	0.0001
95	A05	25	0.930	1.14	1.060	0.0029	0.0029

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	Growth Factor	2022 VOC Emissions (tons/year)	2022 VOC Emissions (tons/day)	2022 VOC Summer Emissions (tons/day)
95	A07	25	0.040	1.14	0.046	0.0001	0.0001
95	A10	25	0.330	1.16	0.383	0.0010	0.0010
95	A15	25	0.070	1.16	0.081	0.0002	0.0002
101	All	25	0.590	1.07	0.632	0.0017	0.0017
104	All	25	8.700	1.07	9.321	0.0255	0.0255
105	All	25	5.110	1.07	5.475	0.0150	0.0150
108	All	25	1.310	1.07	1.404	0.0038	0.0038
114	All	25	14.280	1.07	15.300	0.0419	0.0419
133	1	25	0.300	1.14	0.342	0.0009	0.0009
138	1	25	0.050	1.06	0.053	0.0001	0.0001
138	2	25	0.380	1.06	0.404	0.0011	0.0011
142	All	25	0.490	1.07	0.525	0.0014	0.0014
186	All	25	2.370	1.07	2.539	0.0070	0.0070
257	1	25	2.000	1.14	2.279	0.0062	0.0062
282	1	25	1.010	1.14	1.151	0.0032	0.0032
322	1	25	1.480	1.07	1.586	0.0043	0.0043
323	1	25	11.130	1.21	13.436	0.0368	0.0368
329	1	51	0.680	0.94	0.639	0.0017	0.0036
329	3	51	0.980	1.00	0.980	0.0027	0.0055
329	4	51	1.410	1.00	1.410	0.0039	0.0079
329	5	51	1.340	1.00	1.340	0.0037	0.0075
329	6	51	1.350	1.00	1.350	0.0037	0.0075
329	8	51	0.000	0.94	0.000	0.0000	0.0000
329	9	51	0.000	0.94	0.000	0.0000	0.0000
329	10	51	0.010	1.00	0.010	0.0000	0.0001
329	11	51	0.020	1.00	0.020	0.0001	0.0001
346	All	25	2.870	1.07	3.075	0.0084	0.0084
360	1	27	8.140	1.14	9.274	0.0254	0.0274
360	2	27	8.150	1.14	9.285	0.0254	0.0275
360	3	27	8.090	1.14	9.217	0.0253	0.0273
360	4	27	0.010	1.07	0.011	0.0000	0.0000
360	6	27	0.010	1.07	0.011	0.0000	0.0000
360	8	27	0.010	1.07	0.011	0.0000	0.0000
372	1	25	3.290	1.07	3.525	0.0097	0.0097
372	2	25	0.015	1.08	0.016	0.0000	0.0000

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	Growth Factor	2022 VOC Emissions (tons/year)	2022 VOC Emissions (tons/day)	2022 VOC Summer Emissions (tons/day)
372	3	25	0.015	1.00	0.015	0.0000	0.0000
372	4	25	0.000	1.00	0.000	0.0000	0.0000
372	5	25	0.010	1.00	0.010	0.0000	0.0000
372	6	25	0.000	1.14	0.000	0.0000	0.0000
372	7	25	0.000	1.07	0.000	0.0000	0.0000
372	8	25	0.000	1.14	0.000	0.0000	0.0000
372	9	25	0.000	1.07	0.000	0.0000	0.0000
372	10	25	0.120	1.14	0.137	0.0004	0.0004
372	11	25	0.000	1.15	0.000	0.0000	0.0000
372	12	25	0.000	1.15	0.000	0.0000	0.0000
372	13	25	0.030	1.15	0.034	0.0001	0.0001
391	1	27	8.550	1.14	9.741	0.0267	0.0288
391	2	27	8.490	1.14	9.673	0.0265	0.0286
391	3	27	8.520	1.14	9.707	0.0266	0.0287
391	4	27	0.010	1.07	0.011	0.0000	0.0000
391	5	27	0.010	1.07	0.011	0.0000	0.0000
391	7	27	0.010	1.00	0.010	0.0000	0.0000
393	1	27	3.875	0.94	3.640	0.0100	0.0108
393	2	27	3.881	0.94	3.645	0.0100	0.0108
393	3	27	0.005	1.00	0.005	0.0000	0.0000
393	4	27	0.006	1.00	0.006	0.0000	0.0000
393	5	27	0.276	0.94	0.259	0.0007	0.0008
393	6	27	0.137	0.94	0.129	0.0004	0.0004
393	7	27	0.050	1.00	0.050	0.0001	0.0001
395	1	25	0.000	1.06	0.000	0.0000	0.0000
395	6	25	24.000	1.06	25.543	0.0700	0.0700
395	7	25	0.080	1.00	0.080	0.0002	0.0002
395	5	25	5.130	1.07	5.496	0.0151	0.0151
402	1	25	0.000	1.07	0.000	0.0000	0.0000
402	2	25	0.070	1.07	0.075	0.0002	0.0002
402	3	25	0.010	1.08	0.011	0.0000	0.0000
402	4	25	0.000	1.00	0.000	0.0000	0.0000
402	5	25	0.340	1.15	0.391	0.0011	0.0011
402	6	25	3.640	1.15	4.186	0.0115	0.0115
402	7	25	0.210	1.00	0.210	0.0006	0.0006

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	Growth Factor	2022 VOC Emissions (tons/year)	2022 VOC Emissions (tons/day)	2022 VOC Summer Emissions (tons/day)
402	8	25	0.110	1.15	0.127	0.0003	0.0003
404	1	25	0.390	1.07	0.418	0.0011	0.0011
423	1	37	0.110	0.94	0.103	0.0003	0.0004
423	2	37	0.080	0.94	0.075	0.0002	0.0003
423	3	37	0.060	0.94	0.056	0.0002	0.0002
468	1	25	7.530	1.14	8.579	0.0235	0.0235
473	All	25	6.630	1.07	7.104	0.0195	0.0195
475	All	25	1.360	1.07	1.457	0.0040	0.0040
510	1	25	0.250	1.14	0.285	0.0008	0.0008
531	1	25	0.420	1.14	0.479	0.0013	0.0013
533	1	80	0.340	1.00	0.340	0.0009	0.0030
533	2	80	0.020	1.00	0.020	0.0001	0.0002
533	3	80	20.320	1.00	20.320	0.0557	0.1781
533	4	80	20.980	1.00	20.980	0.0575	0.1839
533	7	80	0.000	1.00	0.000	0.0000	0.0000
533	8	80	0.010	1.00	0.010	0.0000	0.0001
533	9	80	0.500	1.00	0.500	0.0014	0.0044
533	10	80	0.000	1.00	0.000	0.0000	0.0000
546	1	25	0.010	1.07	0.011	0.0000	0.0000
555	1	25	1.630	1.14	1.857	0.0051	0.0051
558	1	25	1.140	1.07	1.221	0.0033	0.0033
564	1	25	0.500	1.14	0.570	0.0016	0.0016
569	1	25	3.200	1.07	3.429	0.0094	0.0094
587	All	25	7.430	1.07	7.961	0.0218	0.0218
588	All	25	8.090	1.07	8.668	0.0237	0.0237
593	C01	25	0.185	1.14	0.211	0.0006	0.0006
593	C02	25	0.180	1.14	0.205	0.0006	0.0006
593	C03	25	0.188	1.14	0.214	0.0006	0.0006
593	C04	25	0.163	1.14	0.186	0.0005	0.0005
593	C05	25	0.121	1.14	0.138	0.0004	0.0004
593	E03	25	19.201	1.14	21.875	0.0599	0.0599
593	E105	25	0.276	1.14	0.314	0.0009	0.0009
593	E106	25	0.000	1.14	0.000	0.0000	0.0000
593	E110	25	0.000	1.14	0.000	0.0000	0.0000
593	E111	25	0.000	1.14	0.000	0.0000	0.0000

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	Growth Factor	2022 VOC Emissions (tons/year)	2022 VOC Emissions (tons/day)	2022 VOC Summer Emissions (tons/day)
593	E145	25	0.000	1.08	0.000	0.0000	0.0000
593	E146	25	0.000	1.08	0.000	0.0000	0.0000
593	E147	25	0.000	1.08	0.000	0.0000	0.0000
593	E148	25	0.000	1.08	0.000	0.0000	0.0000
593	E153	25	0.000	1.08	0.000	0.0000	0.0000
593	E154	25	0.000	1.14	0.000	0.0000	0.0000
593	G33	25	0.000	1.00	0.000	0.0000	0.0000
593	G34	25	0.001	1.00	0.001	0.0000	0.0000
593	Z01	25	0.000	1.14	0.000	0.0000	0.0000
597	All	25	5.640	1.07	6.043	0.0166	0.0166
605	1	25	0.510	1.14	0.581	0.0016	0.0016
606	1	25	0.330	1.14	0.376	0.0010	0.0010
616	1	25	0.240	1.14	0.273	0.0007	0.0007
617	1	25	11.710	1.07	12.546	0.0344	0.0344
621	1	25	0.680	1.14	0.775	0.0021	0.0021
627	1	25	1.460	1.14	1.663	0.0046	0.0046
630	1	25	1.510	1.14	1.720	0.0047	0.0047
632	1	25	0.110	1.14	0.125	0.0003	0.0003
633	1	25	0.330	1.14	0.376	0.0010	0.0010
634	All	25	0.800	1.07	0.857	0.0023	0.0023
641	1	25	0.510	1.14	0.581	0.0016	0.0016
652	A01	27	9.320	1.00	9.320	0.0255	0.0276
652	A02	27	10.940	1.00	10.940	0.0300	0.0324
652	A03	27	0.010	1.07	0.011	0.0000	0.0000
697	1	25	3.290	1.14	3.748	0.0103	0.0103
726	All	25	0.020	1.07	0.021	0.0001	0.0001
754	All	25	18.860	1.07	20.207	0.0554	0.0554
755	1	25	0.360	1.14	0.410	0.0011	0.0011
775	1	25	0.260	1.14	0.296	0.0008	0.0008
777	All	25	0.030	1.07	0.032	0.0001	0.0001
788	1	25	0.180	1.14	0.205	0.0006	0.0006
807	All	25	22.070	1.07	23.646	0.0648	0.0648
825	1	25	10.600	1.14	12.076	0.0331	0.0331
859	All	25	22.250	1.07	23.839	0.0653	0.0653
868	All	25	1.920	1.07	2.057	0.0056	0.0056

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	Growth Factor	2022 VOC Emissions (tons/year)	2022 VOC Emissions (tons/day)	2022 VOC Summer Emissions (tons/day)
869	1	25	0.340	1.14	0.387	0.0011	0.0011
974	All	25	4.820	1.07	5.164	0.0141	0.0141
1055	All	25	10.860	1.07	11.636	0.0319	0.0319
1087	All	25	5.660	1.07	6.064	0.0166	0.0166
1149	All	25	7.300	1.07	7.821	0.0214	0.0214
1500	All	25	0.790	1.07	0.846	0.0023	0.0023
1501	1	25	0.230	1.14	0.262	0.0007	0.0007
1513	1	25	18.850	1.00	18.850	0.0516	0.0516
1513	3	25	18.950	1.00	18.950	0.0519	0.0519
1513	5	25	17.630	1.00	17.630	0.0483	0.0483
1513	7	25	18.770	1.00	18.770	0.0514	0.0514
1513	9	25	0.040	1.09	0.044	0.0001	0.0001
1513	10	25	0.040	1.09	0.044	0.0001	0.0001
1513	12	25	0.010	1.06	0.011	0.0000	0.0000
1513	13	25	0.010	1.06	0.011	0.0000	0.0000
1513	14	25	0.000	1.07	0.000	0.0000	0.0000
1513	15	25	0.000	1.07	0.000	0.0000	0.0000
1513	16	25	0.000	1.14	0.000	0.0000	0.0000
1516	All	25	0.940	1.07	1.007	0.0028	0.0028
1520	A01,2	45	10.800	1.00	10.800	0.0296	0.0533
1520	A03,4	45	10.900	1.00	10.900	0.0299	0.0538
1520	A05	45	0.150	1.07	0.161	0.0004	0.0008
1520	A06	45	0.030	1.07	0.032	0.0001	0.0002
1520	A07	45	0.120	1.07	0.129	0.0004	0.0006
1522	1	25	0.400	1.14	0.456	0.0012	0.0012
1524	1	25	0.180	1.14	0.205	0.0006	0.0006
1550	A01,2	31	12.060	1.00	12.060	0.0330	0.0410
1550	A03,4	31	11.650	1.00	11.650	0.0319	0.0396
1550	A05	31	0.030	1.14	0.034	0.0001	0.0001
1550	A06	31	0.010	1.00	0.010	0.0000	0.0000
1569	All	25	0.250	1.07	0.268	0.0007	0.0007
1584	A01	30	21.320	1.00	21.320	0.0584	0.0701
1584	A03	30	22.480	1.00	22.480	0.0616	0.0739
1584	A05	30	0.330	1.07	0.354	0.0010	0.0012
1584	A06	30	0.000	1.07	0.000	0.0000	0.0000

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	Growth Factor	2022 VOC Emissions (tons/year)	2022 VOC Emissions (tons/day)	2022 VOC Summer Emissions (tons/day)
1589	All	25	14.810	1.07	15.868	0.0435	0.0435
1590	1	25	5.300	1.14	6.038	0.0165	0.0165
1624	All	25	1.820	1.07	1.950	0.0053	0.0053
9596	All	25	1.400	1.07	1.500	0.0041	0.0041
9603	All	25	0.860	1.07	0.921	0.0025	0.0025
10201	All	25	3.630	1.07	3.889	0.0107	0.0107
15033	1	25	1.190	1.16	1.377	0.0038	0.0038
15193	All	25	21.160	1.07	22.671	0.0621	0.0621
15245	All	25	0.000	1.07	0.000	0.0000	0.0000
15387	All	25	2.790	1.07	2.989	0.0082	0.0082
15409	All	25	8.400	1.07	9.000	0.0247	0.0247
15422	All	25	4.900	1.07	5.250	0.0144	0.0144
15426	All	25	6.970	1.07	7.468	0.0205	0.0205
15487	1	25	0.520	1.14	0.592	0.0016	0.0016
15515	1	25	0.560	1.07	0.600	0.0016	0.0016
15541	All	25	0.080	1.07	0.086	0.0002	0.0002
15634	All	25	0.040	1.07	0.043	0.0001	0.0001
15839	All	25	5.720	1.07	6.129	0.0168	0.0168
15847	All	25	0.260	1.07	0.279	0.0008	0.0008
15873	All	25	0.340	1.07	0.364	0.0010	0.0010
15876	All	25	10.740	1.07	11.507	0.0315	0.0315
15970	All	25	0.870	1.07	0.932	0.0026	0.0026
15999	All	25	0.030	1.07	0.032	0.0001	0.0001
16101	1	25	0.910	1.07	0.975	0.0027	0.0027
16118	All	25	0.040	1.07	0.043	0.0001	0.0001
16157	All	25	35.020	1.07	37.521	0.1028	0.1028
16172	All	25	0.960	1.07	1.029	0.0028	0.0028
16241	All	25	0.070	1.07	0.075	0.0002	0.0002
16258	All	25	0.130	1.07	0.139	0.0004	0.0004
16290	All	25	0.330	1.07	0.354	0.0010	0.0010
16295	All	25	2.010	1.07	2.154	0.0059	0.0059
16300	All	25	1.040	1.07	1.114	0.0031	0.0031
16304	All	25	0.510	1.07	0.546	0.0015	0.0015
16376	All	25	27.570	1.07	29.539	0.0809	0.0809
16452	1	25	0.920	1.07	0.986	0.0027	0.0027

Facility ID	Emission Unit ID	Summer Proportion (%)	2017 VOC Emissions (tons/year)	Growth Factor	2022 VOC Emissions (tons/year)	2022 VOC Emissions (tons/day)	2022 VOC Summer Emissions (tons/day)
16539	All	25	5.320	1.07	5.700	0.0156	0.0156
16665	All	25	0.820	1.07	0.879	0.0024	0.0024
16673	All	25	0.610	1.07	0.654	0.0018	0.0018
16684	All	25	0.670	1.07	0.718	0.0020	0.0020
16706	All	25	0.160	1.07	0.171	0.0005	0.0005
16925	1	25	0.000	1.07	0.000	0.0000	0.0000
16948	All	25	10.870	1.07	11.646	0.0319	0.0319
17220	All	25	4.410	1.07	4.725	0.0129	0.0129
17272	All	25	0.030	1.07	0.032	0.0001	0.0001
17286	All	25	4.280	1.07	4.586	0.0126	0.0126
17347	All	25	1.670	1.07	1.789	0.0049	0.0049
17439	All	25	0.160	1.07	0.171	0.0005	0.0005
17716	All	25	3.690	1.07	3.954	0.0108	0.0108
17749	All	25	0.170	1.07	0.182	0.0005	0.0005
17771	All	25	0.540	1.07	0.579	0.0016	0.0016
17802	All	25	5.570	1.07	5.968	0.0164	0.0164
17855	All	25	0.170	1.07	0.182	0.0005	0.0005
17913	All	25	0.010	1.07	0.011	0.0000	0.0000
17918	All	25	0.000	1.07	0.000	0.0000	0.0000
AP400	4	27	1.800	0.00	0.000	0.0000	0.0000
TOTAL			**939.83**		**998.08**	**2.73**	**3.12**