

Ontario International Airport Administration Offices
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June 2, 2025

Elaine Shen, Planning, Rule Development & Implementation Manager, ISR Rules &
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South Coast Air Quality Management District
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Dear Dr. Shen:

Ontario International Airport (ONT or Airport) submits this annual progress report on the status of its on-Airport ground support equipment (GSE) consistent with the 2019 Memorandum of Understanding (MOU) entered into by the South Coast Air Quality Management District (AQMD) and the Airport, acting by and through the Ontario International Airport Authority (OIAA) in its capacity as the proprietor and certificated operator of ONT. The purpose of this annual progress report is to provide information on the MOU's GSE measure, which stipulates that all GSE on the Airport "associated with commercial operations achieve a fleet average NO_x emission factor of 2.2 and 1.0 g/bhp-hr by January 1 of 2023 and 2031, respectively." Since the execution of the MOU, the Airport has been working with its tenants to make progress towards the targets identified in the MOU through the accelerated turnover to cleaner equipment.

Consistent with MOU Attachment A (specifically Section III.B.1 therein), the Airport's annual progress report includes a list of GSE that is subject to the MOU's commitment, coupled with the required equipment-specific information. Please see Table 1: 2024 GSE MOU Reporting Data included with this transmittal. The emissions inventory calculations are provided in Table 2: 2024 GSE Emissions, and the equipment emission factors are provided in Table 3: 2024 GSE Fleet Average Emission Factor. A summary of the GSE inventory in the 2017 baseline and 2024 fleet is provided in Table 4: ONT 2017 and 2024 GSE Inventory. Further information on these topics is provided below.

CALCULATION METHODOLOGIES

DATA COLLECTION METHODOLOGY

The GSE inventory was developed based on tenant-reported updates to annual equipment inventory information. Tenants provided GSE specifications; reported dates and destinations of equipment changes; and, in cases where data was available, reported equipment activity data from hour meter readings. Annual activity data was derived from the OFFROAD2017 database when activity hours were not reported by the tenants.

The scope of the MOU covers GSE that operates on Airport property. There is one off-Airport operator that operates GSE temporarily during the peak holiday season on Airport property. For purposes of this report and based on the Airport's current understanding of the holiday activities, activity data from these GSE was prorated based on approximately 1.5 months of on-site use.

GSE that is licensed for on-road use is not included in the scope of the MOU's GSE reporting. Further, non-electric GSE with power ratings less than or equal to 25 horsepower (HP) are exempt from the California Air Resources Board's in-use offroad diesel-fueled (ORD) fleets and large spark-ignition (LSI) fleets regulations, upon which the MOU's GSE measure is predicated. As such, these GSE are also not included in the overall fleet average performance level target calculation.

EMISSIONS INVENTORY CALCULATION

In July 2021, the methodology for calculating GSE emissions was modified as requested by AQMD to incorporate the latest emission standards for gasoline and liquefied petroleum gas (LPG) equipment based on existing, adopted regulations for LSI equipment. Revisions to the methodology were implemented as of 2021 and remain unchanged for the 2024 progress report calculation methodology. The 2024 progress report uses updated gasoline/LPG emission factors, deterioration rates, fuel correction factors, and load factors provided by AQMD.

Activity levels for the 2024 reporting year were sourced from the OFFROAD2017 dataset, except in instances where the GSE operator provided hours of operation based on hour meter readings. AQMD provided a standardized activity level approach to employ for the 2024 emissions inventory, as described below:

For each GSE, activity shall be determined using the order of operations below:

1. Use actual operating hours from the tenant, if provided. If the tenant provided hours only for the prior year, use those hours for the reporting year.
2. Using OFFROAD model defaults, if the same model year (MY) and HP are available for both years from the OFFROAD model, use the reporting year operating hours, unless there is a significant difference in hours between the two years (i.e., because of low population). If the difference is greater than 25%, use the prior year's operating hours for the reporting year.
3. If default average operating hours for the matching GSE category from the OFFROAD model results are available for the prior year but are not available for the current year, use the same operating hours from the prior year for the reporting year.
4. If the exact match does not exist in the OFFROAD model, use the following prioritization:

- a. If a match exists in other fuel types for the same GSE-type, MY, and HP bin, use the average operating hours from this match.
 - b. If a match exists in other HP bins for the same GSE-type, fuel, and MY, use the average operating hours from this match (using closest HP bin match).
 - c. If a match exists in other MY for the same GSE-type, fuel, and HP bin, use the average operating hours from this match (using closest MY match).
 - i. The match should be reasonable. For example, a 1999 MY forklift should not be using a 2010 MY forklift as the offroad model surrogate.
 - d. If a close match exists in any combination of the three parameters (fuel, MY, and HP bin) for the same GSE-type, use the average operating hours from this match.
5. If the resulting hours from Step #4 are not reasonable, continue to search previous calendar years' data in OFFROAD2017 until a reasonable match is found (i.e., 2020, then 2019, then 2018, etc.) or review OFFROAD2021 until a reasonable match is found.

Furthermore, to account for on-site utilization, activity levels were prorated based on the date that each piece of pertinent equipment was added or removed from the Airport, provided that the activity levels reasonably represent a full year of GSE activity.

EMISSION FACTOR CALCULATION

The NO_x emission factor fleet average is calculated as a straight average of emission factors derived from the OFFROAD2017 database for San Bernardino County. Emission factors were derived from the database for calendar year (CY) 2024 and matched for each piece of equipment by GSE-type, fuel type, MY, and HP bin. If an exact MY and HP bin match was not available for CY 2024, previous calendar years were reviewed for an exact MY and HP bin match. Where an exact MY and/or HP bin match did not exist for any calendar year in OFFROAD2017, an alternate MY/HP bin combination within the fuel type, if possible, or within another fuel type, was selected to look up emission factors for CY 2024. Such combinations were selected based on what would most accurately represent the specific equipment. Lastly, the selected OFFROAD2017 emission factor was compared against the NO_x emission factor reported in the first year the specific unit was reported. If the percentage difference for the same GSE is greater than or equal to 25%, the first reporting year emission factor was used. MY-specific emission factors from OFFROAD2017 are derived by dividing total emissions by the total annual HP-hours and GSE-type load factor.

PERFORMANCE LEVEL SUMMARY

By the end of 2023, ONT's NO_x fleet average emission factor for GSE operating on Airport property was 2.62 g/bhp-hr, an increase from 2.43 g/bhp-hr at the end of 2022. Based on the make-up of the GSE fleet at the end of 2024, the NO_x fleet average emission factor decreased to 2.42 g/bhp-hr.

The Airport was able to improve its performance level in 2020, 2021, 2022, and 2024. In 2024, thirty-three (33) electric GSE were introduced to the ONT fleet, and sixteen (16) GSE with MY older than 2010 were retired or relocated to outside of the South Coast Air Basin. For more details on the GSE, please refer to the attached Equipment Summary Tables.

At the conclusion of 2024, the NOx fleet average emission factor remains above the 2.2 g/bhp-hr performance level target established for January 1, 2023. However, the Airport is actively working to close this gap and remains committed to achieving compliance as soon as feasible. The Airport is focused on accelerating the retirement or replacement of the oldest and highest-emitting GSE, which is vital to making near-term progress towards lowering the Airport's fleet average emission factor.

Moreover, the Airport continues to strengthen its engagement with its tenants to align on a path forward. These ongoing communications are focused on identifying specific equipment to be upgraded or decommissioned, and establishing a clear, actionable timeline for achieving the performance targets for both 2023 and 2031. As outlined in greater detail below, this collaborative approach is expected to result in measurable progress towards compliance with the MOU requirements and reflects the Airport's continued prioritization of meeting environmental goals.

OIAA PROGRESS AND ACHIEVEMENTS

COLLABORATION AND COMMUNICATION WITH TENANTS

In CY 2024, the Airport worked closely with its tenants to obtain commitments to improve their GSE fleets, focusing on the oldest, least clean combustion GSE. As part of this effort, the Airport initiated discussion with the eight tenants that were in possession of the oldest GSE present at the Airport (Tier 0/1 diesel and MY <=2000 gasoline/LPG/propane). This communication included an identification of these targeted units and a request for plans to remove or replace them. The Airport received plans from five tenants, which facilitated the removal of eight older units in CY 2024. OIAA continues to engage with tenants on the removal of the oldest GSE, leveraging compliance mechanisms established in the recently approved GSE Motor Vehicle Operating Permit (MVOP) program. These mechanisms are further discussed below.

In addition, OIAA continues to engage with its off-airport tenant to better understand operations and ensure the most accurate information is reported in the annual MOU report. Following several team discussions, OIAA staff conducted a site visit at the off-airport tenant's facility in March 2025. This visit facilitated discussion between the tenant's staff and OIAA staff to better understand how their holiday season functions and how GSE are tracked between on- and off-airport operations. As a result, additional fleet data for the tenant's on-airport use of off-airport GSE was incorporated into the CY 2024 MOU Annual Report, improving data accuracy and strengthening the relationship with the tenant and the understanding of their operations.

OIAA's Chief Executive Officer, Atif Elkadi, regularly highlights the importance of fleet compliance through a recurring agenda item at the monthly meetings of the Airport and Airline Affairs Committee (AAAC). The AAAC is comprised of OIAA senior staff and airline senior representatives at ONT and meets monthly on various financial and operational topics to identify key Airport needs.

GSE MVOP PROGRAM APPROVAL

The Airport's GSE MVOP program was approved by the OIAA Commission on September 26, 2024.¹ The GSE MVOP program was developed to establish robust, ongoing tracking of GSE on the Airport's premises, while significantly enhancing the consistency and accuracy of annual reporting. Since its approval, the Airport has taken proactive steps to implement the program in close coordination with tenants to ensure that all GSE operating on the airfield are properly permitted and visibly identified with decals.

Additionally, this program includes targeted financial incentives to encourage tenants to replace and/or eliminate older GSE by reducing registration fees for clean equipment.

Alongside these positive incentives, the program also provides the Airport with enforcement mechanisms to ensure accountability. This includes allowing the Airport to impose discretionary penalties based on a tenant's failure to adhere to the program's registration and reporting requirements, and/or failure to achieve reasonable progress in its fleet composition. Collectively, these measures highlight the Airport's strong commitment to emission reductions and establish procedures for effective program oversight.

ELECTRIFICATION INFRASTRUCTURE PLANNING UPDATES

In tandem with the GSE MVOP program's successful rollout, the OIAA completed the development of the Zero Emission Vehicle (ZEV) Infrastructure Implementation Plan in Q2 2024, which identified the spatial layout for electric ground support equipment (eGSE) chargers at Terminals 1, 2, and 4. This plan established a critical foundation for the subsequent power assessment initiated in Q1 2025, as outlined later in this document.

By Q3 2024, OIAA also finalized the Utility Infrastructure Plan (UIP) and held multiple Technical Working Group meetings with Southern California Edison (SCE) to rigorously evaluate and review the power needs identified in the UIP. These collaborative and strategic efforts were key to launching the Method of Service study in 2025, also further elaborated upon below.

LOOKING AHEAD

FUTURE TENANT ENGAGEMENT

Going forward, OIAA will be notified of any GSE movement on or off-Airport property per GSE MVOP program guidelines, which will serve to ensure that the Airport is kept abreast of all fleet changes. The improved oversight of tenant fleets is expected to streamline reporting for subsequent annual reporting requirements and allow the Airport to better determine projections towards the MOU targets.

To maintain ongoing compliance with the GSE MVOP program requirements, an audit will be conducted in Fall 2025 to confirm that all GSE are permitted appropriately with the Airport. If unpermitted GSE is identified during the audit, a formal notice will be issued, and a penalty fee

¹ OIAA Commission Meeting Agenda. September 2024. Available at: https://www.flyontario.com/sites/default/files/2024-09/2024-0926_packet_final_-_website.pdf.

will be assessed. This audit will be formally conducted on an annual basis, with ongoing, informal monitoring carried out as needed. Airfield operations staff have been informed of the program and its decal requirements and instructed to remain vigilant for any unpermitted GSE or other violations during their routine duties.

To drive progress towards the MOU targets, the Airport will continue to engage with its tenants to obtain commitments to improve their GSE fleets. The GSE MVOP program requires each tenant to individually meet the Airport's MOU 2023 and 2031 targets. Following approval of the GSE MVOP program, OIAA notified the seven tenants with fleets that are above the 2.2 g/bhp-hr NO_x fleet average emission factor target that they are found to be in violation of requirements established in the program. The Airport requested that these tenants provide a formal, written improvement plan to meet the 2.2 g/bhp-hr target, including details on the turnover of the oldest GSE and projected timelines, prioritizing changes in 2025, as feasible.

ELECTRIFICATION INFRASTRUCTURE PLANNING

As the Airport evaluates its long-term planning goals and objectives, it continues to study the infrastructure needed to support on-site electrification, including the transition to eGSE. To support this transition, the Airport initiated a power assessment in Q1 2025 to inform the engineering design for eGSE charging infrastructure at Terminals 1, 2, and 4, targeted for construction in 2026 and 2027. Currently, Terminals 1, 2, and 4 serve passengers, cargo, and all international arrivals. The proposed project includes the installation of the following chargers:

- Terminal 1: four (4) 80kW 16-port chargers
- Terminal 2: seven (7) 40kW dual-port chargers and one (1) 80kW 8-port charger
- Terminal 4: eight (8) 40kW dual-port chargers and one (1) 80kW 8-port charger

In Q2 2025, the Airport also initiated a Method of Service study with SCE to evaluate the feasibility of adding a second substation in the northeast quadrant of the Airport. This substation would support upcoming ONT facilities and provide critical redundancies. These infrastructure upgrades will enable further implementation of ZEV infrastructure, such as fleet charging at the terminals.

Both initiatives are critical to the ongoing transition of the on-airport fleet to electric equipment, wherever feasible. As the demand for eGSE continues to grow, a clear understanding of current electrical infrastructure and the potential for future expansion is essential. These efforts will help identify capacity limitations, mitigate the risk of power shortfalls, and provide the necessary foundation for long-term electrification. By proactively addressing infrastructure needs, these initiatives directly support the Airport's environmental goals, operational efficiency, and fulfillment of the MOU targets.

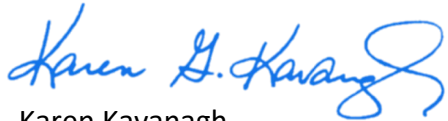
FINAL THOUGHTS

As OIAA's Executive Vice President, I will ensure ongoing collaboration with AQMD will be maintained through regular communication regarding the status and progress towards achieving the MOU targets. OIAA remains committed to sustaining its collaborative efforts with the airlines, tenants, and AQMD. Significant measures have already been implemented at ONT, and

the Airport will continue working with stakeholders to meet the fleet average performance targets as soon as feasibly possible.

Please feel free to contact me at (909) 544-5427 or kkavanagh@flyontario.com with questions regarding this report. Thank you for your consideration and partnership in pursuing viable clean air initiatives in the airport sector.

Sincerely,

A handwritten signature in blue ink, reading "Karen G. Kavanagh". The signature is fluid and cursive, with the first name "Karen" and last name "Kavanagh" clearly legible, and a middle initial "G." in between.

Karen Kavanagh

Executive Vice President, Corporate Strategy & Performance
Ontario International Airport Authority

TABLES

Table 1. 2024 Ground Support Equipment (GSE) MOU Reporting Data
Ontario Airport MOU
Ontario, California

Unit #	MOU Schedule No. 1. Obligations												
	III.B.1								III.B.2				
	III.B.1.a	III.B.1.b	III.B.1.c	III.B.1.d	III.B.1.e		III.B.1.f	III.B.1.g	--	--	III.B.2.a	III.B.2.b	III.B.2.c
	Equipment ID ¹	Airline GSE Type ¹	Fuel Type ¹ (Electric, Diesel, Propane, Gasoline)	Engine Model Year ¹	Engine Power Rating ¹	Engine Power Rating Units ¹	Engine Tier Level ¹ (for diesel engines)	Default Activity Level - hrs/yr of engine operation or annual mileage ²	Equipment Sold or Relocated? ¹	Date of Status Change ¹	If relocated within South Coast, relocation destination airport ¹	Date of Relocation ¹	Estimated Projected Usage Hours ¹
1	ATI601	Air Conditioner	Diesel	1998	100	HP	Tier 1	492	--	--	--	--	--
2	GS3384	Lift	Gasoline	2018	75	HP	--	378	--	--	--	--	--
3	JLG600AJ	Lift	Gasoline	2018	84	HP	--	378	--	--	--	--	--
4	GS4390	Lift	Gasoline	2013	75	HP	--	225	--	--	--	--	--
5	558	Baggage Tug	Gasoline	1995	107	HP	--	1,095	--	--	--	--	--
6	607	Baggage Tug	Gasoline	1997	107	HP	--	730	--	--	--	--	--
7	854	Baggage Tug	Gasoline	1997	107	HP	--	730	--	--	--	--	--
8	855	Baggage Tug	Gasoline	1997	107	HP	--	730	--	--	--	--	--
9	856	Baggage Tug	Gasoline	1996	107	HP	--	913	--	--	--	--	--
10	1803	Belt Loader	Gasoline	2001	100	HP	--	548	--	--	--	--	--
11	1874	Belt Loader	Gasoline	2001	100	HP	--	548	--	--	--	--	--
12	3132	Baggage Tug	Gasoline	2003	107	HP	--	867	--	--	--	--	--
13	3622	Aircraft Tug	Diesel	2007	100	HP	Tier 3	335	--	--	--	--	--
14	3638	Belt Loader	Gasoline	2007	100	HP	--	639	--	--	--	--	--
15	5380	Ground Power Unit	Diesel	2016	175	HP	Tier 4 Final	730	--	--	--	--	--
16	5423	Air Start Unit	Diesel	2016	425	HP	Tier 4 Final	84	--	--	--	--	--
17	5603	Baggage Tug	Gasoline	2016	107	HP	--	876	--	--	--	--	--
18	5646	Baggage Tug	Gasoline	2016	107	HP	--	876	--	--	--	--	--
19	6150	Belt Loader	Gasoline	2016	100	HP	--	812	--	--	--	--	--
20	6151	Belt Loader	Gasoline	2016	100	HP	--	812	--	--	--	--	--
21	6532	Aircraft Tug	Diesel	2017	100	HP	Tier 4 Final	335	--	--	--	--	--
22	1920	Passenger Stand	Gasoline	2000	107	HP	--	243	--	--	--	--	--
23	1718	Other GSE	Gasoline	2000	230	HP	--	492	--	--	--	--	--
24	3629	Other GSE	Gasoline	2001	190	HP	--	492	--	--	--	--	--
25	3045	Lavatory Cart	Gasoline	2021	4	HP	--	183	--	--	--	--	--
26	3484	Lavatory Cart	Gasoline	2021	4	HP	--	183	--	--	--	--	--
27	18897	Aircraft Tug	Diesel	1999	87	HP	Tier 1	335	--	--	--	--	--
28	64573	Air Start Unit	Diesel	2017	380	HP	Tier 4 Final	73	--	--	--	--	--
29	LD576	Belt Loader	Diesel	1993	45	HP	Tier 0	520	--	--	--	--	--
30	LD669	Belt Loader	Diesel	2000	45	HP	Tier 1	520	--	--	--	--	--
31	LG200	Belt Loader	Gasoline	2012	93	HP	--	791	--	--	--	--	--
32	LG248	Belt Loader	Gasoline	1997	93	HP	--	365	--	--	--	--	--
33	PS262	Aircraft Tug	Diesel	1999	87	HP	Tier 1	335	--	--	--	--	--
34	PS340	Aircraft Tug	Diesel	1999	87	HP	Tier 1	335	--	--	--	--	--
35	SM053	Lavatory Cart	Gasoline	2006	5.5	HP	--	183	--	--	--	--	--
36	SN306	Passenger Stand	Gasoline	2015	7.9	HP	--	38	--	--	--	--	--
37	TM302	Cargo Tractor	Gasoline	1990	93	HP	--	222	--	--	--	--	--
38	TR280	Cargo Tractor	Diesel	2007	65	HP	Tier 2	700	--	--	--	--	--
39	TR288	Cargo Tractor	Diesel	2007	65	HP	Tier 2	700	--	--	--	--	--
40	TT126	Cargo Tractor	Gasoline	1998	115	HP	--	183	--	--	--	--	--
41	TY850	Cargo Tractor	Gasoline	2001	95	HP	--	122	--	--	--	--	--
42	TY874	Cargo Tractor	Gasoline	1989	107	HP	--	222	--	--	--	--	--
43	TY876	Cargo Tractor	Gasoline	1991	93	HP	--	222	--	--	--	--	--
44	LG292	Belt Loader	Gasoline	2012	107	HP	--	351	Yes - Sold/Retired	12/12/2024	--	--	--
45	FE495	Service Truck	Gasoline	2015	275	HP	--	842	--	--	--	--	--
46	SM049	Lavatory Cart	Electric	2003	N/A	N/A	--	--	--	--	--	--	--
47	COE230644	Lift	Diesel	2012	67	HP	Tier 4 Interim	375	Yes - Relocated	11/19/2024	LAX (SCAQMD)	11/19/2024	--
48	FG 25ST11	Forklift	LPG	2008	34	HP	--	397	--	--	--	--	--
49	74	Lift	Electric	2021	36	HP	--	0	Yes - Sold/Retired	3/31/2024	--	--	--
50	9	Aircraft Tug	DIESEL	1988	50	HP	Tier 0	0	Yes - Sold/Retired	4/2/2024	--	--	--
51	51	Golf Cart	ELECTRIC	2022	5	HP	--	0	Yes - Sold/Retired	4/3/2024	--	--	--
52	6662 (RENTAL)	Lift	ELECTRIC	2023	6.973314868	HP	--	--	--	--	--	--	--

Table 1. 2024 Ground Support Equipment (GSE) MOU Reporting Data
Ontario Airport MOU
Ontario, California

Unit #	MOU Schedule No. 1. Obligations												
	III.B.1								III.B.2				
	III.B.1.a	III.B.1.b	III.B.1.c	III.B.1.d	III.B.1.e		III.B.1.f	III.B.1.g	--	--	III.B.2.a	III.B.2.b	III.B.2.c
	Equipment ID ¹	Airline GSE Type ¹	Fuel Type ¹ (Electric, Diesel, Propane, Gasoline)	Engine Model Year ¹	Engine Power Rating ¹	Engine Power Rating Units ¹	Engine Tier Level ¹ (for diesel engines)	Default Activity Level - hrs/yr of engine operation or annual mileage ²	Equipment Sold or Relocated? ¹	Date of Status Change ¹	If relocated within South Coast, relocation destination airport ¹	Date of Relocation ¹	Estimated Projected Usage Hours ¹
53	2	Vehicle	GASOLINE	2022	162	HP	--	--	--	--	--	--	--
54	1	Vehicle	GASOLINE	2022	162	HP	--	--	--	--	--	--	--
55	56	Vehicle	GASOLINE	2005	300	HP	--	--	--	--	--	--	--
56	9329	Ground Power Unit	Diesel	2001	152	HP	Tier 1	6	Yes - Sold/Retired	2/6/2024	--	--	--
57	27378	Aircraft Tug	Diesel	2002	140	HP	Tier 1	160	--	--	--	--	--
58	48318	Lavatory Truck	Gasoline	2000	300	HP	--	5	--	--	--	--	--
59	57081	Belt Loader	Electric	2006	10.5	HP	--	614	--	--	--	--	--
60	57082	Belt Loader	Electric	2006	10.5	HP	--	1,289	--	--	--	--	--
61	57083	Belt Loader	Electric	2006	10.5	HP	--	722	--	--	--	--	--
62	750020	Passenger Stand	Gasoline	2001	9	HP	--	2	--	--	--	--	--
63	770047	Baggage Tug	Electric	2005	60	HP	--	177	--	--	--	--	--
64	770315	Baggage Tug	Electric	2010	40	HP	--	220	--	--	--	--	--
65	770317	Baggage Tug	Electric	2010	40	HP	--	510	--	--	--	--	--
66	770318	Baggage Tug	Electric	2010	40	HP	--	245	--	--	--	--	--
67	770324	Baggage Tug	Electric	2011	40	HP	--	399	--	--	--	--	--
68	770325	Baggage Tug	Electric	2011	40	HP	--	230	--	--	--	--	--
69	770326	Baggage Tug	Electric	2011	40	HP	--	205	--	--	--	--	--
70	770328	Baggage Tug	Electric	2011	25	HP	--	204	--	--	--	--	--
71	780048	Passenger Stand	Gasoline	2022	61	HP	--	183	--	--	--	--	--
72	271007	Aircraft Tug	Diesel	2017	74	HP	Tier 4 Final	35	--	--	--	--	--
73	523196	Belt Loader	Gasoline	2000	51	HP	--	28	Yes - Sold/Retired	6/7/2024	--	--	--
74	521693	Belt Loader	Diesel	2000	51	HP	Tier 1	19	Yes - Sold/Retired	4/9/2024	--	--	--
75	14643	Air Start Unit	Diesel	2023	513	HP	Tier 4 Final	60	--	--	--	--	--
76	570193	Belt Loader	Electric	2021	10.5	HP	--	--	--	--	--	--	--
77	570495	Belt Loader	Electric	2021	10.5	HP	--	--	--	--	--	--	--
78	900959	Ground Power Unit	Diesel	2017	155	HP	Tier 4 Final	785	--	--	--	--	--
79	22851	Air Start Unit	Diesel	2009	630	HP	Tier 3	13	--	--	--	--	--
80	22852	Air Start Unit	Diesel	2009	630	HP	Tier 3	4	Yes - Sold/Retired	4/1/2024	--	--	--
81	23194	Cargo Tractor	LPG	2009	75	HP	--	162	--	--	--	--	--
82	23846	Lift	Gasoline	2009	23.5	HP	--	422	--	--	--	--	--
83	28407	Other GSE	Gasoline	2011	13	HP	--	183	--	--	--	--	--
84	33036	Cargo Loader	Diesel	2010	110	HP	Tier 3	485	--	--	--	--	--
85	45739	Cargo Loader	Diesel	2018	74	HP	Tier 4 Final	485	--	--	--	--	--
86	45806	Cargo Loader	Diesel	2019	74	HP	Tier 4 Final	153	Yes - Relocated	4/24/2024	BURR (SCAQMD)	4/24/2024	--
87	47377	Other GSE	Gasoline	2012	51	HP	--	183	--	--	--	--	--
88	47508	Other GSE	Gasoline	2012	51	HP	--	183	--	--	--	--	--
89	48138	Cargo Loader	Diesel	2019	130	HP	Tier 4 Final	485	--	--	--	--	--
90	48153	Cargo Loader	Diesel	2019	74	HP	Tier 4 Final	485	--	--	--	--	--
91	69592	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
92	69593	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
93	69594	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
94	69595	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
95	500955	Belt Loader	Gasoline	2013	12.5	HP	--	793	--	--	--	--	--
96	500963	Belt Loader	Gasoline	2013	12.5	HP	--	793	--	--	--	--	--
97	502544	Lift	Electric	2014	24	HP	--	--	--	--	--	--	--
98	502925	Forklift	Electric	2014	36	HP	--	--	--	--	--	--	--
99	506513	Cargo Tractor	Electric	2015	80	HP	--	--	--	--	--	--	--
100	506514	Cargo Tractor	Electric	2015	80	HP	--	--	--	--	--	--	--
101	506515	Cargo Tractor	Electric	2015	80	HP	--	--	--	--	--	--	--
102	506516	Cargo Tractor	Electric	2015	80	HP	--	--	--	--	--	--	--
103	511605	Air Start Unit	Diesel	2017	543	HP	Tier 4 Final	51	Yes - Relocated	9/12/2024	SBDR (SCAQMD)	9/12/2024	--
104	512014	Other GSE	Gasoline	2017	13	HP	--	183	--	--	--	--	--

Table 1. 2024 Ground Support Equipment (GSE) MOU Reporting Data
Ontario Airport MOU
Ontario, California

Unit #	MOU Schedule No. 1. Obligations												
	III.B.1								III.B.2				
	III.B.1.a	III.B.1.b	III.B.1.c	III.B.1.d	III.B.1.e		III.B.1.f	III.B.1.g	--	--	III.B.2.a	III.B.2.b	III.B.2.c
	Equipment ID ¹	Airline GSE Type ¹	Fuel Type ¹ (Electric, Diesel, Propane, Gasoline)	Engine Model Year ¹	Engine Power Rating ¹	Engine Power Rating Units ¹	Engine Tier Level ¹ (for diesel engines)	Default Activity Level - hrs/yr of engine operation or annual mileage ²	Equipment Sold or Relocated? ¹	Date of Status Change ¹	If relocated within South Coast, relocation destination airport ¹	Date of Relocation ¹	Estimated Projected Usage Hours ¹
105	512015	Other GSE	Gasoline	2017	13	HP	--	183	--	--	--	--	--
106	512639	Cargo Loader	Diesel	2017	74	HP	Tier 4 Final	485	--	--	--	--	--
107	518553	Ground Power Unit	Diesel	2018	155	HP	Tier 4 Final	821	--	--	--	--	--
108	518713	Cargo Loader	Diesel	2019	74	HP	Tier 4 Final	485	--	--	--	--	--
109	518714	Cargo Loader	Diesel	2019	74	HP	Tier 4 Final	462	Yes - Relocated	12/13/2024	SBDR (SCAQMD)	12/13/2024	--
110	518715	Cargo Loader	Diesel	2019	74	HP	Tier 4 Final	485	--	--	--	--	--
111	518716	Cargo Loader	Diesel	2019	74	HP	Tier 4 Final	485	--	--	--	--	--
112	518838	Cargo Tractor	Gasoline	2019	86	HP	--	1,350	--	--	--	--	--
113	518839	Cargo Tractor	Gasoline	2019	86	HP	--	1,350	--	--	--	--	--
114	518840	Cargo Tractor	Gasoline	2019	86	HP	--	1,350	--	--	--	--	--
115	518841	Cargo Tractor	Gasoline	2019	86	HP	--	1,350	--	--	--	--	--
116	518842	Cargo Tractor	Gasoline	2019	86	HP	--	1,350	--	--	--	--	--
117	518843	Cargo Tractor	Gasoline	2019	86	HP	--	1,350	--	--	--	--	--
118	518889	Cargo Tractor	Gasoline	2019	61	HP	--	1,350	--	--	--	--	--
119	518893	Cargo Tractor	Gasoline	2019	61	HP	--	1,350	--	--	--	--	--
120	518894	Cargo Tractor	Gasoline	2019	61	HP	--	1,350	--	--	--	--	--
121	518896	Cargo Tractor	Gasoline	2019	61	HP	--	1,350	--	--	--	--	--
122	518903	Cargo Tractor	Gasoline	2019	61	HP	--	1,350	--	--	--	--	--
123	518908	Cargo Tractor	Gasoline	2019	61	HP	--	1,350	--	--	--	--	--
124	518909	Cargo Tractor	Gasoline	2019	61	HP	--	1,350	--	--	--	--	--
125	518913	Cargo Tractor	Gasoline	2019	61	HP	--	1,350	--	--	--	--	--
126	518914	Cargo Tractor	Gasoline	2019	61	HP	--	1,350	--	--	--	--	--
127	520811	Belt Loader	Gasoline	2019	19	HP	--	811	--	--	--	--	--
128	522891	Ground Power Unit	Diesel	2021	155	HP	Tier 4 Final	794	--	--	--	--	--
129	522892	Ground Power Unit	Diesel	2021	155	HP	Tier 4 Final	794	--	--	--	--	--
130	525515	Other GSE	Electric	2022	14.9	HP	--	--	--	--	--	--	--
131	525516	Other GSE	Electric	2022	14.9	HP	--	--	--	--	--	--	--
132	525517	Other GSE	Electric	2022	14.9	HP	--	--	--	--	--	--	--
133	525518	Other GSE	Electric	2022	14.9	HP	--	--	--	--	--	--	--
134	525976	Ground Power Unit	Diesel	2022	154	HP	Tier 4 Final	793	--	--	--	--	--
135	525980	Ground Power Unit	Diesel	2022	154	HP	Tier 4 Final	793	--	--	--	--	--
136	504698	Air Conditioner	Diesel	2011	130	HP	Tier 3	492	--	--	--	--	--
137	63489	Air Conditioner	Diesel	2006	130	HP	Tier 2	492	--	--	--	--	--
138	25280	Air Start Unit	Diesel	2011	679	HP	Tier 4 Interim	73	--	--	--	--	--
139	41260	Aircraft Tug	Diesel	2015	300	HP	Tier 4 Final	335	--	--	--	--	--
140	22844	Aircraft Tug	Diesel	2008	200	HP	Tier 3	335	--	--	--	--	--
141	507153	Aircraft Tug	Diesel	2015	290	HP	Tier 4 Final	335	--	--	--	--	--
142	22856	Aircraft Tug	Diesel	2008	200	HP	Tier 3	335	--	--	--	--	--
143	57086	Belt Loader	Electric	2004	80	HP	--	--	Yes - Sold/Retired	8/23/2024	--	--	--
144	57089	Belt Loader	Electric	2004	80	HP	--	--	--	--	--	--	--
145	57090	Belt Loader	Electric	2004	80	HP	--	--	--	--	--	--	--
146	57091	Belt Loader	Electric	2004	80	HP	--	--	--	--	--	--	--
147	57092	Belt Loader	Electric	2004	80	HP	--	--	--	--	--	--	--
148	57095	Belt Loader	Electric	2004	80	HP	--	--	--	--	--	--	--
149	507145	Belt Loader	Gasoline	2015	80.1	HP	--	814	--	--	--	--	--
150	57096	Belt Loader	Electric	2004	80	HP	--	--	--	--	--	--	--
151	507146	Belt Loader	Gasoline	2015	80.1	HP	--	814	--	--	--	--	--
152	19787	Cargo Loader	Diesel	2008	125	HP	Tier 3	243	Yes - Sold/Retired	7/1/2024	--	--	--
153	40926	Cargo Loader	Diesel	2011	110	HP	Tier 3	485	--	--	--	--	--
154	52236	Cargo Loader	Diesel	2011	160	HP	Tier 3	485	--	--	--	--	--
155	508187	Cargo Loader	Diesel	2011	160	HP	Tier 3	485	--	--	--	--	--
156	40962	Cargo Loader	Diesel	2011	110	HP	Tier 3	485	--	--	--	--	--

Table 1. 2024 Ground Support Equipment (GSE) MOU Reporting Data
Ontario Airport MOU
Ontario, California

Unit #	MOU Schedule No. 1. Obligations												
	III.B.1								III.B.2				
	III.B.1.a	III.B.1.b	III.B.1.c	III.B.1.d	III.B.1.e		III.B.1.f	III.B.1.g	--	--	III.B.2.a	III.B.2.b	III.B.2.c
	Equipment ID ¹	Airline GSE Type ¹	Fuel Type ¹ (Electric, Diesel, Propane, Gasoline)	Engine Model Year ¹	Engine Power Rating ¹	Engine Power Rating Units ¹	Engine Tier Level ¹ (for diesel engines)	Default Activity Level - hrs/yr of engine operation or annual mileage ²	Equipment Sold or Relocated? ¹	Date of Status Change ¹	If relocated within South Coast, relocation destination airport ¹	Date of Relocation ¹	Estimated Projected Usage Hours ¹
157	40991	Cargo Loader	Diesel	2011	110	HP	Tier 3	485	--	--	--	--	--
158	44109	Cargo Loader	Diesel	2011	110	HP	Tier 3	485	--	--	--	--	--
159	45732	Cargo Loader	Diesel	2011	110	HP	Tier 3	485	--	--	--	--	--
160	514160	Cargo Loader	Diesel	2018	160	HP	Tier 4 Final	485	--	--	--	--	--
161	33428	Cargo Loader	Diesel	2005	102	HP	Tier 2	100	Yes - Sold/Retired	3/15/2024	--	--	--
162	55575	Cargo Loader	Diesel	2011	110	HP	Tier 3	485	--	--	--	--	--
163	46601	Cargo Loader	Diesel	2013	110	HP	Tier 4 Interim	485	--	--	--	--	--
164	69587	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
165	69588	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
166	506404	Cargo Tractor	Gasoline	2015	86	HP	--	1,350	--	--	--	--	--
167	25116	Cargo Tractor	Gasoline	2010	75	HP	--	1,342	--	--	--	--	--
168	69589	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
169	23238	Cargo Tractor	Gasoline	2010	80	HP	--	1,342	--	--	--	--	--
170	506405	Cargo Tractor	Gasoline	2015	86	HP	--	1,350	--	--	--	--	--
171	25117	Cargo Tractor	Gasoline	2010	75	HP	--	1,342	--	--	--	--	--
172	507526	Cargo Tractor	Gasoline	2016	86	HP	--	1,350	--	--	--	--	--
173	25118	Cargo Tractor	Gasoline	2010	75	HP	--	1,342	--	--	--	--	--
174	23239	Cargo Tractor	Gasoline	2010	80	HP	--	1,342	--	--	--	--	--
175	507527	Cargo Tractor	Gasoline	2016	86	HP	--	1,350	--	--	--	--	--
176	512137	Cargo Tractor	Gasoline	2017	86	HP	--	1,349	--	--	--	--	--
177	507528	Cargo Tractor	Gasoline	2016	86	HP	--	1,350	--	--	--	--	--
178	23240	Cargo Tractor	Gasoline	2010	80	HP	--	1,342	--	--	--	--	--
179	506406	Cargo Tractor	Gasoline	2015	86	HP	--	1,350	--	--	--	--	--
180	69590	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
181	512138	Cargo Tractor	Gasoline	2017	86	HP	--	1,349	--	--	--	--	--
182	69591	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
183	23241	Cargo Tractor	Gasoline	2010	80	HP	--	1,342	--	--	--	--	--
184	57117	Cargo Tractor	Gasoline	2004	65	HP	--	1,278	--	--	--	--	--
185	23202	Cargo Tractor	Gasoline	2009	75	HP	--	1,359	--	--	--	--	--
186	507529	Cargo Tractor	Gasoline	2016	86	HP	--	1,350	--	--	--	--	--
187	23243	Cargo Tractor	Gasoline	2010	80	HP	--	1,342	--	--	--	--	--
188	506407	Cargo Tractor	Gasoline	2015	86	HP	--	1,350	--	--	--	--	--
189	509689	Cargo Tractor	Gasoline	2016	86	HP	--	1,350	--	--	--	--	--
190	23244	Cargo Tractor	Gasoline	2010	80	HP	--	1,342	--	--	--	--	--
191	23204	Cargo Tractor	Gasoline	2009	75	HP	--	1,359	--	--	--	--	--
192	25293	Cargo Tractor	Gasoline	2011	79	HP	--	1,341	--	--	--	--	--
193	509690	Cargo Tractor	Gasoline	2016	86	HP	--	1,350	--	--	--	--	--
194	23245	Cargo Tractor	Gasoline	2010	80	HP	--	1,342	--	--	--	--	--
195	506408	Cargo Tractor	Gasoline	2015	86	HP	--	1,350	--	--	--	--	--
196	509691	Cargo Tractor	Gasoline	2016	86	HP	--	1,350	--	--	--	--	--
197	506412	Cargo Tractor	Gasoline	2015	86	HP	--	1,350	--	--	--	--	--
198	509692	Cargo Tractor	Gasoline	2016	86	HP	--	1,021	Yes - Sold/Retired	10/2/2024	--	--	--
199	23246	Cargo Tractor	Gasoline	2010	80	HP	--	1,342	--	--	--	--	--
200	68115	Forklift	LPG	2007	57	HP	--	222	--	--	--	--	--
201	22497	Forklift	Gasoline	2008	57	HP	--	355	Yes - Relocated	11/22/2024	Outside of SCAQMD	11/22/2024	--
202	507425	Ground Power Unit	Diesel	2016	155	HP	Tier 4 Final	730	--	--	--	--	--
203	63363	Service Truck	Diesel	2006	200	HP	Tier 3	834	--	--	--	--	--
204	602632	Other GSE	Gasoline	2015	88	HP	--	186	--	--	--	--	--
205	507150	Other GSE	Gasoline	2016	13	HP	--	92	Yes - Sold/Retired	7/1/2024	--	--	--
206	507151	Service Truck	Gasoline	2016	362	HP	--	841	--	--	--	--	--
207	507152	Service Truck	Gasoline	2016	293	HP	--	841	--	--	--	--	--
208	504622	Service Truck	Gasoline	2014	375	HP	--	846	--	--	--	--	--

Table 1. 2024 Ground Support Equipment (GSE) MOU Reporting Data
Ontario Airport MOU
Ontario, California

Unit #	MOU Schedule No. 1. Obligations												
	III.B.1								III.B.2				
	III.B.1.a	III.B.1.b	III.B.1.c	III.B.1.d	III.B.1.e		III.B.1.f	III.B.1.g	--	--	III.B.2.a	III.B.2.b	III.B.2.c
	Equipment ID ¹	Airline GSE Type ¹	Fuel Type ¹ (Electric, Diesel, Propane, Gasoline)	Engine Model Year ¹	Engine Power Rating ¹	Engine Power Rating Units ¹	Engine Tier Level ¹ (for diesel engines)	Default Activity Level - hrs/yr of engine operation or annual mileage ²	Equipment Sold or Relocated? ¹	Date of Status Change ¹	If relocated within South Coast, relocation destination airport ¹	Date of Relocation ¹	Estimated Projected Usage Hours ¹
209	53697	Aircraft Tug	Diesel	2021	300	HP	Tier 4 Final	335	--	--	--	--	--
210	525616	Belt Loader	Gasoline	2022	80.1	HP	--	811	--	--	--	--	--
211	56569	Other GSE	Diesel	2004	65	HP	Tier 2	492	--	--	--	--	--
212	523098	Other GSE	Diesel	2021	74.2	HP	Tier 4 Final	492	--	--	--	--	--
213	12108	Cargo Loader	Diesel	2021	130	HP	Tier 4 Final	485	--	--	--	--	--
214	62259	Cargo Loader	Diesel	2021	130	HP	Tier 4 Final	485	--	--	--	--	--
215	525150	Cargo Loader	Diesel	2019	23.9	HP	Tier 4 Final	485	--	--	--	--	--
216	525152	Cargo Loader	Diesel	2019	23.9	HP	Tier 4 Final	485	--	--	--	--	--
217	526247	Cargo Loader	Diesel	2023	9	HP	Tier 4 Final	485	--	--	--	--	--
218	69563	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
219	69566	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
220	69567	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
221	69568	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
222	69569	Cargo Tractor	Gasoline	2008	75	HP	--	1,371	--	--	--	--	--
223	69573	Cargo Tractor	Gasoline	2008	75	HP	--	887	Yes - Sold/Retired	8/23/2024	--	--	--
224	524815	Forklift	LPG	2022	59	HP	--	728	--	--	--	--	--
225	524816	Forklift	LPG	2022	59	HP	--	728	--	--	--	--	--
226	524823	Other GSE	Diesel	2020	13.6	HP	Tier 4 Final	492	--	--	--	--	--
227	524824	Other GSE	Diesel	2020	13.6	HP	Tier 4 Final	492	--	--	--	--	--
228	531998	Forklift	Propane	2023	85	HP	--	54	--	--	--	--	--
229	517072	Other GSE	Electric	2018	72	V	--	--	--	--	--	--	--
230	55245	Cargo Tractor	Gasoline	2002	124	HP	--	24	--	--	--	--	--
231	529351	Cargo Loader	Diesel	2023	160	HP	Tier 4 Final	392	--	--	--	--	--
232	507147	Air Start Unit	Diesel	2015	550	HP	Tier 4 Final	58	--	--	--	--	--
233	504411	Forklift	Gasoline	2014	62	HP	--	72	--	--	--	--	--
234	528949	Golf Cart	Gasoline	2023	14	HP	--	95	--	--	--	--	--
235	532753	Other GSE	Gasoline	2022	20.1	HP	--	30	--	--	--	--	--
236	31647	Other GSE	Diesel	1997	265	HP	Tier 1	405	Yes - Sold/Retired	11/1/2024	--	--	--
237	A003491	Cargo Loader	Diesel	2018	100	HP	Tier 4 Final	485	--	--	--	--	--
238	A008003	Belt Loader	Gasoline	1997	150	HP	--	214	Yes - Sold/Retired	8/1/2024	--	--	--
239	A008087	Forklift	Diesel	1989	210	HP	Tier 0	208	Yes - Relocated	9/1/2024	Outside of SCAQMD	9/1/2024	--
240	A009476	Other GSE	Diesel	2019	98	HP	Tier 4 Final	492	--	--	--	--	--
241	A013302	Forklift	LPG	2005	62	HP	--	397	--	--	--	--	--
242	A017195	Cargo Loader	Diesel	2007	100	HP	Tier 3	0	--	--	--	--	--
243	A017196	Cargo Loader	Diesel	2012	100	HP	Tier 4 Interim	0	--	--	--	--	--
244	A017197	Cargo Loader	Diesel	2012	100	HP	Tier 4 Interim	0	Yes - Sold/Retired	9/1/2024	--	--	--
245	A021342	Cargo Loader	Diesel	2011	100	HP	Tier 3	485	--	--	--	--	--
246	A025866	Other GSE	Diesel	2014	225	HP	Tier 4 Final	492	--	--	--	--	--
247	A026991	Other GSE	Diesel	2010	240	HP	Tier 3	492	--	--	--	--	--
248	A027492	Other GSE	Diesel	2016	225	HP	Tier 4 Final	492	--	--	--	--	--
249	A027693	Belt Loader	Diesel	2014	64	HP	Tier 4 Final	520	--	--	--	--	--
250	A027731	Aircraft Tug	Diesel	2013	74	HP	Tier 4 Final	335	--	--	--	--	--
251	A028333	Other GSE	Gasoline	2019	362	HP	--	185	--	--	--	--	--
252	A028384	Other GSE	Diesel	2019	225	HP	Tier 4 Final	492	--	--	--	--	--
253	A028411	Other GSE	Diesel	2018	260	HP	Tier 4 Final	492	--	--	--	--	--
254	A028412	Other GSE	Diesel	2019	260	HP	Tier 4 Final	492	--	--	--	--	--
255	A028486	Other GSE	Diesel	2019	260	HP	Tier 4 Final	492	--	--	--	--	--
256	A028727	Baggage Tug	Gasoline	2019	61	HP	--	877	--	--	--	--	--
257	A028728	Baggage Tug	Gasoline	2019	61	HP	--	877	--	--	--	--	--
258	A028729	Baggage Tug	Gasoline	2019	61	HP	--	877	--	--	--	--	--
259	A028733	Belt Loader	Diesel	2018	74	HP	Tier 4 Final	520	--	--	--	--	--
260	A029107	Ground Power Unit	Diesel	2016	155	HP	Tier 4 Final	730	--	--	--	--	--

Table 1. 2024 Ground Support Equipment (GSE) MOU Reporting Data
Ontario Airport MOU
Ontario, California

Unit #	MOU Schedule No. 1. Obligations												
	III.B.1								III.B.2				
	III.B.1.a	III.B.1.b	III.B.1.c	III.B.1.d	III.B.1.e		III.B.1.f	III.B.1.g	--	--	III.B.2.a	III.B.2.b	III.B.2.c
	Equipment ID ¹	Airline GSE Type ¹	Fuel Type ¹ (Electric, Diesel, Propane, Gasoline)	Engine Model Year ¹	Engine Power Rating ¹	Engine Power Rating Units ¹	Engine Tier Level ¹ (for diesel engines)	Default Activity Level - hrs/yr of engine operation or annual mileage ²	Equipment Sold or Relocated? ¹	Date of Status Change ¹	If relocated within South Coast, relocation destination airport ¹	Date of Relocation ¹	Estimated Projected Usage Hours ¹
261	A029144	Cargo Loader	Diesel	2019	136	HP	Tier 4 Final	485	--	--	--	--	--
262	A029156	Other GSE	Gasoline	2020	350	HP	--	183	--	--	--	--	--
263	A029297	Ground Power Unit	Diesel	2018	155	HP	Tier 4 Final	821	--	--	--	--	--
264	A029298	Aircraft Tug	Diesel	2019	74	HP	Tier 4 Final	335	--	--	--	--	--
265	A029299	Aircraft Tug	Diesel	2019	173	HP	Tier 4 Final	335	--	--	--	--	--
266	A029325	Baggage Tug	Electric	2021	27.03500533	HP	--	0	--	--	--	--	--
267	A029326	Baggage Tug	Electric	2021	27.03500533	HP	--	--	--	--	--	--	--
268	A029393	Baggage Tug	Electric	2021	27.03500533	HP	--	--	--	--	--	--	--
269	A029394	Baggage Tug	Electric	2021	27.03500533	HP	--	--	--	--	--	--	--
270	A029725	Other GSE	Diesel	2018	360	HP	Tier 4 Final	492	--	--	--	--	--
271	A029726	Other GSE	Diesel	2018	225	HP	Tier 4 Final	492	--	--	--	--	--
272	A029872	Lavatory Truck	Gasoline	2018	360	HP	--	1,200	--	--	--	--	--
273	PB01-1	Aircraft Tug	Diesel	2013	100	HP	Tier 4 Interim	168	Yes - Relocated	7/1/2024	Outside of SCAQMD	7/1/2024	--
274	T-36	Aircraft Tug	Diesel	2009	268	HP	Tier 3	0	--	--	--	--	--
275	A029475	Belt Loader	Electric	2023	80	Volts	--	--	--	--	--	--	--
276	A030955	Other GSE	Diesel	2023	225	HP	Tier 4 Final	492	--	--	--	--	--
277	A027287	Other GSE	Diesel	2016	240	HP	Tier 4 Final	65	--	--	--	--	--
278	A029646	Other GSE	Diesel	2016	240	HP	Tier 4 Final	492	--	--	--	--	--
279	A031829	Cargo Loader	Diesel	2023	100	HP	Tier 4 Final	122	--	--	--	--	--
280	A031038	Cargo Loader	Diesel	2020	100	HP	Tier 4 Final	162	--	--	--	--	--
281	A030394	Belt Loader	Electric	2023	80	Volts	--	--	--	--	--	--	--
282	PA61171	Forklift	Electric	2023	80	Volts	--	--	--	--	--	--	--
283	A032418	Other GSE	Diesel	2024	225	HP	Tier 4 Final	42	--	--	--	--	--
284	8281	Air Start Unit	Diesel	1990	430	HP	Tier 0	150	Yes - Relocated	10/26/2024	Outside of SCAQMD	10/26/2024	--
285	AS01	Air Start Unit	Diesel	2018	174	HP	Tier 4 Final	68	--	--	--	--	--
286	BL03	Belt Loader	Gasoline	2017	75	HP	--	807	--	--	--	--	--
287	BL04	Belt Loader	Gasoline	2018	61	HP	--	813	--	--	--	--	--
288	BL05	Belt Loader	Gasoline	2019	64	HP	--	811	--	--	--	--	--
289	BL06	Belt Loader	Gasoline	2018	61	HP	--	813	--	--	--	--	--
290	BL07	Belt Loader	Gasoline	2015	75	HP	--	814	--	--	--	--	--
291	BL08	Belt Loader	Gasoline	2015	75	HP	--	814	--	--	--	--	--
292	CL001	Cargo Loader	Diesel	2019	160	HP	Tier 4 Final	485	--	--	--	--	--
293	CL003	Cargo Loader	Diesel	2019	160	HP	Tier 4 Final	485	--	--	--	--	--
294	CL0100	Cargo Loader	Diesel	2016	130	HP	Tier 4 Final	485	--	--	--	--	--
295	CL0704	Cargo Loader	Diesel	2019	130	HP	Tier 4 Final	485	--	--	--	--	--
296	CL0705	Cargo Loader	Diesel	2019	130	HP	Tier 4 Final	485	--	--	--	--	--
297	CL0745	Cargo Loader	Diesel	2016	130	HP	Tier 4 Final	485	--	--	--	--	--
298	CL1642	Cargo Loader	Diesel	2016	130	HP	Tier 4 Final	485	--	--	--	--	--
299	GP01	Ground Power Unit	Diesel	1999	208	HP	Tier 1	663	Yes - Relocated	8/8/2024	Outside of SCAQMD	8/8/2024	--
300	GP02	Ground Power Unit	Diesel	1999	208	HP	Tier 1	1,095	--	--	--	--	--
301	GP05	Ground Power Unit	Diesel	1994	200	HP	Tier 0	1,095	--	--	--	--	--
302	MTS-4	Cargo Tractor	Gasoline	2016	61	HP	--	1,350	--	--	--	--	--
303	MTS-5	Cargo Tractor	Gasoline	2018	61	HP	--	1,352	--	--	--	--	--
304	MTS-6	Cargo Tractor	Gasoline	2018	61	HP	--	1,352	--	--	--	--	--
305	MTS-7	Cargo Tractor	LPG	2018	175	HP	--	159	--	--	--	--	--
306	MTS-8	Cargo Tractor	Gasoline	2018	61	HP	--	1,352	--	--	--	--	--
307	MTS-17	Cargo Tractor	Gasoline	2017	61	HP	--	1,349	--	--	--	--	--
308	MTS-19	Cargo Tractor	Gasoline	2017	61	HP	--	1,349	--	--	--	--	--
309	MTS-23	Cargo Tractor	LPG	2012	175	HP	--	154	--	--	--	--	--
310	MTS-24	Cargo Tractor	Gasoline	2017	61	HP	--	1,349	--	--	--	--	--
311	MTS-25	Cargo Tractor	Gasoline	2017	61	HP	--	1,349	--	--	--	--	--
312	MTS-26	Cargo Tractor	Gasoline	2018	61	HP	--	1,352	--	--	--	--	--

Table 1. 2024 Ground Support Equipment (GSE) MOU Reporting Data
Ontario Airport MOU
Ontario, California

Unit #	MOU Schedule No. 1. Obligations												
	III.B.1								III.B.2				
	III.B.1.a	III.B.1.b	III.B.1.c	III.B.1.d	III.B.1.e		III.B.1.f	III.B.1.g	--	--	III.B.2.a	III.B.2.b	III.B.2.c
	Equipment ID ¹	Airline GSE Type ¹	Fuel Type ¹ (Electric, Diesel, Propane, Gasoline)	Engine Model Year ¹	Engine Power Rating ¹	Engine Power Rating Units ¹	Engine Tier Level ¹ (for diesel engines)	Default Activity Level - hrs/yr of engine operation or annual mileage ²	Equipment Sold or Relocated? ¹	Date of Status Change ¹	If relocated within South Coast, relocation destination airport ¹	Date of Relocation ¹	Estimated Projected Usage Hours ¹
313	MTS-27	Cargo Tractor	Gasoline	2018	61	HP	--	1,352	--	--	--	--	--
314	MTS-28	Cargo Tractor	Gasoline	2018	61	HP	--	1,352	--	--	--	--	--
315	MTS-29	Cargo Tractor	Gasoline	2018	61	HP	--	1,352	--	--	--	--	--
316	MTS-30	Cargo Tractor	Gasoline	2018	61	HP	--	1,352	--	--	--	--	--
317	MTS-32	Cargo Tractor	Gasoline	2019	64	HP	--	1,350	--	--	--	--	--
318	MTS-33	Cargo Tractor	Gasoline	2019	64	HP	--	1,350	--	--	--	--	--
319	MTS-34	Cargo Tractor	Gasoline	2019	64	HP	--	1,350	--	--	--	--	--
320	MTS-35	Cargo Tractor	Gasoline	2019	64	HP	--	1,350	--	--	--	--	--
321	MTS-36	Cargo Tractor	Gasoline	2019	64	HP	--	1,350	--	--	--	--	--
322	MTS-37	Cargo Tractor	Gasoline	2015	75	HP	--	1,350	--	--	--	--	--
323	MTS-41	Cargo Tractor	Gasoline	2017	75	HP	--	1,349	--	--	--	--	--
324	MTS-42	Cargo Tractor	Gasoline	2017	61	HP	--	1,349	--	--	--	--	--
325	PB02	Aircraft Tug	Diesel	2018	173	HP	Tier 4 Final	335	--	--	--	--	--
326	YG-01	Other GSE	LPG	2010	300	HP	--	1,022	--	--	--	--	--
327	YG-02	Other GSE	LPG	2010	300	HP	--	1,022	--	--	--	--	--
328	YG-03	Other GSE	LPG	2010	300	HP	--	1,022	--	--	--	--	--
329	YG-04	Other GSE	Diesel	2010	300	HP	Tier 3	492	--	--	--	--	--
330	Y1821	Other GSE	Diesel	2020	300	HP	Tier 4 Final	492	--	--	--	--	--
331	Y1829	Other GSE	Diesel	2020	300	HP	Tier 4 Final	492	--	--	--	--	--
332	AS-822	Air Start Unit	Diesel	2022	200	HP	Tier 4 Final	77	--	--	--	--	--
333	2831	Cargo Loader	Diesel	2023	50	HP	Tier 4 Final	485	--	--	--	--	--
334	CL007	Cargo Loader	Diesel	2019	130	HP	Tier 4 Final	485	--	--	--	--	--
335	GP194	Ground Power Unit	Diesel	2023	200	HP	Tier 4 Final	793	--	--	--	--	--
336	GP898	Ground Power Unit	Diesel	2023	200	HP	Tier 4 Final	793	--	--	--	--	--
337	GP11270	Ground Power Unit	Diesel	2014	200	HP	Tier 4 Final	548	--	--	--	--	--
338	SRT029	Ground Power Unit	Diesel	2023	200	HP	Tier 4 Final	293	Yes - Sold/Retired	5/14/2024	--	--	--
339	MTS-9	Cargo Tractor	Diesel	2017	61	HP	Tier 4 Final	700	--	--	--	--	--
340	PB7444	Aircraft Tug	Diesel	2023	300	HP	Tier 4 Final	242	Yes - Sold/Retired	9/20/2024	--	--	--
341	PB01-2	Aircraft Tug	Diesel	2010	300	HP	Tier 3	335	--	--	--	--	--
342	PB04	Aircraft Tug	Diesel	1988	200	HP	Tier 0	222	--	--	--	--	--
343	MXT01	Service Truck	Gasoline	2001	340	HP	--	--	--	--	--	--	--
344	CV-02	Service Truck	Gasoline	2003	175	HP	--	--	--	--	--	--	--
345	PWT-01	Water Truck	Diesel	2000	200	HP	Tier 1	365	--	--	--	--	--
346	LV-01	Lavatory Truck	Diesel	2000	200	HP	Tier 1	365	--	--	--	--	--
347	DST-01	Passenger Stand	Gasoline	1984	160	HP	--	38	--	--	--	--	--
348	G13	Golf Cart	Electric	2010	26.82044179	HP	--	--	--	--	--	--	--
349	G14	Golf Cart	Electric	2010	26.82044179	HP	--	--	--	--	--	--	--
350	G15	Golf Cart	Electric	2010	26.82044179	HP	--	--	--	--	--	--	--
351	AC9003	Air Conditioner	Diesel	1998	325	HP	Tier 1	222	--	--	--	--	--
352	AC8974	Air Conditioner	Diesel	1998	325	HP	Tier 1	222	--	--	--	--	--
353	CL2205	Cargo Loader	Diesel	2023	50	HP	Tier 4 Final	485	--	--	--	--	--
354	PB3015	Aircraft Tug	Diesel	2023	200	HP	Tier 4 Final	145	--	--	--	--	--
355	G01	Golf Cart	Gasoline	2017	8.9	HP	--	22	--	--	--	--	--
356	772	Aircraft Tug	Diesel	2010	110	HP	Tier 3	335	--	--	--	--	--
357	880	Belt Loader	Electric	1995	60	HP	--	--	--	--	--	--	--
358	883	Belt Loader	Electric	1995	60	HP	--	--	--	--	--	--	--
359	884	Belt Loader	Electric	1998	60	HP	--	--	--	--	--	--	--
360	885	Belt Loader	Electric	1998	60	HP	--	--	--	--	--	--	--
361	886	Belt Loader	Electric	1999	60	HP	--	--	--	--	--	--	--
362	887	Belt Loader	Electric	1999	60	HP	--	--	--	--	--	--	--
363	2820	Aircraft Tug	Electric	2000	110	HP	--	--	--	--	--	--	--
364	3788	Aircraft Tug	Electric	1992	138	HP	--	--	--	--	--	--	--

Table 1. 2024 Ground Support Equipment (GSE) MOU Reporting Data
Ontario Airport MOU
Ontario, California

Unit #	MOU Schedule No. 1. Obligations												
	III.B.1								III.B.2				
	III.B.1.a	III.B.1.b	III.B.1.c	III.B.1.d	III.B.1.e		III.B.1.f	III.B.1.g	--	--	III.B.2.a	III.B.2.b	III.B.2.c
	Equipment ID ¹	Airline GSE Type ¹	Fuel Type ¹ (Electric, Diesel, Propane, Gasoline)	Engine Model Year ¹	Engine Power Rating ¹	Engine Power Rating Units ¹	Engine Tier Level ¹ (for diesel engines)	Default Activity Level - hrs/yr of engine operation or annual mileage ²	Equipment Sold or Relocated? ¹	Date of Status Change ¹	If relocated within South Coast, relocation destination airport ¹	Date of Relocation ¹	Estimated Projected Usage Hours ¹
365	3805	Belt Loader	Electric	2001	60	HP	--	--	--	--	--	--	--
366	3806	Belt Loader	Electric	2001	60	HP	--	--	--	--	--	--	--
367	3807	Belt Loader	Electric	2001	60	HP	--	--	--	--	--	--	--
368	3808	Belt Loader	Electric	2001	60	HP	--	--	--	--	--	--	--
369	9195	Aircraft Tug	Electric	2003	110	HP	--	--	--	--	--	--	--
370	9285	Baggage Tug	Gasoline	2003	202	HP	--	867	--	--	--	--	--
371	9286	Baggage Tug	Gasoline	2003	202	HP	--	867	--	--	--	--	--
372	13459	Forklift	Electric	2008	52	HP	--	--	--	--	--	--	--
373	22093	Ground Power Unit	Diesel	2015	155	HP	Tier 4 Final	548	--	--	--	--	--
374	23776	Service Truck	Gasoline	2016	297	HP	--	841	--	--	--	--	--
375	24802	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
376	24803	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
377	24804	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
378	24805	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
379	24806	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
380	24807	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
381	24808	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
382	24809	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
383	24810	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
384	24811	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
385	24815	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
386	24818	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--	--	--
387	25108	Passenger Stand	Gasoline	2017	49	HP	--	189	--	--	--	--	--
388	26305	Passenger Stand	Gasoline	2018	49	HP	--	183	--	--	--	--	--
389	26686	Forklift	LPG	2018	52	HP	--	736	--	--	--	--	--
390	29595	Baggage Tug	Electric	2019	40	HP	--	--	--	--	--	--	--
391	29598	Belt Loader	Electric	2019	60	HP	--	--	--	--	--	--	--
392	29599	Belt Loader	Electric	2019	60	HP	--	--	--	--	--	--	--
393	29832	Lavatory Truck	Gasoline	2019	100	HP	--	1,214	--	--	--	--	--
394	29833	Lavatory Truck	Gasoline	2019	100	HP	--	1,214	--	--	--	--	--
395	31533	Belt Loader	Electric	2021	60	HP	--	--	--	--	--	--	--
396	3789	Aircraft Tug	Electric	1988	140	HP	--	--	--	--	--	--	--
397	2305	Aircraft Tug	Electric	2001	110	HP	--	--	--	--	--	--	--
398	22493	Air Start Unit	Diesel	2015	333	HP	Tier 4 Final	84	--	--	--	--	--
399	834	Service Truck	Gasoline	1987	200	HP	--	538	Yes - Sold/Retired	9/25/2024	--	--	--
400	2306	Aircraft Tug	Electric	2001	110	HP	--	--	--	--	--	--	--
401	10481	Cargo Tractor	Electric	2004	19	HP	--	--	--	--	--	--	--
402	13504	Forklift	LPG	2008	52	HP	--	387	--	--	--	--	--
403	2307	Aircraft Tug	Electric	2001	110	HP	--	--	--	--	--	--	--
404	35284	Forklift	LPG	2023	51	HP	--	728	--	--	--	--	--
405	35761	Cargo Tractor	Electric	2023	10.7	HP	--	--	--	--	--	--	--
406	38379	Ground Power Unit	Diesel	2023	154	HP	Tier 4 Final	419	Yes - Relocated	7/11/2024	Outside of SCAQMD	7/11/2024	--
407	15005	Sweeper	LPG	2010	75	HP	--	365	--	--	--	--	--
408	29933	Golf Cart	Electric	2019	6.7	HP	--	--	--	--	--	--	--
409	3803	Golf Cart	Electric	2000	10	HP	--	--	--	--	--	--	--
410	172034	Baggage Tug	Diesel	2007	86	HP	Tier 2	744	--	--	--	--	--
411	172185	Baggage Tug	Diesel	2009	42	HP	Tier 4 Interim	744	--	--	--	--	--
412	172186	Baggage Tug	Diesel	2009	42	HP	Tier 4 Interim	744	--	--	--	--	--
413	172195	Baggage Tug	Diesel	2014	49	HP	Tier 4 Final	744	--	--	--	--	--
414	172196	Baggage Tug	Diesel	2014	49	HP	Tier 4 Final	744	--	--	--	--	--
415	270060	Aircraft Tug	Diesel	2007	100	HP	Tier 3	335	--	--	--	--	--
416	270856	Aircraft Tug	Diesel	2018	74	HP	Tier 4 Final	335	--	--	--	--	--

Table 1. 2024 Ground Support Equipment (GSE) MOU Reporting Data
Ontario Airport MOU
Ontario, California

Unit #	MOU Schedule No. 1. Obligations												
	III.B.1								III.B.2				
	III.B.1.a	III.B.1.b	III.B.1.c	III.B.1.d	III.B.1.e		III.B.1.f	III.B.1.g	--	--	III.B.2.a	III.B.2.b	III.B.2.c
	Equipment ID ¹	Airline GSE Type ¹	Fuel Type ¹ (Electric, Diesel, Propane, Gasoline)	Engine Model Year ¹	Engine Power Rating ¹	Engine Power Rating Units ¹	Engine Tier Level ¹ (for diesel engines)	Default Activity Level - hrs/yr of engine operation or annual mileage ²	Equipment Sold or Relocated? ¹	Date of Status Change ¹	If relocated within South Coast, relocation destination airport ¹	Date of Relocation ¹	Estimated Projected Usage Hours ¹
417	522277	Belt Loader	Diesel	2015	49	HP	Tier 4 Final	520	--	--	--	--	--
418	522283	Belt Loader	Diesel	2015	49	HP	Tier 4 Final	520	--	--	--	--	--
419	522656	Belt Loader	Diesel	2007	65	HP	Tier 2	520	--	--	--	--	--
420	522658	Belt Loader	Diesel	2006	65	HP	Tier 2	520	--	--	--	--	--
421	AS145582	Air Start Unit	Diesel	2019	450	HP	Tier 4 Final	68	--	--	--	--	--
422	BL570251	Belt Loader	Gasoline	2018	87	HP	--	813	--	--	--	--	--
423	BL570253	Belt Loader	Gasoline	2017	87	HP	--	807	--	--	--	--	--
424	BL570349	Belt Loader	Gasoline	2022	86.22772036	HP	--	811	--	--	--	--	--
425	BL570374	Belt Loader	Gasoline	2022	61.7	HP	--	811	--	--	--	--	--
426	BT176023	Baggage Tug	Gasoline	2020	61	HP	--	878	--	--	--	--	--
427	BT176024	Baggage Tug	Gasoline	2020	61	HP	--	878	--	--	--	--	--
428	BT176025	Baggage Tug	Gasoline	2020	61	HP	--	878	--	--	--	--	--
429	BT176149	Baggage Tug	Gasoline	2022	61	HP	--	878	--	--	--	--	--
430	BT176150	Baggage Tug	Gasoline	2022	61	HP	--	878	--	--	--	--	--
431	BT176163	Baggage Tug	Gasoline	2023	64.3	HP	--	877	--	--	--	--	--
432	BT176164	Baggage Tug	Gasoline	2023	86	HP	--	877	--	--	--	--	--
433	BT176165	Baggage Tug	Gasoline	2023	64.3	HP	--	877	--	--	--	--	--
434	CV600394	Service Truck	Gasoline	2016	282	HP	--	--	Yes - Sold/Retired	1/18/2024	--	--	--
435	CV600395	Service Truck	Gasoline	2016	282	HP	--	--	--	--	--	--	--
436	GP901943	Ground Power Unit	Diesel	2022	154	HP	Tier 4 Final	793	--	--	--	--	--
437	LT480242	Lavatory Truck	Diesel	2022	65	HP	Tier 4 Final	1,215	--	--	--	--	--
438	PB271189	Aircraft Tug	Diesel	2023	74.29262376	HP	Tier 4 Final	60	--	--	--	--	--
439	AC5276	Air Conditioner	Gasoline	2018	250	HP	--	185	--	--	--	--	--
440	AS1011	Air Start Unit	Diesel	2018	493	HP	Tier 4 Final	101	--	--	--	--	--
441	BL3086	Belt Loader	Electric	2018	40	HP	--	1,794	--	--	--	--	--
442	BL3087	Belt Loader	Electric	2018	40	HP	--	1,486	--	--	--	--	--
443	BL3088	Belt Loader	Electric	2004	30	HP	--	4,262	--	--	--	--	--
444	BL3089	Belt Loader	Electric	2005	30	HP	--	5,683	--	--	--	--	--
445	CT2265	Cargo Tractor	Electric	2018	40	HP	--	817	--	--	--	--	--
446	CT2266	Cargo Tractor	Electric	2018	40	HP	--	776	--	--	--	--	--
447	CT2267	Cargo Tractor	Electric	2018	40	HP	--	738	--	--	--	--	--
448	CT2271	Cargo Tractor	Electric	2018	40	HP	--	834	--	--	--	--	--
449	GP1927	Ground Power Unit	Diesel	2018	110	HP	Tier 4 Final	939	--	--	--	--	--
450	LC022154	Lavatory Cart	Gasoline	2018	7	HP	--	122	--	--	--	--	--
451	LC363368	Lavatory Cart	Gasoline	2004	7	HP	--	183	--	--	--	--	--
452	PT0862	Aircraft Tug	Electric	2018	40	HP	--	704	--	--	--	--	--
453	PT0863	Aircraft Tug	Electric	2018	40	HP	--	449	--	--	--	--	--
454	VC0056	Service Truck	Gasoline	2018	250	HP	--	319	--	--	--	--	--
455	WC022103	Water Truck	Electric	2018	25	HP	--	--	--	--	--	--	--
456	PT1410	Aircraft Tug	Electric	2024	40	HP	--	--	--	--	--	--	--
457	419215	Air Start Unit	Diesel	2021	513	HP	Tier 4 Final	9	--	--	--	--	--
458	425145	Belt Loader	Electric	2023	0		--	--	--	--	--	--	--
459	425146	Belt Loader	Electric	2023	0		--	--	--	--	--	--	--
460	425147	Belt Loader	Electric	2023	0		--	--	--	--	--	--	--
461	425148	Belt Loader	Electric	2023	0		--	--	--	--	--	--	--
462	425149	Belt Loader	Electric	2023	0		--	--	--	--	--	--	--
463	410593	Service Truck	Gasoline	2016	160	HP	--	106	--	--	--	--	--
464	410594	Service Truck	Gasoline	2016	160	HP	--	106	--	--	--	--	--
465	414608	Service Truck	Gasoline	2018	160	HP	--	106	--	--	--	--	--
466	414609	Service Truck	Gasoline	2018	160	HP	--	106	--	--	--	--	--
467	415797	Service Truck	Gasoline	2019	160	HP	--	106	--	--	--	--	--
468	422768	Service Truck	Gasoline	2023	160	HP	--	106	--	--	--	--	--

Table 1. 2024 Ground Support Equipment (GSE) MOU Reporting Data
Ontario Airport MOU
Ontario, California

Unit #	MOU Schedule No. 1. Obligations												
	III.B.1								III.B.2				
	III.B.1.a	III.B.1.b	III.B.1.c	III.B.1.d	III.B.1.e		III.B.1.f	III.B.1.g	--	--	III.B.2.a	III.B.2.b	III.B.2.c
	Equipment ID ¹	Airline GSE Type ¹	Fuel Type ¹ (Electric, Diesel, Propane, Gasoline)	Engine Model Year ¹	Engine Power Rating ¹	Engine Power Rating Units ¹	Engine Tier Level ¹ (for diesel engines)	Default Activity Level - hrs/yr of engine operation or annual mileage ²	Equipment Sold or Relocated? ¹	Date of Status Change ¹	If relocated within South Coast, relocation destination airport ¹	Date of Relocation ¹	Estimated Projected Usage Hours ¹
469	422769	Service Truck	Gasoline	2023	160	HP	--	106	--	--	--	--	--
470	415885	Cargo Loader	Gasoline	2019	385	HP	--	61	--	--	--	--	--
471	419245	Cargo Loader	Diesel	2020	130	HP	Tier 4 Final	61	--	--	--	--	--
472	419247	Cargo Loader	Diesel	2020	130	HP	Tier 4 Final	61	--	--	--	--	--
473	423797	Cargo Loader	Diesel	2022	130	HP	Tier 4 Final	61	--	--	--	--	--
474	423819	Cargo Loader	Diesel	2022	130	HP	Tier 4 Final	61	--	--	--	--	--
475	423821	Cargo Loader	Diesel	2022	130	HP	Tier 4 Final	61	--	--	--	--	--
476	422984	Cargo Tractor	Gasoline	2023	79	HP	--	170	--	--	--	--	--
477	422985	Cargo Tractor	Gasoline	2023	79	HP	--	170	--	--	--	--	--
478	422986	Cargo Tractor	Gasoline	2023	79	HP	--	170	--	--	--	--	--
479	422987	Cargo Tractor	Gasoline	2023	79	HP	--	170	--	--	--	--	--
480	422988	Cargo Tractor	Gasoline	2023	79	HP	--	170	--	--	--	--	--
481	422989	Cargo Tractor	Gasoline	2023	79	HP	--	170	--	--	--	--	--
482	422990	Cargo Tractor	Gasoline	2023	79	HP	--	170	--	--	--	--	--
483	422991	Cargo Tractor	Gasoline	2023	79	HP	--	170	--	--	--	--	--
484	422992	Cargo Tractor	Gasoline	2023	79	HP	--	170	--	--	--	--	--
485	422995	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
486	423081	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
487	423082	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
488	423083	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
489	423084	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
490	423085	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
491	423086	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
492	423087	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
493	423088	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
494	423089	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
495	423090	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
496	423091	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
497	423092	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
498	423093	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
499	423094	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
500	423095	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
501	423096	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
502	423102	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
503	423103	Cargo Tractor	Gasoline	2022	79	HP	--	170	--	--	--	--	--
504	423123	Cargo Tractor	Electric	2022	0		--	--	--	--	--	--	--
505	423124	Cargo Tractor	Electric	2022	0		--	--	--	--	--	--	--
506	423125	Cargo Tractor	Electric	2022	0		--	--	--	--	--	--	--
507	423126	Cargo Tractor	Electric	2022	0		--	--	--	--	--	--	--
508	423127	Cargo Tractor	Electric	2022	0		--	--	--	--	--	--	--
509	423128	Cargo Tractor	Electric	2022	0		--	--	--	--	--	--	--
510	423129	Cargo Tractor	Electric	2022	0		--	--	--	--	--	--	--
511	423130	Cargo Tractor	Electric	2022	0		--	--	--	--	--	--	--
512	425062	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
513	425063	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
514	425064	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
515	425065	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
516	425066	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
517	425067	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
518	425068	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
519	425069	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
520	425070	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--

Table 1. 2024 Ground Support Equipment (GSE) MOU Reporting Data
Ontario Airport MOU
Ontario, California

Unit #	MOU Schedule No. 1. Obligations												
	III.B.1								III.B.2				
	III.B.1.a	III.B.1.b	III.B.1.c	III.B.1.d	III.B.1.e		III.B.1.f	III.B.1.g	--	--	III.B.2.a	III.B.2.b	III.B.2.c
	Equipment ID ¹	Airline GSE Type ¹	Fuel Type ¹ (Electric, Diesel, Propane, Gasoline)	Engine Model Year ¹	Engine Power Rating ¹	Engine Power Rating Units ¹	Engine Tier Level ¹ (for diesel engines)	Default Activity Level - hrs/yr of engine operation or annual mileage ²	Equipment Sold or Relocated? ¹	Date of Status Change ¹	If relocated within South Coast, relocation destination airport ¹	Date of Relocation ¹	Estimated Projected Usage Hours ¹
521	425071	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
522	425072	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
523	425073	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
524	425074	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
525	425075	Cargo Tractor	Electric	2023	0		--	--	--	--	--	--	--
526	423749	Ground Power Unit	Diesel	2022	154	HP	Tier 4 Final	100	--	--	--	--	--
527	423745	Ground Power Unit	Diesel	2022	154	HP	Tier 4 Final	100	--	--	--	--	--
528	424741	Ground Power Unit	Diesel	2022	154	HP	Tier 4 Final	100	--	--	--	--	--
529	419170	Ground Power Unit	Diesel	2020	154	HP	Tier 4 Final	101	--	--	--	--	--
530	419375	Ground Power Unit	Diesel	2020	154	HP	Tier 4 Final	101	--	--	--	--	--
531	419171	Ground Power Unit	Diesel	2020	154	HP	Tier 4 Final	101	--	--	--	--	--
532	834895	Other GSE	Diesel	2010	24	HP	Tier 4 Final	62	--	--	--	--	--
533	835727	Other GSE	Diesel	2012	24	HP	Tier 4 Final	62	--	--	--	--	--
534	410564	Service Truck	Gasoline	2016	385	HP	--	106	--	--	--	--	--
535	426338	Service Truck	Gasoline	2024	385	HP	--	106	--	--	--	--	--
536	426339	Service Truck	Gasoline	2024	385	HP	--	106	--	--	--	--	--
537	424272	Service Truck	Gasoline	2024	385	HP	--	106	--	--	--	--	--
538	424271	Service Truck	Gasoline	2024	385	HP	--	106	--	--	--	--	--
539	424995	Aircraft Tug	Diesel	2023	260	HP	Tier 4 Final	42	--	--	--	--	--
540	423165	Service Truck	Gasoline	2022	285	HP	--	106	--	--	--	--	--
541	423166	Service Truck	Gasoline	2022	285	HP	--	106	--	--	--	--	--
542	423167	Service Truck	Gasoline	2022	285	HP	--	106	--	--	--	--	--
543	423168	Service Truck	Gasoline	2022	285	HP	--	106	--	--	--	--	--
544	423169	Service Truck	Gasoline	2022	285	HP	--	106	--	--	--	--	--
545	423171	Service Truck	Gasoline	2022	285	HP	--	106	--	--	--	--	--
546	423172	Service Truck	Gasoline	2022	285	HP	--	106	--	--	--	--	--
547	423174	Service Truck	Gasoline	2022	285	HP	--	106	--	--	--	--	--
548	423175	Service Truck	Gasoline	2022	285	HP	--	106	--	--	--	--	--
549	419320	Service Truck	Gasoline	2020	401	HP	--	106	--	--	--	--	--
550	419324	Service Truck	Gasoline	2020	401	HP	--	106	--	--	--	--	--
551	419351	Service Truck	Gasoline	2020	401	HP	--	106	--	--	--	--	--
552	419352	Service Truck	Gasoline	2020	401	HP	--	106	--	--	--	--	--
553	422300	Service Truck	Gasoline	2022	401	HP	--	106	--	--	--	--	--
554	422882	Service Truck	Gasoline	2022	401	HP	--	106	--	--	--	--	--
555	A031830	Aircraft Tug	Diesel	2022	173	HP	Tier 4 Final	252	--	--	--	--	--
556	A029296	Ground Power Unit	Diesel	2020	155	HP	Tier 4 Final	269	--	--	--	--	--
557	A029295	Ground Power Unit	Diesel	2023	155	HP	Tier 4 Final	793	--	--	--	--	--
558	EQ98657	Forklift	Propane	2023	56	HP	--	728	--	--	--	--	--
559	A030492	Baggage Tug	Electric	2021	27	HP	--	--	--	--	--	--	--

Notes:
¹ Data provided by tenant airlines and GSE operators at ONT for CY 2024.
² Annual activity data was provided by tenant airlines or obtained from CARB's OFFROAD model.
³ Equipment units shaded in blue were provided by tenant airlines and GSE operators but were deemed to be outside the scope of GSE as defined under this MOU. Thus, although these units are included in the emission inventory calculations in Table 2, they are omitted from the fleet-wide emission factor calculations in Table 3.
[Refer to Table 2 and 3 for additional details.](#)

Table 2. 2024 GSE Emissions
Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
1	ATI601	Air Conditioner	Diesel	1998	100	HP	492	1.24	7.00	45	255
2	GS3384	Lift	Gasoline	2018	75	HP	378	0.09	0.23	3	7
3	JLG600AJ	Lift	Gasoline	2018	84	HP	378	0.09	0.23	3	8
4	GS4390	Lift	Gasoline	2013	75	HP	225	0.15	0.36	3	7
5	558	Baggage Tug	Gasoline	1995	107	HP	1095	1.49	11.99	211	1,703
6	607	Baggage Tug	Gasoline	1997	107	HP	730	1.75	13.51	166	1,280
7	854	Baggage Tug	Gasoline	1997	107	HP	730	1.75	13.51	166	1,280
8	855	Baggage Tug	Gasoline	1997	107	HP	730	1.75	13.51	166	1,280
9	856	Baggage Tug	Gasoline	1996	107	HP	913	1.75	13.51	207	1,600
10	1803	Belt Loader	Gasoline	2001	100	HP	548	1.48	10.80	89	652
11	1874	Belt Loader	Gasoline	2001	100	HP	548	1.48	10.80	89	652
12	3132	Baggage Tug	Gasoline	2003	107	HP	867	0.95	5.37	107	604
13	3622	Aircraft Tug	Diesel	2007	100	HP	335	0.29	2.93	12	116
14	3638	Belt Loader	Gasoline	2007	100	HP	639	1.19	1.37	84	96
15	5380	Ground Power Unit	Diesel	2016	175	HP	730	0.15	0.91	14	86
16	5423	Air Start Unit	Diesel	2016	425	HP	84	0.07	0.87	2	21
17	5603	Baggage Tug	Gasoline	2016	107	HP	876	0.19	0.57	22	65
18	5646	Baggage Tug	Gasoline	2016	107	HP	876	0.19	0.57	22	65
19	6150	Belt Loader	Gasoline	2016	100	HP	812	0.19	0.54	17	48
20	6151	Belt Loader	Gasoline	2016	100	HP	812	0.19	0.54	17	48
21	6532	Aircraft Tug	Diesel	2017	100	HP	335	0.10	1.13	4	45
22	1920	Passenger Stand	Gasoline	2000	107	HP	243	1.71	13.40	58	454
23	1718	Other GSE	Gasoline	2000	230	HP	492	1.75	13.51	218	1,687
24	3629	Other GSE	Gasoline	2001	190	HP	492	1.48	10.80	153	1,114
25	3045	Lavatory Cart	Gasoline	2021	4	HP	183	4.16	2.70	3	2
26	3484	Lavatory Cart	Gasoline	2021	4	HP	183	4.16	2.70	3	2
27	18897	Aircraft Tug	Diesel	1999	87	HP	335	1.62	6.35	56	218
28	64573	Air Start Unit	Diesel	2017	380	HP	73	0.07	0.22	1	4
29	LD576	Belt Loader	Diesel	1993	45	HP	520	3.45	7.00	60	121
30	LD669	Belt Loader	Diesel	2000	45	HP	520	2.78	5.37	48	93
31	LG200	Belt Loader	Gasoline	2012	93	HP	791	0.32	0.78	26	63
32	LG248	Belt Loader	Gasoline	1997	93	HP	365	4.27	11.98	160	448
33	PS262	Aircraft Tug	Diesel	1999	87	HP	335	1.62	6.35	56	218
34	PS340	Aircraft Tug	Diesel	1999	87	HP	335	1.62	6.35	56	218
35	SM053	Lavatory Cart	Gasoline	2006	6	HP	183	18.55	14.59	21	16
36	SN306	Passenger Stand	Gasoline	2015	8	HP	38	3.71	2.40	1	1
37	TM302	Cargo Tractor	Gasoline	1990	93	HP	222	3.63	10.63	89	262
38	TR280	Cargo Tractor	Diesel	2007	65	HP	700	0.60	4.56	22	166
39	TR288	Cargo Tractor	Diesel	2007	65	HP	700	0.60	4.56	22	166
40	TT126	Cargo Tractor	Gasoline	1998	115	HP	183	1.67	13.25	42	331
41	TY850	Cargo Tractor	Gasoline	2001	95	HP	122	2.60	9.82	36	135
42	TY874	Cargo Tractor	Gasoline	1989	107	HP	222	1.49	11.99	42	340
43	TY876	Cargo Tractor	Gasoline	1991	93	HP	222	3.63	10.63	89	262

Table 2. 2024 GSE Emissions
Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
44	LG292	Belt Loader	Gasoline	2012	107	HP	351	0.21	0.68	9	28
45	FE495	Service Truck	Gasoline	2015	275	HP	842	0.20	0.60	20	61
46	SM049	Lavatory Cart	Electric	2003	N/A	N/A	--	--	--	--	--
47	COE230644	Lift	Diesel	2012	67	HP	375	0.28	2.96	5	55
48	FG 25ST11	Forklift	LPG	2008	34	HP	397	16.65	12.16	149	109
49	74	Lift	Electric	2021	36	HP	0	--	--	--	--
50	9	Aircraft Tug	DIESEL	1988	50	HP	0	1.16	7.72	0	0
51	51	Golf Cart	ELECTRIC	2022	5	HP	0	--	--	--	--
52	6662 (RENTAL)	Lift	ELECTRIC	2023	7	HP	--	--	--	--	--
53	2	Vehicle	GASOLINE	2022	162	HP	--	N/A (On-Road)	N/A (On-Road)	--	--
54	1	Vehicle	GASOLINE	2022	162	HP	--	N/A (On-Road)	N/A (On-Road)	--	--
55	56	Vehicle	GASOLINE	2005	300	HP	--	N/A (On-Road)	N/A (On-Road)	--	--
56	9329	Ground Power Unit	Diesel	2001	152	HP	6	0.85	5.43	1	4
57	27378	Aircraft Tug	Diesel	2002	140	HP	160	0.93	5.49	25	145
58	48318	Lavatory Truck	Gasoline	2000	300	HP	5	1.49	12.66	1	10
59	57081	Belt Loader	Electric	2006	11	HP	614	--	--	--	--
60	57082	Belt Loader	Electric	2006	11	HP	1289	--	--	--	--
61	57083	Belt Loader	Electric	2006	11	HP	722	--	--	--	--
62	750020	Passenger Stand	Gasoline	2001	9	HP	2	5.11	2.77	0	0
63	770047	Baggage Tug	Electric	2005	60	HP	177	--	--	--	--
64	770315	Baggage Tug	Electric	2010	40	HP	220	--	--	--	--
65	770317	Baggage Tug	Electric	2010	40	HP	510	--	--	--	--
66	770318	Baggage Tug	Electric	2010	40	HP	245	--	--	--	--
67	770324	Baggage Tug	Electric	2011	40	HP	399	--	--	--	--
68	770325	Baggage Tug	Electric	2011	40	HP	230	--	--	--	--
69	770326	Baggage Tug	Electric	2011	40	HP	205	--	--	--	--
70	770328	Baggage Tug	Electric	2011	25	HP	204	--	--	--	--
71	780048	Passenger Stand	Gasoline	2022	61	HP	183	0.05	0.04	1	1
72	271007	Aircraft Tug	Diesel	2017	74	HP	35	0.13	2.63	0	8
73	523196	Belt Loader	Gasoline	2000	51	HP	28	2.84	11.66	5	19
74	521693	Belt Loader	Diesel	2000	51	HP	19	1.25	5.21	1	4
75	14643	Air Start Unit	Diesel	2023	513	HP	60	0.06	0.13	1	3
76	570193	Belt Loader	Electric	2021	11	HP	--	--	--	--	--
77	570495	Belt Loader	Electric	2021	11	HP	--	--	--	--	--
78	900959	Ground Power Unit	Diesel	2017	155	HP	785	0.15	1.19	13	107
79	22851	Air Start Unit	Diesel	2009	630	HP	13	0.12	2.56	1	14
80	22852	Air Start Unit	Diesel	2009	630	HP	4	0.12	2.57	0	5
81	23194	Cargo Tractor	LPG	2009	75	HP	162	0.43	0.58	6	8
82	23846	Lift	Gasoline	2009	24	HP	422	11.97	7.77	131	85
83	28407	Other GSE	Gasoline	2011	13	HP	183	6.53	4.24	17	11
84	33036	Cargo Loader	Diesel	2010	110	HP	485	0.33	3.11	13	123
85	45739	Cargo Loader	Diesel	2018	74	HP	485	0.22	2.74	6	72
86	45806	Cargo Loader	Diesel	2019	74	HP	153	0.19	2.71	2	23

Table 2. 2024 GSE Emissions
Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
87	47377	Other GSE	Gasoline	2012	51	HP	183	0.16	0.12	2	1
88	47508	Other GSE	Gasoline	2012	51	HP	183	0.16	0.12	2	1
89	48138	Cargo Loader	Diesel	2019	130	HP	485	0.10	0.75	5	35
90	48153	Cargo Loader	Diesel	2019	74	HP	485	0.20	2.72	5	72
91	69592	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
92	69593	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
93	69594	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
94	69595	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
95	500955	Belt Loader	Gasoline	2013	13	HP	793	15.56	10.10	170	110
96	500963	Belt Loader	Gasoline	2013	13	HP	793	15.56	10.10	170	110
97	502544	Lift	Electric	2014	24	HP	--	--	--	--	--
98	502925	Forklift	Electric	2014	36	HP	--	--	--	--	--
99	506513	Cargo Tractor	Electric	2015	80	HP	--	--	--	--	--
100	506514	Cargo Tractor	Electric	2015	80	HP	--	--	--	--	--
101	506515	Cargo Tractor	Electric	2015	80	HP	--	--	--	--	--
102	506516	Cargo Tractor	Electric	2015	80	HP	--	--	--	--	--
103	511605	Air Start Unit	Diesel	2017	543	HP	51	0.07	0.22	1	4
104	512014	Other GSE	Gasoline	2017	13	HP	183	5.11	3.32	13	9
105	512015	Other GSE	Gasoline	2017	13	HP	183	5.11	3.32	13	9
106	512639	Cargo Loader	Diesel	2017	74	HP	485	0.23	2.75	6	73
107	518553	Ground Power Unit	Diesel	2018	155	HP	821	0.14	0.98	13	92
108	518713	Cargo Loader	Diesel	2019	74	HP	485	0.20	2.72	5	72
109	518714	Cargo Loader	Diesel	2019	74	HP	462	0.20	2.72	5	69
110	518715	Cargo Loader	Diesel	2019	74	HP	485	0.20	2.72	5	72
111	518716	Cargo Loader	Diesel	2019	74	HP	485	0.20	2.72	5	72
112	518838	Cargo Tractor	Gasoline	2019	86	HP	1350	0.26	0.64	36	88
113	518839	Cargo Tractor	Gasoline	2019	86	HP	1350	0.26	0.64	36	88
114	518840	Cargo Tractor	Gasoline	2019	86	HP	1350	0.26	0.64	36	88
115	518841	Cargo Tractor	Gasoline	2019	86	HP	1350	0.26	0.64	36	88
116	518842	Cargo Tractor	Gasoline	2019	86	HP	1350	0.26	0.64	36	88
117	518843	Cargo Tractor	Gasoline	2019	86	HP	1350	0.26	0.64	36	88
118	518889	Cargo Tractor	Gasoline	2019	61	HP	1350	0.51	0.39	50	38
119	518893	Cargo Tractor	Gasoline	2019	61	HP	1350	0.51	0.39	50	38
120	518894	Cargo Tractor	Gasoline	2019	61	HP	1350	0.51	0.39	50	38
121	518896	Cargo Tractor	Gasoline	2019	61	HP	1350	0.51	0.39	50	38
122	518903	Cargo Tractor	Gasoline	2019	61	HP	1350	0.51	0.39	50	38
123	518908	Cargo Tractor	Gasoline	2019	61	HP	1350	0.51	0.39	50	38
124	518909	Cargo Tractor	Gasoline	2019	61	HP	1350	0.51	0.39	50	38
125	518913	Cargo Tractor	Gasoline	2019	61	HP	1350	0.51	0.39	50	38
126	518914	Cargo Tractor	Gasoline	2019	61	HP	1350	0.51	0.39	50	38
127	520811	Belt Loader	Gasoline	2019	19	HP	811	9.52	6.18	162	105
128	522891	Ground Power Unit	Diesel	2021	155	HP	794	0.10	0.36	9	33
129	522892	Ground Power Unit	Diesel	2021	155	HP	794	0.10	0.36	9	33

Table 2. 2024 GSE Emissions
Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
130	525515	Other GSE	Electric	2022	15	HP	--	--	--	--	--
131	525516	Other GSE	Electric	2022	15	HP	--	--	--	--	--
132	525517	Other GSE	Electric	2022	15	HP	--	--	--	--	--
133	525518	Other GSE	Electric	2022	15	HP	--	--	--	--	--
134	525976	Ground Power Unit	Diesel	2022	154	HP	793	0.09	0.16	8	15
135	525980	Ground Power Unit	Diesel	2022	154	HP	793	0.09	0.16	8	15
136	504698	Air Conditioner	Diesel	2011	130	HP	492	0.32	2.77	15	131
137	63489	Air Conditioner	Diesel	2006	130	HP	492	0.47	4.19	22	198
138	25280	Air Start Unit	Diesel	2011	679	HP	73	0.10	1.58	4	53
139	41260	Aircraft Tug	Diesel	2015	300	HP	335	0.10	0.81	12	96
140	22844	Aircraft Tug	Diesel	2008	200	HP	335	0.28	2.63	22	208
141	507153	Aircraft Tug	Diesel	2015	290	HP	335	0.10	0.64	12	73
142	22856	Aircraft Tug	Diesel	2008	200	HP	335	0.28	2.63	22	208
143	57086	Belt Loader	Electric	2004	80	HP	--	--	--	--	--
144	57089	Belt Loader	Electric	2004	80	HP	--	--	--	--	--
145	57090	Belt Loader	Electric	2004	80	HP	--	--	--	--	--
146	57091	Belt Loader	Electric	2004	80	HP	--	--	--	--	--
147	57092	Belt Loader	Electric	2004	80	HP	--	--	--	--	--
148	57095	Belt Loader	Electric	2004	80	HP	--	--	--	--	--
149	507145	Belt Loader	Gasoline	2015	80	HP	814	0.26	0.64	19	46
150	57096	Belt Loader	Electric	2004	80	HP	--	--	--	--	--
151	507146	Belt Loader	Gasoline	2015	80	HP	814	0.26	0.64	19	46
152	19787	Cargo Loader	Diesel	2008	125	HP	243	0.35	2.90	8	65
153	40926	Cargo Loader	Diesel	2011	110	HP	485	0.32	2.76	12	109
154	52236	Cargo Loader	Diesel	2011	160	HP	485	0.32	2.76	18	158
155	508187	Cargo Loader	Diesel	2011	160	HP	485	0.32	2.76	18	158
156	40962	Cargo Loader	Diesel	2011	110	HP	485	0.32	2.76	12	109
157	40991	Cargo Loader	Diesel	2011	110	HP	485	0.32	2.76	12	109
158	44109	Cargo Loader	Diesel	2011	110	HP	485	0.32	2.76	12	109
159	45732	Cargo Loader	Diesel	2011	110	HP	485	0.32	2.76	12	109
160	514160	Cargo Loader	Diesel	2018	160	HP	485	0.10	0.95	6	54
161	33428	Cargo Loader	Diesel	2005	102	HP	100	0.47	4.19	4	31
162	55575	Cargo Loader	Diesel	2011	110	HP	485	0.32	2.76	12	109
163	46601	Cargo Loader	Diesel	2013	110	HP	485	0.25	1.99	10	78
164	69587	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
165	69588	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
166	506404	Cargo Tractor	Gasoline	2015	86	HP	1350	0.32	0.78	44	107
167	25116	Cargo Tractor	Gasoline	2010	75	HP	1342	0.32	0.78	38	93
168	69589	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
169	23238	Cargo Tractor	Gasoline	2010	80	HP	1342	0.32	0.78	40	99
170	506405	Cargo Tractor	Gasoline	2015	86	HP	1350	0.32	0.78	44	107
171	25117	Cargo Tractor	Gasoline	2010	75	HP	1342	0.32	0.78	38	93
172	507526	Cargo Tractor	Gasoline	2016	86	HP	1350	0.32	0.78	44	107

Table 2. 2024 GSE Emissions
Ontario Airport MOU
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Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
173	25118	Cargo Tractor	Gasoline	2010	75	HP	1342	0.32	0.78	38	93
174	23239	Cargo Tractor	Gasoline	2010	80	HP	1342	0.32	0.78	40	99
175	507527	Cargo Tractor	Gasoline	2016	86	HP	1350	0.32	0.78	44	107
176	512137	Cargo Tractor	Gasoline	2017	86	HP	1349	0.32	0.78	44	107
177	507528	Cargo Tractor	Gasoline	2016	86	HP	1350	0.32	0.78	44	107
178	23240	Cargo Tractor	Gasoline	2010	80	HP	1342	0.32	0.78	40	99
179	506406	Cargo Tractor	Gasoline	2015	86	HP	1350	0.32	0.78	44	107
180	69590	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
181	512138	Cargo Tractor	Gasoline	2017	86	HP	1349	0.32	0.78	44	107
182	69591	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
183	23241	Cargo Tractor	Gasoline	2010	80	HP	1342	0.32	0.78	40	99
184	57117	Cargo Tractor	Gasoline	2004	65	HP	1278	1.47	3.65	145	360
185	23202	Cargo Tractor	Gasoline	2009	75	HP	1359	3.27	0.14	396	17
186	507529	Cargo Tractor	Gasoline	2016	86	HP	1350	0.32	0.78	44	107
187	23243	Cargo Tractor	Gasoline	2010	80	HP	1342	0.32	0.78	40	99
188	506407	Cargo Tractor	Gasoline	2015	86	HP	1350	0.32	0.78	44	107
189	509689	Cargo Tractor	Gasoline	2016	86	HP	1350	0.32	0.78	44	107
190	23244	Cargo Tractor	Gasoline	2010	80	HP	1342	0.32	0.78	40	99
191	23204	Cargo Tractor	Gasoline	2009	75	HP	1359	3.27	0.14	396	17
192	25293	Cargo Tractor	Gasoline	2011	79	HP	1341	0.32	0.78	40	98
193	509690	Cargo Tractor	Gasoline	2016	86	HP	1350	0.32	0.78	44	107
194	23245	Cargo Tractor	Gasoline	2010	80	HP	1342	0.32	0.78	40	99
195	506408	Cargo Tractor	Gasoline	2015	86	HP	1350	0.32	0.78	44	107
196	509691	Cargo Tractor	Gasoline	2016	86	HP	1350	0.32	0.78	44	107
197	506412	Cargo Tractor	Gasoline	2015	86	HP	1350	0.32	0.78	44	107
198	509692	Cargo Tractor	Gasoline	2016	86	HP	1021	0.32	0.78	33	81
199	23246	Cargo Tractor	Gasoline	2010	80	HP	1342	0.32	0.78	40	99
200	68115	Forklift	LPG	2007	57	HP	222	0.96	0.60	8	5
201	22497	Forklift	Gasoline	2008	57	HP	355	1.01	1.43	14	19
202	507425	Ground Power Unit	Diesel	2016	155	HP	730	0.15	0.92	12	77
203	63363	Service Truck	Diesel	2006	200	HP	834	0.48	4.45	59	548
204	602632	Other GSE	Gasoline	2015	88	HP	186	0.07	0.17	1	3
205	507150	Other GSE	Gasoline	2016	13	HP	92	5.23	3.39	7	4
206	507151	Service Truck	Gasoline	2016	362	HP	841	0.19	0.55	25	74
207	507152	Service Truck	Gasoline	2016	293	HP	841	0.19	0.55	21	60
208	504622	Service Truck	Gasoline	2014	375	HP	846	0.21	0.65	29	91
209	53697	Aircraft Tug	Diesel	2021	300	HP	335	0.08	0.13	9	15
210	525616	Belt Loader	Gasoline	2022	80	HP	811	0.09	0.22	6	16
211	56569	Other GSE	Diesel	2004	65	HP	492	0.94	5.14	22	122
212	523098	Other GSE	Diesel	2021	74	HP	492	0.17	2.69	5	73
213	12108	Cargo Loader	Diesel	2021	130	HP	485	0.09	0.35	4	16
214	62259	Cargo Loader	Diesel	2021	130	HP	485	0.09	0.35	4	16
215	525150	Cargo Loader	Diesel	2019	24	HP	485	0.25	3.66	2	31

Table 2. 2024 GSE Emissions
Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
216	525152	Cargo Loader	Diesel	2019	24	HP	485	0.25	3.66	2	31
217	526247	Cargo Loader	Diesel	2023	9	HP	485	0.16	3.66	1	12
218	69563	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
219	69566	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
220	69567	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
221	69568	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
222	69569	Cargo Tractor	Gasoline	2008	75	HP	1371	3.27	0.14	400	17
223	69573	Cargo Tractor	Gasoline	2008	75	HP	887	3.27	0.14	259	11
224	524815	Forklift	LPG	2022	59	HP	728	0.21	0.14	6	4
225	524816	Forklift	LPG	2022	59	HP	728	0.21	0.14	6	4
226	524823	Other GSE	Diesel	2020	14	HP	492	0.23	3.66	1	18
227	524824	Other GSE	Diesel	2020	14	HP	492	0.23	3.66	1	18
228	531998	Forklift	Propane	2023	85	HP	54	0.12	0.08	0	0
229	517072	Other GSE	Electric	2018	72	V	--	--	--	--	--
230	55245	Cargo Tractor	Gasoline	2002	124	HP	24	1.07	7.71	4	27
231	529351	Cargo Loader	Diesel	2023	160	HP	392	0.07	0.12	3	6
232	507147	Air Start Unit	Diesel	2015	550	HP	58	0.07	0.78	2	17
233	504411	Forklift	Gasoline	2014	62	HP	72	0.47	0.35	1	1
234	528949	Golf Cart	Gasoline	2023	14	HP	95	3.53	2.29	5	3
235	532753	Other GSE	Gasoline	2022	20	HP	30	3.73	2.42	3	2
236	31647	Other GSE	Diesel	1997	265	HP	405	0.58	6.82	46	541
237	A003491	Cargo Loader	Diesel	2018	100	HP	485	0.10	0.95	4	34
238	A008003	Belt Loader	Gasoline	1997	150	HP	214	1.75	13.51	62	478
239	A008087	Forklift	Diesel	1989	210	HP	208	1.20	8.57	23	166
240	A009476	Other GSE	Diesel	2019	98	HP	492	0.10	1.45	4	52
241	A013302	Forklift	LPG	2005	62	HP	397	2.17	3.22	35	52
242	A017195	Cargo Loader	Diesel	2007	100	HP	0	0.12	2.71	0	0
243	A017196	Cargo Loader	Diesel	2012	100	HP	0	0.11	2.54	0	0
244	A017197	Cargo Loader	Diesel	2012	100	HP	0	0.11	2.54	0	0
245	A021342	Cargo Loader	Diesel	2011	100	HP	485	0.32	2.76	11	99
246	A025866	Other GSE	Diesel	2014	225	HP	492	0.13	0.85	11	70
247	A026991	Other GSE	Diesel	2010	240	HP	492	0.33	2.78	29	243
248	A027492	Other GSE	Diesel	2016	225	HP	492	0.12	0.89	10	73
249	A027693	Belt Loader	Diesel	2014	64	HP	520	0.28	2.75	7	68
250	A027731	Aircraft Tug	Diesel	2013	74	HP	335	0.23	2.63	7	77
251	A028333	Other GSE	Gasoline	2019	362	HP	185	0.13	0.20	10	14
252	A028384	Other GSE	Diesel	2019	225	HP	492	0.10	0.12	8	10
253	A028411	Other GSE	Diesel	2018	260	HP	492	0.11	0.12	10	11
254	A028412	Other GSE	Diesel	2019	260	HP	492	0.10	0.12	9	11
255	A028486	Other GSE	Diesel	2019	260	HP	492	0.10	0.12	9	11
256	A028727	Baggage Tug	Gasoline	2019	61	HP	877	0.34	0.26	22	17
257	A028728	Baggage Tug	Gasoline	2019	61	HP	877	0.34	0.26	22	17
258	A028729	Baggage Tug	Gasoline	2019	61	HP	877	0.34	0.26	22	17

Table 2. 2024 GSE Emissions
Ontario Airport MOU
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Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
259	A028733	Belt Loader	Diesel	2018	74	HP	520	0.22	2.74	6	78
260	A029107	Ground Power Unit	Diesel	2016	155	HP	730	0.15	0.92	12	77
261	A029144	Cargo Loader	Diesel	2019	136	HP	485	0.10	0.75	5	36
262	A029156	Other GSE	Gasoline	2020	350	HP	183	0.13	0.18	9	13
263	A029297	Ground Power Unit	Diesel	2018	155	HP	821	0.14	0.98	13	92
264	A029298	Aircraft Tug	Diesel	2019	74	HP	335	0.18	2.69	5	79
265	A029299	Aircraft Tug	Diesel	2019	173	HP	335	0.09	0.74	6	50
266	A029325	Baggage Tug	Electric	2021	27	HP	0	--	--	--	--
267	A029326	Baggage Tug	Electric	2021	27	HP	--	--	--	--	--
268	A029393	Baggage Tug	Electric	2021	27	HP	--	--	--	--	--
269	A029394	Baggage Tug	Electric	2021	27	HP	--	--	--	--	--
270	A029725	Other GSE	Diesel	2018	360	HP	492	0.11	0.13	14	17
271	A029726	Other GSE	Diesel	2018	225	HP	492	0.11	0.12	9	10
272	A029872	Lavatory Truck	Gasoline	2018	360	HP	1200	0.20	0.60	47	143
273	PB01-1	Aircraft Tug	Diesel	2013	100	HP	168	0.20	1.95	4	39
274	T-36	Aircraft Tug	Diesel	2009	268	HP	0	0.12	2.45	0	0
275	A029475	Belt Loader	Electric	2023	80	Volts	--	--	--	--	--
276	A030955	Other GSE	Diesel	2023	225	HP	492	0.07	0.12	6	10
277	A027287	Other GSE	Diesel	2016	240	HP	65	0.11	0.89	1	10
278	A029646	Other GSE	Diesel	2016	240	HP	492	0.12	0.89	10	78
279	A031829	Cargo Loader	Diesel	2023	100	HP	122	0.07	0.12	1	1
280	A031038	Cargo Loader	Diesel	2020	100	HP	162	0.09	0.55	1	7
281	A030394	Belt Loader	Electric	2023	80	Volts	--	--	--	--	--
282	PA61171	Forklift	Electric	2023	80	Volts	--	--	--	--	--
283	A032418	Other GSE	Diesel	2024	225	HP	42	0.06	0.11	0	1
284	8281	Air Start Unit	Diesel	1990	430	HP	150	0.97	7.55	43	333
285	AS01	Air Start Unit	Diesel	2018	174	HP	68	0.07	0.91	1	7
286	BL03	Belt Loader	Gasoline	2017	75	HP	807	0.21	0.51	14	34
287	BL04	Belt Loader	Gasoline	2018	61	HP	813	0.36	0.28	20	15
288	BL05	Belt Loader	Gasoline	2019	64	HP	811	0.31	0.24	18	14
289	BL06	Belt Loader	Gasoline	2018	61	HP	813	0.36	0.28	20	15
290	BL07	Belt Loader	Gasoline	2015	75	HP	814	0.26	0.64	17	43
291	BL08	Belt Loader	Gasoline	2015	75	HP	814	0.26	0.64	17	43
292	CL001	Cargo Loader	Diesel	2019	160	HP	485	0.10	0.75	6	43
293	CL003	Cargo Loader	Diesel	2019	160	HP	485	0.10	0.75	6	43
294	CL0100	Cargo Loader	Diesel	2016	130	HP	485	0.12	0.90	5	42
295	CL0704	Cargo Loader	Diesel	2019	130	HP	485	0.10	0.75	5	35
296	CL0705	Cargo Loader	Diesel	2019	130	HP	485	0.10	0.75	5	35
297	CL0745	Cargo Loader	Diesel	2016	130	HP	485	0.12	0.90	5	42
298	CL1642	Cargo Loader	Diesel	2016	130	HP	485	0.12	0.90	5	42
299	GP01	Ground Power Unit	Diesel	1999	208	HP	663	0.58	7.08	59	721
300	GP02	Ground Power Unit	Diesel	1999	208	HP	1095	0.58	7.08	98	1,191
301	GP05	Ground Power Unit	Diesel	1994	200	HP	1095	1.24	8.72	200	1,410

Table 2. 2024 GSE Emissions
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Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
302	MTS-4	Cargo Tractor	Gasoline	2016	61	HP	1350	0.63	0.48	61	47
303	MTS-5	Cargo Tractor	Gasoline	2018	61	HP	1352	0.59	0.45	58	44
304	MTS-6	Cargo Tractor	Gasoline	2018	61	HP	1352	0.59	0.45	58	44
305	MTS-7	Cargo Tractor	LPG	2018	175	HP	159	0.10	0.04	3	1
306	MTS-8	Cargo Tractor	Gasoline	2018	61	HP	1352	0.59	0.45	58	44
307	MTS-17	Cargo Tractor	Gasoline	2017	61	HP	1349	0.63	0.48	61	47
308	MTS-19	Cargo Tractor	Gasoline	2017	61	HP	1349	0.63	0.48	61	47
309	MTS-23	Cargo Tractor	LPG	2012	175	HP	154	0.17	0.07	5	2
310	MTS-24	Cargo Tractor	Gasoline	2017	61	HP	1349	0.63	0.48	61	47
311	MTS-25	Cargo Tractor	Gasoline	2017	61	HP	1349	0.63	0.48	61	47
312	MTS-26	Cargo Tractor	Gasoline	2018	61	HP	1352	0.59	0.45	58	44
313	MTS-27	Cargo Tractor	Gasoline	2018	61	HP	1352	0.59	0.45	58	44
314	MTS-28	Cargo Tractor	Gasoline	2018	61	HP	1352	0.59	0.45	58	44
315	MTS-29	Cargo Tractor	Gasoline	2018	61	HP	1352	0.59	0.45	58	44
316	MTS-30	Cargo Tractor	Gasoline	2018	61	HP	1352	0.59	0.45	58	44
317	MTS-32	Cargo Tractor	Gasoline	2019	64	HP	1350	0.51	0.39	52	40
318	MTS-33	Cargo Tractor	Gasoline	2019	64	HP	1350	0.51	0.39	52	40
319	MTS-34	Cargo Tractor	Gasoline	2019	64	HP	1350	0.51	0.39	52	40
320	MTS-35	Cargo Tractor	Gasoline	2019	64	HP	1350	0.51	0.39	52	40
321	MTS-36	Cargo Tractor	Gasoline	2019	64	HP	1350	0.51	0.39	52	40
322	MTS-37	Cargo Tractor	Gasoline	2015	75	HP	1350	0.32	0.78	38	93
323	MTS-41	Cargo Tractor	Gasoline	2017	75	HP	1349	0.32	0.78	38	93
324	MTS-42	Cargo Tractor	Gasoline	2017	61	HP	1349	0.63	0.48	61	47
325	PB02	Aircraft Tug	Diesel	2018	173	HP	335	0.09	0.93	6	64
326	YG-01	Other GSE	LPG	2010	300	HP	1022	0.77	0.01	260	2
327	YG-02	Other GSE	LPG	2010	300	HP	1022	0.77	0.01	260	2
328	YG-03	Other GSE	LPG	2010	300	HP	1022	0.77	0.01	260	2
329	YG-04	Other GSE	Diesel	2010	300	HP	492	0.33	2.66	36	290
330	Y1821	Other GSE	Diesel	2020	300	HP	492	0.09	0.13	10	14
331	Y1829	Other GSE	Diesel	2020	300	HP	492	0.09	0.13	10	14
332	AS-822	Air Start Unit	Diesel	2022	200	HP	77	0.06	0.12	1	1
333	2831	Cargo Loader	Diesel	2023	50	HP	485	0.15	2.65	3	47
334	CL007	Cargo Loader	Diesel	2019	130	HP	485	0.10	0.75	5	35
335	GP194	Ground Power Unit	Diesel	2023	200	HP	793	0.08	0.12	9	14
336	GP898	Ground Power Unit	Diesel	2023	200	HP	793	0.08	0.12	9	14
337	GP11270	Ground Power Unit	Diesel	2014	200	HP	548	0.14	0.86	11	69
338	SRT029	Ground Power Unit	Diesel	2023	200	HP	293	0.07	0.12	3	5
339	MTS-9	Cargo Tractor	Diesel	2017	61	HP	700	0.28	2.81	10	96
340	PB7444	Aircraft Tug	Diesel	2023	300	HP	242	0.07	0.13	6	11
341	PB01-2	Aircraft Tug	Diesel	2010	300	HP	335	0.26	2.58	31	306
342	PB04	Aircraft Tug	Diesel	1988	200	HP	222	1.10	8.12	58	427
343	MXT01	Service Truck	Gasoline	2001	340	HP	--	N/A (On-Road)	N/A (On-Road)	--	--
344	CV-02	Service Truck	Gasoline	2003	175	HP	--	N/A (On-Road)	N/A (On-Road)	--	--

Table 2. 2024 GSE Emissions
Ontario Airport MOU
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Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
345	PWT-01	Water Truck	Diesel	2000	200	HP	365	0.53	6.66	29	359
346	LV-01	Lavatory Truck	Diesel	2000	200	HP	365	0.53	6.66	29	359
347	DST-01	Passenger Stand	Gasoline	1984	160	HP	38	1.31	11.39	10	90
348	G13	Golf Cart	Electric	2010	27	HP	--	--	--	--	--
349	G14	Golf Cart	Electric	2010	27	HP	--	--	--	--	--
350	G15	Golf Cart	Electric	2010	27	HP	--	--	--	--	--
351	AC9003	Air Conditioner	Diesel	1998	325	HP	222	0.45	6.04	24	322
352	AC8974	Air Conditioner	Diesel	1998	325	HP	222	0.45	6.04	24	322
353	CL2205	Cargo Loader	Diesel	2023	50	HP	485	0.15	2.65	3	47
354	PB3015	Aircraft Tug	Diesel	2023	200	HP	145	0.07	0.12	2	4
355	G01	Golf Cart	Gasoline	2017	9	HP	22	4.57	2.96	1	1
356	772	Aircraft Tug	Diesel	2010	110	HP	335	0.26	3.03	11	132
357	880	Belt Loader	Electric	1995	60	HP	--	--	--	--	--
358	883	Belt Loader	Electric	1995	60	HP	--	--	--	--	--
359	884	Belt Loader	Electric	1998	60	HP	--	--	--	--	--
360	885	Belt Loader	Electric	1998	60	HP	--	--	--	--	--
361	886	Belt Loader	Electric	1999	60	HP	--	--	--	--	--
362	887	Belt Loader	Electric	1999	60	HP	--	--	--	--	--
363	2820	Aircraft Tug	Electric	2000	110	HP	--	--	--	--	--
364	3788	Aircraft Tug	Electric	1992	138	HP	--	--	--	--	--
365	3805	Belt Loader	Electric	2001	60	HP	--	--	--	--	--
366	3806	Belt Loader	Electric	2001	60	HP	--	--	--	--	--
367	3807	Belt Loader	Electric	2001	60	HP	--	--	--	--	--
368	3808	Belt Loader	Electric	2001	60	HP	--	--	--	--	--
369	9195	Aircraft Tug	Electric	2003	110	HP	--	--	--	--	--
370	9285	Baggage Tug	Gasoline	2003	202	HP	867	0.95	5.37	202	1,141
371	9286	Baggage Tug	Gasoline	2003	202	HP	867	0.95	5.37	202	1,141
372	13459	Forklift	Electric	2008	52	HP	--	--	--	--	--
373	22093	Ground Power Unit	Diesel	2015	155	HP	548	0.13	1.15	8	72
374	23776	Service Truck	Gasoline	2016	297	HP	841	0.19	0.55	21	61
375	24802	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
376	24803	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
377	24804	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
378	24805	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
379	24806	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
380	24807	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
381	24808	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
382	24809	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
383	24810	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
384	24811	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
385	24815	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
386	24818	Baggage Tug	Electric	2017	40	HP	--	--	--	--	--
387	25108	Passenger Stand	Gasoline	2017	49	HP	189	3.51	2.79	42	34

Table 2. 2024 GSE Emissions
Ontario Airport MOU
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Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
388	26305	Passenger Stand	Gasoline	2018	49	HP	183	3.34	2.67	39	31
389	26686	Forklift	LPG	2018	52	HP	736	0.35	0.23	9	6
390	29595	Baggage Tug	Electric	2019	40	HP	--	--	--	--	--
391	29598	Belt Loader	Electric	2019	60	HP	--	--	--	--	--
392	29599	Belt Loader	Electric	2019	60	HP	--	--	--	--	--
393	29832	Lavatory Truck	Gasoline	2019	100	HP	1214	0.19	0.54	13	36
394	29833	Lavatory Truck	Gasoline	2019	100	HP	1214	0.19	0.54	13	36
395	31533	Belt Loader	Electric	2021	60	HP	--	--	--	--	--
396	3789	Aircraft Tug	Electric	1988	140	HP	--	--	--	--	--
397	2305	Aircraft Tug	Electric	2001	110	HP	--	--	--	--	--
398	22493	Air Start Unit	Diesel	2015	333	HP	84	0.07	0.78	1	15
399	834	Service Truck	Gasoline	1987	200	HP	538	1.49	11.99	70	569
400	2306	Aircraft Tug	Electric	2001	110	HP	--	--	--	--	--
401	10481	Cargo Tractor	Electric	2004	19	HP	--	--	--	--	--
402	13504	Forklift	LPG	2008	52	HP	387	1.49	0.93	20	12
403	2307	Aircraft Tug	Electric	2001	110	HP	--	--	--	--	--
404	35284	Forklift	LPG	2023	51	HP	728	0.18	0.12	4	3
405	35761	Cargo Tractor	Electric	2023	11	HP	--	--	--	--	--
406	38379	Ground Power Unit	Diesel	2023	154	HP	419	0.08	0.12	4	6
407	15005	Sweeper	LPG	2010	75	HP	365	0.36	0.25	11	8
408	29933	Golf Cart	Electric	2019	7	HP	--	--	--	--	--
409	3803	Golf Cart	Electric	2000	10	HP	--	--	--	--	--
410	172034	Baggage Tug	Diesel	2007	86	HP	744	0.60	4.19	31	217
411	172185	Baggage Tug	Diesel	2009	42	HP	744	0.35	4.27	9	108
412	172186	Baggage Tug	Diesel	2009	42	HP	744	0.35	4.27	9	108
413	172195	Baggage Tug	Diesel	2014	49	HP	744	0.35	3.43	10	102
414	172196	Baggage Tug	Diesel	2014	49	HP	744	0.35	3.43	10	102
415	270060	Aircraft Tug	Diesel	2007	100	HP	335	0.29	2.93	12	116
416	270856	Aircraft Tug	Diesel	2018	74	HP	335	0.19	2.70	5	79
417	522277	Belt Loader	Diesel	2015	49	HP	520	0.35	3.27	7	62
418	522283	Belt Loader	Diesel	2015	49	HP	520	0.35	3.27	7	62
419	522656	Belt Loader	Diesel	2007	65	HP	520	0.52	4.41	13	110
420	522658	Belt Loader	Diesel	2006	65	HP	520	0.54	4.86	13	121
421	AS145582	Air Start Unit	Diesel	2019	450	HP	68	0.06	0.13	1	3
422	BL570251	Belt Loader	Gasoline	2018	87	HP	813	0.19	0.46	15	36
423	BL570253	Belt Loader	Gasoline	2017	87	HP	807	0.21	0.51	16	40
424	BL570349	Belt Loader	Gasoline	2022	86	HP	811	0.09	0.22	7	17
425	BL570374	Belt Loader	Gasoline	2022	62	HP	811	0.16	0.12	9	7
426	BT176023	Baggage Tug	Gasoline	2020	61	HP	878	0.28	0.21	18	14
427	BT176024	Baggage Tug	Gasoline	2020	61	HP	878	0.28	0.21	18	14
428	BT176025	Baggage Tug	Gasoline	2020	61	HP	878	0.28	0.21	18	14
429	BT176149	Baggage Tug	Gasoline	2022	61	HP	878	0.17	0.13	11	9
430	BT176150	Baggage Tug	Gasoline	2022	61	HP	878	0.17	0.13	11	9

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Ontario Airport MOU
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Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
431	BT176163	Baggage Tug	Gasoline	2023	64	HP	877	0.12	0.09	8	6
432	BT176164	Baggage Tug	Gasoline	2023	86	HP	877	0.07	0.17	6	15
433	BT176165	Baggage Tug	Gasoline	2023	64	HP	877	0.12	0.09	8	6
434	CV600394	Service Truck	Gasoline	2016	282	HP	--	N/A (On-Road)	N/A (On-Road)	--	--
435	CV600395	Service Truck	Gasoline	2016	282	HP	--	N/A (On-Road)	N/A (On-Road)	--	--
436	GP901943	Ground Power Unit	Diesel	2022	154	HP	793	0.09	0.16	8	15
437	LT480242	Lavatory Truck	Diesel	2022	65	HP	1215	0.22	2.74	13	160
438	PB271189	Aircraft Tug	Diesel	2023	74	HP	60	0.13	2.63	1	14
439	AC5276	Air Conditioner	Gasoline	2018	250	HP	185	0.13	0.21	10	16
440	AS1011	Air Start Unit	Diesel	2018	493	HP	101	0.07	0.13	2	4
441	BL3086	Belt Loader	Electric	2018	40	HP	1794	--	--	--	--
442	BL3087	Belt Loader	Electric	2018	40	HP	1486	--	--	--	--
443	BL3088	Belt Loader	Electric	2004	30	HP	4262	--	--	--	--
444	BL3089	Belt Loader	Electric	2005	30	HP	5683	--	--	--	--
445	CT2265	Cargo Tractor	Electric	2018	40	HP	817	--	--	--	--
446	CT2266	Cargo Tractor	Electric	2018	40	HP	776	--	--	--	--
447	CT2267	Cargo Tractor	Electric	2018	40	HP	738	--	--	--	--
448	CT2271	Cargo Tractor	Electric	2018	40	HP	834	--	--	--	--
449	GP1927	Ground Power Unit	Diesel	2018	110	HP	939	0.15	0.98	11	75
450	LC022154	Lavatory Cart	Gasoline	2018	7	HP	122	4.32	2.80	4	3
451	LC363368	Lavatory Cart	Gasoline	2004	7	HP	183	20.12	15.83	28	22
452	PT0862	Aircraft Tug	Electric	2018	40	HP	704	--	--	--	--
453	PT0863	Aircraft Tug	Electric	2018	40	HP	449	--	--	--	--
454	VC0056	Service Truck	Gasoline	2018	250	HP	319	0.14	0.26	5	9
455	WC022103	Water Truck	Electric	2018	25	HP	--	--	--	--	--
456	PT1410	Aircraft Tug	Electric	2024	40	HP	--	--	--	--	--
457	419215	Air Start Unit	Diesel	2021	513	HP	9	0.06	0.13	0	0
458	425145	Belt Loader	Electric	2023	0		--	--	--	--	--
459	425146	Belt Loader	Electric	2023	0		--	--	--	--	--
460	425147	Belt Loader	Electric	2023	0		--	--	--	--	--
461	425148	Belt Loader	Electric	2023	0		--	--	--	--	--
462	425149	Belt Loader	Electric	2023	0		--	--	--	--	--
463	410593	Service Truck	Gasoline	2016	160	HP	106	0.18	0.51	1	4
464	410594	Service Truck	Gasoline	2016	160	HP	106	0.18	0.51	1	4
465	414608	Service Truck	Gasoline	2018	160	HP	106	0.17	0.42	1	3
466	414609	Service Truck	Gasoline	2018	160	HP	106	0.17	0.42	1	3
467	415797	Service Truck	Gasoline	2019	160	HP	106	0.16	0.37	1	3
468	422768	Service Truck	Gasoline	2023	160	HP	106	0.13	0.19	1	1
469	422769	Service Truck	Gasoline	2023	160	HP	106	0.13	0.19	1	1
470	415885	Cargo Loader	Gasoline	2019	385	HP	61	0.14	0.27	4	7
471	419245	Cargo Loader	Diesel	2020	130	HP	61	0.09	0.55	1	3
472	419247	Cargo Loader	Diesel	2020	130	HP	61	0.09	0.55	1	3
473	423797	Cargo Loader	Diesel	2022	130	HP	61	0.07	0.16	0	1

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474	423819	Cargo Loader	Diesel	2022	130	HP	61	0.07	0.16	0	1
475	423821	Cargo Loader	Diesel	2022	130	HP	61	0.07	0.16	0	1
476	422984	Cargo Tractor	Gasoline	2023	79	HP	170	0.06	0.15	1	2
477	422985	Cargo Tractor	Gasoline	2023	79	HP	170	0.06	0.15	1	2
478	422986	Cargo Tractor	Gasoline	2023	79	HP	170	0.06	0.15	1	2
479	422987	Cargo Tractor	Gasoline	2023	79	HP	170	0.06	0.15	1	2
480	422988	Cargo Tractor	Gasoline	2023	79	HP	170	0.06	0.15	1	2
481	422989	Cargo Tractor	Gasoline	2023	79	HP	170	0.06	0.15	1	2
482	422990	Cargo Tractor	Gasoline	2023	79	HP	170	0.06	0.15	1	2
483	422991	Cargo Tractor	Gasoline	2023	79	HP	170	0.06	0.15	1	2
484	422992	Cargo Tractor	Gasoline	2023	79	HP	170	0.06	0.15	1	2
485	422995	Cargo Tractor	Electric	2023	0		--	--	--	--	--
486	423081	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
487	423082	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
488	423083	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
489	423084	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
490	423085	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
491	423086	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
492	423087	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
493	423088	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
494	423089	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
495	423090	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
496	423091	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
497	423092	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
498	423093	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
499	423094	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
500	423095	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
501	423096	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
502	423102	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
503	423103	Cargo Tractor	Gasoline	2022	79	HP	170	0.10	0.25	2	4
504	423123	Cargo Tractor	Electric	2022	0		--	--	--	--	--
505	423124	Cargo Tractor	Electric	2022	0		--	--	--	--	--
506	423125	Cargo Tractor	Electric	2022	0		--	--	--	--	--
507	423126	Cargo Tractor	Electric	2022	0		--	--	--	--	--
508	423127	Cargo Tractor	Electric	2022	0		--	--	--	--	--
509	423128	Cargo Tractor	Electric	2022	0		--	--	--	--	--
510	423129	Cargo Tractor	Electric	2022	0		--	--	--	--	--
511	423130	Cargo Tractor	Electric	2022	0		--	--	--	--	--
512	425062	Cargo Tractor	Electric	2023	0		--	--	--	--	--
513	425063	Cargo Tractor	Electric	2023	0		--	--	--	--	--
514	425064	Cargo Tractor	Electric	2023	0		--	--	--	--	--
515	425065	Cargo Tractor	Electric	2023	0		--	--	--	--	--
516	425066	Cargo Tractor	Electric	2023	0		--	--	--	--	--

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Ontario Airport MOU
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517	425067	Cargo Tractor	Electric	2023	0		--	--	--	--	--
518	425068	Cargo Tractor	Electric	2023	0		--	--	--	--	--
519	425069	Cargo Tractor	Electric	2023	0		--	--	--	--	--
520	425070	Cargo Tractor	Electric	2023	0		--	--	--	--	--
521	425071	Cargo Tractor	Electric	2023	0		--	--	--	--	--
522	425072	Cargo Tractor	Electric	2023	0		--	--	--	--	--
523	425073	Cargo Tractor	Electric	2023	0		--	--	--	--	--
524	425074	Cargo Tractor	Electric	2023	0		--	--	--	--	--
525	425075	Cargo Tractor	Electric	2023	0		--	--	--	--	--
526	423749	Ground Power Unit	Diesel	2022	154	HP	100	0.08	0.16	1	2
527	423745	Ground Power Unit	Diesel	2022	154	HP	100	0.08	0.16	1	2
528	424741	Ground Power Unit	Diesel	2022	154	HP	100	0.08	0.16	1	2
529	419170	Ground Power Unit	Diesel	2020	154	HP	101	0.10	0.55	1	6
530	419375	Ground Power Unit	Diesel	2020	154	HP	101	0.10	0.55	1	6
531	419171	Ground Power Unit	Diesel	2020	154	HP	101	0.10	0.55	1	6
532	834895	Other GSE	Diesel	2010	24	HP	62	0.35	3.89	0	4
533	835727	Other GSE	Diesel	2012	24	HP	62	0.35	3.64	0	4
534	410564	Service Truck	Gasoline	2016	385	HP	106	0.18	0.51	3	9
535	426338	Service Truck	Gasoline	2024	385	HP	106	0.12	0.14	2	3
536	426339	Service Truck	Gasoline	2024	385	HP	106	0.12	0.14	2	3
537	424272	Service Truck	Gasoline	2024	385	HP	106	0.12	0.14	2	3
538	424271	Service Truck	Gasoline	2024	385	HP	106	0.12	0.14	2	3
539	424995	Aircraft Tug	Diesel	2023	260	HP	42	0.06	0.12	1	1
540	423165	Service Truck	Gasoline	2022	285	HP	106	0.14	0.23	2	3
541	423166	Service Truck	Gasoline	2022	285	HP	106	0.14	0.23	2	3
542	423167	Service Truck	Gasoline	2022	285	HP	106	0.14	0.23	2	3
543	423168	Service Truck	Gasoline	2022	285	HP	106	0.14	0.23	2	3
544	423169	Service Truck	Gasoline	2022	285	HP	106	0.14	0.23	2	3
545	423171	Service Truck	Gasoline	2022	285	HP	106	0.14	0.23	2	3
546	423172	Service Truck	Gasoline	2022	285	HP	106	0.14	0.23	2	3
547	423174	Service Truck	Gasoline	2022	285	HP	106	0.14	0.23	2	3
548	423175	Service Truck	Gasoline	2022	285	HP	106	0.14	0.23	2	3
549	419320	Service Truck	Gasoline	2020	401	HP	106	0.15	0.33	3	6
550	419324	Service Truck	Gasoline	2020	401	HP	106	0.15	0.33	3	6
551	419351	Service Truck	Gasoline	2020	401	HP	106	0.15	0.33	3	6
552	419352	Service Truck	Gasoline	2020	401	HP	106	0.15	0.33	3	6
553	422300	Service Truck	Gasoline	2022	401	HP	106	0.14	0.23	3	4
554	422882	Service Truck	Gasoline	2022	401	HP	106	0.14	0.23	3	4
555	A031830	Aircraft Tug	Diesel	2022	173	HP	252	0.07	0.16	4	8
556	A029296	Ground Power Unit	Diesel	2020	155	HP	269	0.11	0.56	3	17
557	A029295	Ground Power Unit	Diesel	2023	155	HP	793	0.08	0.12	7	11
558	EQ98657	Forklift	Propane	2023	56	HP	728	0.18	0.12	5	3
559	A030492	Baggage Tug	Electric	2021	27	HP	--	--	--	--	--

Table 2. 2024 GSE Emissions
Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	Annual Usage ¹ (hrs)	ROG EF ^{2,3} (g/bhp-hr)	NOx EF ^{2,3} (g/bhp-hr)	ROG Emissions (lbs/year)	NOx Emissions (lbs/year)
Annual Emissions (lbs)										17,404	42,204
Daily Emissions ⁴ (lb/day)										48	116

Conversion Factors:
0.9198 Gasoline ROG/HC Ratio derived from OFFROAD2017
1.2997 Diesel ROG/HC Ratio derived from OFFROAD2017

Constants:
365 days/year

Notes:

¹ Unit-specific activity reported by tenants were used where available. If tenant-specific activity was not provided, GSE annual usage hours were calculated using activity from the OFFROAD2017 database for CY 2024 in absence of tenant-specific information. Years prior to CY2024 were used if an exact match in equipment type, fuel type, engine model year, and HP bin was not available. GSE load factors from CARB and SCAQMD guidance are utilized instead of equipment-specific load factors. Activity for units that arrive or depart the airport in 2024 was calculated based on tenant-specific activity if provided, or a prorated default OFFROAD activity based on the period of time the unit is located on-site.

² Model year-specific emission factors and GSE load factors for diesel-fueled equipment were derived from CARB's 2017 Off-Road Diesel Emission Factors. For gasoline-fueled equipment, model year-specific HC and NOx emission factors were calculated based on new engine standards for spark-ignited engines. Gasoline-fueled and diesel-fueled emission factors were calculated by summing the zero-hour pollutant emission factor with the product of the deterioration rate and cumulative hours and multiplying by the fuel correction factor, following the methodology presented in Attachment A of Facility-Based Mobile Source Measure for Commercial Airports Appendix B: Sip Credit Calculations. Available at: <https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/facility-based-mobile-source-measures/airports-final-appendix-b.pdf?sfvrsn=6>. Engine accumulated hours were capped depending on fuel type and model-year (gasoline) or HP (diesel). Model year-specific gasoline-fueled emission factor constants and engine load factors were provided by AQMD. Gasoline-fueled emission factor constants were provided up to a HP bin of 300; therefore, units with a HP greater than 300 HP were quantified using the 300 HP bin constants. Gasoline-fueled emission factor constants for the 50 HP bin were provided based on engine displacement; however since engine displacement information was not available, the maximum emission factor constants were selected. HC emission factors were converted to ROG emission factors by multiplying by a gasoline ROG to HC ratio, derived from OFFROAD 2017. Electric vehicles are assigned an EF of 0. Emissions are calculated by multiplying the respective EFs by the equipment horsepower, load factor and hours of usage in 2024 and converted to an average daily emission rate assuming 365 days of operation.

³ Unit IDs MXT01, CV-02, 1, 2, and 56 are designated and licensed for on-road use. Therefore, emissions from these units were not included in the inventory. Some of these units do not have a power rating listed per the GSE operator.

^a The CARB LSI regulation's definition for airport GSE does not include those categories of GSE equipment that are designated and licensed for on-road use. These pieces of equipment are not subject to the requirements of the LSI regulation. Available at: <https://ww2.arb.ca.gov/sites/default/files/classic/msprog/offroad/orspark/faqs/lsifaqagse.pdf>. Accessed: April 2025.

⁴ Daily emissions are calculated assuming operation 365 days of the year.

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
1	ATI601	Air Conditioner	Diesel	1998	100	HP	7.96
2	GS3384	Lift	Gasoline	2018	75	HP	2.38
3	JLG600AJ	Lift	Gasoline	2018	84	HP	2.38
4	GS4390	Lift	Gasoline	2013	75	HP	2.69
5	558	Baggage Tug	Gasoline	1995	107	HP	10.12
6	607	Baggage Tug	Gasoline	1997	107	HP	11.93
7	854	Baggage Tug	Gasoline	1997	107	HP	11.93
8	855	Baggage Tug	Gasoline	1997	107	HP	11.93
9	856	Baggage Tug	Gasoline	1996	107	HP	11.50
10	1803	Belt Loader	Gasoline	2001	100	HP	10.61
11	1874	Belt Loader	Gasoline	2001	100	HP	10.61
12	3132	Baggage Tug	Gasoline	2003	107	HP	13.80
13	3622	Aircraft Tug	Diesel	2007	100	HP	3.82
14	3638	Belt Loader	Gasoline	2007	100	HP	1.70
15	5380	Ground Power Unit	Diesel	2016	175	HP	0.27
16	5423	Air Start Unit	Diesel	2016	425	HP	0.91
17	5603	Baggage Tug	Gasoline	2016	107	HP	1.24
18	5646	Baggage Tug	Gasoline	2016	107	HP	1.24
19	6150	Belt Loader	Gasoline	2016	100	HP	3.16
20	6151	Belt Loader	Gasoline	2016	100	HP	3.16
21	6532	Aircraft Tug	Diesel	2017	100	HP	0.26
22	1920	Passenger Stand	Gasoline	2000	107	HP	21.24
23	1718	Other GSE	Gasoline	2000	230	HP	6.50
24	3629	Other GSE	Gasoline	2001	190	HP	6.50
25	3045	Lavatory Cart	Gasoline	2021	4	HP	N/A (< 25 HP)
26	3484	Lavatory Cart	Gasoline	2021	4	HP	N/A (< 25 HP)
27	18897	Aircraft Tug	Diesel	1999	87	HP	7.63
28	64573	Air Start Unit	Diesel	2017	380	HP	0.24
29	LD576	Belt Loader	Diesel	1993	45	HP	7.58
30	LD669	Belt Loader	Diesel	2000	45	HP	6.41
31	LG200	Belt Loader	Gasoline	2012	93	HP	3.67
32	LG248	Belt Loader	Gasoline	1997	93	HP	3.65
33	PS262	Aircraft Tug	Diesel	1999	87	HP	7.63
34	PS340	Aircraft Tug	Diesel	1999	87	HP	7.63
35	SM053	Lavatory Cart	Gasoline	2006	6	HP	N/A (< 25 HP)
36	SN306	Passenger Stand	Gasoline	2015	8	HP	N/A (< 25 HP)
37	TM302	Cargo Tractor	Gasoline	1990	93	HP	13.06
38	TR280	Cargo Tractor	Diesel	2007	65	HP	5.55
39	TR288	Cargo Tractor	Diesel	2007	65	HP	5.55
40	TT126	Cargo Tractor	Gasoline	1998	115	HP	17.27
41	TY850	Cargo Tractor	Gasoline	2001	95	HP	22.32
42	TY874	Cargo Tractor	Gasoline	1989	107	HP	17.27
43	TY876	Cargo Tractor	Gasoline	1991	93	HP	13.21

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
44	LG292	Belt Loader	Gasoline	2012	107	HP	3.67
45	FE495	Service Truck	Gasoline	2015	275	HP	2.68
46	SM049	Lavatory Cart	Electric	2003	N/A	N/A	--
47	COE230644	Lift	Diesel	2012	67	HP	2.56
48	FG 25ST11	Forklift	LPG	2008	34	HP	2.72
49	74	Lift	Electric	2021	36	HP	--
50	9	Aircraft Tug	DIESEL	1988	50	HP	7.62
51	51	Golf Cart	ELECTRIC	2022	5	HP	--
52	6662 (RENTAL)	Lift	ELECTRIC	2023	7	HP	--
53	2	Vehicle	GASOLINE	2022	162	HP	N/A (On-Road)
54	1	Vehicle	GASOLINE	2022	162	HP	N/A (On-Road)
55	56	Vehicle	GASOLINE	2005	300	HP	N/A (On-Road)
56	9329	Ground Power Unit	Diesel	2001	152	HP	7.76
57	27378	Aircraft Tug	Diesel	2002	140	HP	7.58
58	48318	Lavatory Truck	Gasoline	2000	300	HP	3.30
59	57081	Belt Loader	Electric	2006	11	HP	--
60	57082	Belt Loader	Electric	2006	11	HP	--
61	57083	Belt Loader	Electric	2006	11	HP	--
62	750020	Passenger Stand	Gasoline	2001	9	HP	N/A (< 25 HP)
63	770047	Baggage Tug	Electric	2005	60	HP	--
64	770315	Baggage Tug	Electric	2010	40	HP	--
65	770317	Baggage Tug	Electric	2010	40	HP	--
66	770318	Baggage Tug	Electric	2010	40	HP	--
67	770324	Baggage Tug	Electric	2011	40	HP	--
68	770325	Baggage Tug	Electric	2011	40	HP	--
69	770326	Baggage Tug	Electric	2011	40	HP	--
70	770328	Baggage Tug	Electric	2011	25	HP	--
71	780048	Passenger Stand	Gasoline	2022	61	HP	2.17
72	271007	Aircraft Tug	Diesel	2017	74	HP	1.37
73	523196	Belt Loader	Gasoline	2000	51	HP	3.81
74	521693	Belt Loader	Diesel	2000	51	HP	8.33
75	14643	Air Start Unit	Diesel	2023	513	HP	0.14
76	570193	Belt Loader	Electric	2021	11	HP	--
77	570495	Belt Loader	Electric	2021	11	HP	--
78	900959	Ground Power Unit	Diesel	2017	155	HP	0.27
79	22851	Air Start Unit	Diesel	2009	630	HP	N/A (Low-Use)
80	22852	Air Start Unit	Diesel	2009	630	HP	2.88
81	23194	Cargo Tractor	LPG	2009	75	HP	1.67
82	23846	Lift	Gasoline	2009	24	HP	N/A (< 25 HP)
83	28407	Other GSE	Gasoline	2011	13	HP	N/A (< 25 HP)
84	33036	Cargo Loader	Diesel	2010	110	HP	2.52
85	45739	Cargo Loader	Diesel	2018	74	HP	0.54
86	45806	Cargo Loader	Diesel	2019	74	HP	1.37

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
87	47377	Other GSE	Gasoline	2012	51	HP	3.07
88	47508	Other GSE	Gasoline	2012	51	HP	3.07
89	48138	Cargo Loader	Diesel	2019	130	HP	0.27
90	48153	Cargo Loader	Diesel	2019	74	HP	1.37
91	69592	Cargo Tractor	Gasoline	2008	75	HP	5.68
92	69593	Cargo Tractor	Gasoline	2008	75	HP	5.68
93	69594	Cargo Tractor	Gasoline	2008	75	HP	5.68
94	69595	Cargo Tractor	Gasoline	2008	75	HP	5.68
95	500955	Belt Loader	Gasoline	2013	13	HP	N/A (< 25 HP)
96	500963	Belt Loader	Gasoline	2013	13	HP	N/A (< 25 HP)
97	502544	Lift	Electric	2014	24	HP	--
98	502925	Forklift	Electric	2014	36	HP	--
99	506513	Cargo Tractor	Electric	2015	80	HP	--
100	506514	Cargo Tractor	Electric	2015	80	HP	--
101	506515	Cargo Tractor	Electric	2015	80	HP	--
102	506516	Cargo Tractor	Electric	2015	80	HP	--
103	511605	Air Start Unit	Diesel	2017	543	HP	0.24
104	512014	Other GSE	Gasoline	2017	13	HP	N/A (< 25 HP)
105	512015	Other GSE	Gasoline	2017	13	HP	N/A (< 25 HP)
106	512639	Cargo Loader	Diesel	2017	74	HP	1.39
107	518553	Ground Power Unit	Diesel	2018	155	HP	0.27
108	518713	Cargo Loader	Diesel	2019	74	HP	1.37
109	518714	Cargo Loader	Diesel	2019	74	HP	1.37
110	518715	Cargo Loader	Diesel	2019	74	HP	1.37
111	518716	Cargo Loader	Diesel	2019	74	HP	1.37
112	518838	Cargo Tractor	Gasoline	2019	86	HP	3.30
113	518839	Cargo Tractor	Gasoline	2019	86	HP	3.30
114	518840	Cargo Tractor	Gasoline	2019	86	HP	3.30
115	518841	Cargo Tractor	Gasoline	2019	86	HP	3.30
116	518842	Cargo Tractor	Gasoline	2019	86	HP	3.30
117	518843	Cargo Tractor	Gasoline	2019	86	HP	3.30
118	518889	Cargo Tractor	Gasoline	2019	61	HP	3.30
119	518893	Cargo Tractor	Gasoline	2019	61	HP	3.30
120	518894	Cargo Tractor	Gasoline	2019	61	HP	3.30
121	518896	Cargo Tractor	Gasoline	2019	61	HP	3.30
122	518903	Cargo Tractor	Gasoline	2019	61	HP	3.30
123	518908	Cargo Tractor	Gasoline	2019	61	HP	3.30
124	518909	Cargo Tractor	Gasoline	2019	61	HP	3.30
125	518913	Cargo Tractor	Gasoline	2019	61	HP	4.94
126	518914	Cargo Tractor	Gasoline	2019	61	HP	4.94
127	520811	Belt Loader	Gasoline	2019	19	HP	N/A (< 25 HP)
128	522891	Ground Power Unit	Diesel	2021	155	HP	0.26
129	522892	Ground Power Unit	Diesel	2021	155	HP	0.26

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
130	525515	Other GSE	Electric	2022	15	HP	--
131	525516	Other GSE	Electric	2022	15	HP	--
132	525517	Other GSE	Electric	2022	15	HP	--
133	525518	Other GSE	Electric	2022	15	HP	--
134	525976	Ground Power Unit	Diesel	2022	154	HP	0.26
135	525980	Ground Power Unit	Diesel	2022	154	HP	0.26
136	504698	Air Conditioner	Diesel	2011	130	HP	2.51
137	63489	Air Conditioner	Diesel	2006	130	HP	4.76
138	25280	Air Start Unit	Diesel	2011	679	HP	1.70
139	41260	Aircraft Tug	Diesel	2015	300	HP	0.27
140	22844	Aircraft Tug	Diesel	2008	200	HP	2.47
141	507153	Aircraft Tug	Diesel	2015	290	HP	0.27
142	22856	Aircraft Tug	Diesel	2008	200	HP	2.47
143	57086	Belt Loader	Electric	2004	80	HP	--
144	57089	Belt Loader	Electric	2004	80	HP	--
145	57090	Belt Loader	Electric	2004	80	HP	--
146	57091	Belt Loader	Electric	2004	80	HP	--
147	57092	Belt Loader	Electric	2004	80	HP	--
148	57095	Belt Loader	Electric	2004	80	HP	--
149	507145	Belt Loader	Gasoline	2015	80	HP	3.28
150	57096	Belt Loader	Electric	2004	80	HP	--
151	507146	Belt Loader	Gasoline	2015	80	HP	3.28
152	19787	Cargo Loader	Diesel	2008	125	HP	2.68
153	40926	Cargo Loader	Diesel	2011	110	HP	2.51
154	52236	Cargo Loader	Diesel	2011	160	HP	2.51
155	508187	Cargo Loader	Diesel	2011	160	HP	2.51
156	40962	Cargo Loader	Diesel	2011	110	HP	2.51
157	40991	Cargo Loader	Diesel	2011	110	HP	2.51
158	44109	Cargo Loader	Diesel	2011	110	HP	2.51
159	45732	Cargo Loader	Diesel	2011	110	HP	2.51
160	514160	Cargo Loader	Diesel	2018	160	HP	0.56
161	33428	Cargo Loader	Diesel	2005	102	HP	4.63
162	55575	Cargo Loader	Diesel	2011	110	HP	2.51
163	46601	Cargo Loader	Diesel	2013	110	HP	2.29
164	69587	Cargo Tractor	Gasoline	2008	75	HP	5.68
165	69588	Cargo Tractor	Gasoline	2008	75	HP	5.68
166	506404	Cargo Tractor	Gasoline	2015	86	HP	4.17
167	25116	Cargo Tractor	Gasoline	2010	75	HP	5.26
168	69589	Cargo Tractor	Gasoline	2008	75	HP	5.68
169	23238	Cargo Tractor	Gasoline	2010	80	HP	5.26
170	506405	Cargo Tractor	Gasoline	2015	86	HP	4.17
171	25117	Cargo Tractor	Gasoline	2010	75	HP	5.26
172	507526	Cargo Tractor	Gasoline	2016	86	HP	3.95

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
173	25118	Cargo Tractor	Gasoline	2010	75	HP	5.26
174	23239	Cargo Tractor	Gasoline	2010	80	HP	5.26
175	507527	Cargo Tractor	Gasoline	2016	86	HP	3.95
176	512137	Cargo Tractor	Gasoline	2017	86	HP	3.73
177	507528	Cargo Tractor	Gasoline	2016	86	HP	3.95
178	23240	Cargo Tractor	Gasoline	2010	80	HP	5.26
179	506406	Cargo Tractor	Gasoline	2015	86	HP	4.17
180	69590	Cargo Tractor	Gasoline	2008	75	HP	5.68
181	512138	Cargo Tractor	Gasoline	2017	86	HP	3.73
182	69591	Cargo Tractor	Gasoline	2008	75	HP	5.68
183	23241	Cargo Tractor	Gasoline	2010	80	HP	5.26
184	57117	Cargo Tractor	Gasoline	2004	65	HP	8.62
185	23202	Cargo Tractor	Gasoline	2009	75	HP	5.49
186	507529	Cargo Tractor	Gasoline	2016	86	HP	3.95
187	23243	Cargo Tractor	Gasoline	2010	80	HP	5.26
188	506407	Cargo Tractor	Gasoline	2015	86	HP	4.17
189	509689	Cargo Tractor	Gasoline	2016	86	HP	3.95
190	23244	Cargo Tractor	Gasoline	2010	80	HP	5.26
191	23204	Cargo Tractor	Gasoline	2009	75	HP	5.49
192	25293	Cargo Tractor	Gasoline	2011	79	HP	5.05
193	509690	Cargo Tractor	Gasoline	2016	86	HP	3.95
194	23245	Cargo Tractor	Gasoline	2010	80	HP	5.26
195	506408	Cargo Tractor	Gasoline	2015	86	HP	4.17
196	509691	Cargo Tractor	Gasoline	2016	86	HP	3.95
197	506412	Cargo Tractor	Gasoline	2015	86	HP	4.17
198	509692	Cargo Tractor	Gasoline	2016	86	HP	3.95
199	23246	Cargo Tractor	Gasoline	2010	80	HP	5.26
200	68115	Forklift	LPG	2007	57	HP	2.78
201	22497	Forklift	Gasoline	2008	57	HP	5.60
202	507425	Ground Power Unit	Diesel	2016	155	HP	1.14
203	63363	Service Truck	Diesel	2006	200	HP	2.90
204	602632	Other GSE	Gasoline	2015	88	HP	0.85
205	507150	Other GSE	Gasoline	2016	13	HP	N/A (< 25 HP)
206	507151	Service Truck	Gasoline	2016	362	HP	0.85
207	507152	Service Truck	Gasoline	2016	293	HP	2.63
208	504622	Service Truck	Gasoline	2014	375	HP	0.95
209	53697	Aircraft Tug	Diesel	2021	300	HP	0.26
210	525616	Belt Loader	Gasoline	2022	80	HP	2.37
211	56569	Other GSE	Diesel	2004	65	HP	6.13
212	523098	Other GSE	Diesel	2021	74	HP	1.36
213	12108	Cargo Loader	Diesel	2021	130	HP	1.08
214	62259	Cargo Loader	Diesel	2021	130	HP	1.08
215	525150	Cargo Loader	Diesel	2019	24	HP	N/A (< 25 HP)

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
216	525152	Cargo Loader	Diesel	2019	24	HP	N/A (< 25 HP)
217	526247	Cargo Loader	Diesel	2023	9	HP	N/A (< 25 HP)
218	69563	Cargo Tractor	Gasoline	2008	75	HP	5.68
219	69566	Cargo Tractor	Gasoline	2008	75	HP	5.68
220	69567	Cargo Tractor	Gasoline	2008	75	HP	5.68
221	69568	Cargo Tractor	Gasoline	2008	75	HP	5.68
222	69569	Cargo Tractor	Gasoline	2008	75	HP	5.68
223	69573	Cargo Tractor	Gasoline	2008	75	HP	5.68
224	524815	Forklift	LPG	2022	59	HP	2.19
225	524816	Forklift	LPG	2022	59	HP	2.19
226	524823	Other GSE	Diesel	2020	14	HP	N/A (< 25 HP)
227	524824	Other GSE	Diesel	2020	14	HP	N/A (< 25 HP)
228	531998	Forklift	Propane	2023	85	HP	2.11
229	517072	Other GSE	Electric	2018	72	V	--
230	55245	Cargo Tractor	Gasoline	2002	124	HP	17.27
231	529351	Cargo Loader	Diesel	2023	160	HP	0.26
232	507147	Air Start Unit	Diesel	2015	550	HP	0.87
233	504411	Forklift	Gasoline	2014	62	HP	4.42
234	528949	Golf Cart	Gasoline	2023	14	HP	N/A (< 25 HP)
235	532753	Other GSE	Gasoline	2022	20	HP	N/A (< 25 HP)
236	31647	Other GSE	Diesel	1997	265	HP	10.23
237	A003491	Cargo Loader	Diesel	2018	100	HP	0.56
238	A008003	Belt Loader	Gasoline	1997	150	HP	3.81
239	A008087	Forklift	Diesel	1989	210	HP	9.29
240	A009476	Other GSE	Diesel	2019	98	HP	0.26
241	A013302	Forklift	LPG	2005	62	HP	2.78
242	A017195	Cargo Loader	Diesel	2007	100	HP	4.60
243	A017196	Cargo Loader	Diesel	2012	100	HP	2.31
244	A017197	Cargo Loader	Diesel	2012	100	HP	2.31
245	A021342	Cargo Loader	Diesel	2011	100	HP	2.51
246	A025866	Other GSE	Diesel	2014	225	HP	0.27
247	A026991	Other GSE	Diesel	2010	240	HP	2.54
248	A027492	Other GSE	Diesel	2016	225	HP	0.27
249	A027693	Belt Loader	Diesel	2014	64	HP	2.57
250	A027731	Aircraft Tug	Diesel	2013	74	HP	2.51
251	A028333	Other GSE	Gasoline	2019	362	HP	1.67
252	A028384	Other GSE	Diesel	2019	225	HP	0.27
253	A028411	Other GSE	Diesel	2018	260	HP	0.27
254	A028412	Other GSE	Diesel	2019	260	HP	0.27
255	A028486	Other GSE	Diesel	2019	260	HP	0.27
256	A028727	Baggage Tug	Gasoline	2019	61	HP	2.83
257	A028728	Baggage Tug	Gasoline	2019	61	HP	2.83
258	A028729	Baggage Tug	Gasoline	2019	61	HP	2.83

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
259	A028733	Belt Loader	Diesel	2018	74	HP	1.39
260	A029107	Ground Power Unit	Diesel	2016	155	HP	1.14
261	A029144	Cargo Loader	Diesel	2019	136	HP	0.27
262	A029156	Other GSE	Gasoline	2020	350	HP	1.63
263	A029297	Ground Power Unit	Diesel	2018	155	HP	0.27
264	A029298	Aircraft Tug	Diesel	2019	74	HP	1.36
265	A029299	Aircraft Tug	Diesel	2019	173	HP	0.26
266	A029325	Baggage Tug	Electric	2021	27	HP	--
267	A029326	Baggage Tug	Electric	2021	27	HP	--
268	A029393	Baggage Tug	Electric	2021	27	HP	--
269	A029394	Baggage Tug	Electric	2021	27	HP	--
270	A029725	Other GSE	Diesel	2018	360	HP	0.27
271	A029726	Other GSE	Diesel	2018	225	HP	0.27
272	A029872	Lavatory Truck	Gasoline	2018	360	HP	2.70
273	PB01-1	Aircraft Tug	Diesel	2013	100	HP	2.25
274	T-36	Aircraft Tug	Diesel	2009	268	HP	2.47
275	A029475	Belt Loader	Electric	2023	80	Volts	--
276	A030955	Other GSE	Diesel	2023	225	HP	0.26
277	A027287	Other GSE	Diesel	2016	240	HP	0.27
278	A029646	Other GSE	Diesel	2016	240	HP	0.27
279	A031829	Cargo Loader	Diesel	2023	100	HP	0.26
280	A031038	Cargo Loader	Diesel	2020	100	HP	1.04
281	A030394	Belt Loader	Electric	2023	80	Volts	--
282	PA61171	Forklift	Electric	2023	80	Volts	--
283	A032418	Other GSE	Diesel	2024	225	HP	0.26
284	8281	Air Start Unit	Diesel	1990	430	HP	7.57
285	AS01	Air Start Unit	Diesel	2018	174	HP	1.02
286	BL03	Belt Loader	Gasoline	2017	75	HP	3.03
287	BL04	Belt Loader	Gasoline	2018	61	HP	1.30
288	BL05	Belt Loader	Gasoline	2019	64	HP	2.76
289	BL06	Belt Loader	Gasoline	2018	61	HP	2.89
290	BL07	Belt Loader	Gasoline	2015	75	HP	3.28
291	BL08	Belt Loader	Gasoline	2015	75	HP	3.28
292	CL001	Cargo Loader	Diesel	2019	160	HP	0.27
293	CL003	Cargo Loader	Diesel	2019	160	HP	0.27
294	CL0100	Cargo Loader	Diesel	2016	130	HP	0.27
295	CL0704	Cargo Loader	Diesel	2019	130	HP	0.27
296	CL0705	Cargo Loader	Diesel	2019	130	HP	0.27
297	CL0745	Cargo Loader	Diesel	2016	130	HP	0.27
298	CL1642	Cargo Loader	Diesel	2016	130	HP	0.27
299	GP01	Ground Power Unit	Diesel	1999	208	HP	6.91
300	GP02	Ground Power Unit	Diesel	1999	208	HP	6.91
301	GP05	Ground Power Unit	Diesel	1994	200	HP	4.00

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
302	MTS-4	Cargo Tractor	Gasoline	2016	61	HP	4.94
303	MTS-5	Cargo Tractor	Gasoline	2018	61	HP	3.51
304	MTS-6	Cargo Tractor	Gasoline	2018	61	HP	3.51
305	MTS-7	Cargo Tractor	LPG	2018	175	HP	2.19
306	MTS-8	Cargo Tractor	Gasoline	2018	61	HP	3.51
307	MTS-17	Cargo Tractor	Gasoline	2017	61	HP	3.73
308	MTS-19	Cargo Tractor	Gasoline	2017	61	HP	3.73
309	MTS-23	Cargo Tractor	LPG	2012	175	HP	2.18
310	MTS-24	Cargo Tractor	Gasoline	2017	61	HP	3.73
311	MTS-25	Cargo Tractor	Gasoline	2017	61	HP	3.73
312	MTS-26	Cargo Tractor	Gasoline	2018	61	HP	3.51
313	MTS-27	Cargo Tractor	Gasoline	2018	61	HP	3.51
314	MTS-28	Cargo Tractor	Gasoline	2018	61	HP	3.51
315	MTS-29	Cargo Tractor	Gasoline	2018	61	HP	6.23
316	MTS-30	Cargo Tractor	Gasoline	2018	61	HP	6.23
317	MTS-32	Cargo Tractor	Gasoline	2019	64	HP	6.23
318	MTS-33	Cargo Tractor	Gasoline	2019	64	HP	4.94
319	MTS-34	Cargo Tractor	Gasoline	2019	64	HP	4.94
320	MTS-35	Cargo Tractor	Gasoline	2019	64	HP	4.94
321	MTS-36	Cargo Tractor	Gasoline	2019	64	HP	4.94
322	MTS-37	Cargo Tractor	Gasoline	2015	75	HP	4.17
323	MTS-41	Cargo Tractor	Gasoline	2017	75	HP	3.73
324	MTS-42	Cargo Tractor	Gasoline	2017	61	HP	3.73
325	PB02	Aircraft Tug	Diesel	2018	173	HP	0.26
326	YG-01	Other GSE	LPG	2010	300	HP	3.64
327	YG-02	Other GSE	LPG	2010	300	HP	3.64
328	YG-03	Other GSE	LPG	2010	300	HP	3.64
329	YG-04	Other GSE	Diesel	2010	300	HP	1.39
330	Y1821	Other GSE	Diesel	2020	300	HP	0.26
331	Y1829	Other GSE	Diesel	2020	300	HP	0.26
332	AS-822	Air Start Unit	Diesel	2022	200	HP	0.13
333	2831	Cargo Loader	Diesel	2023	50	HP	1.34
334	CL007	Cargo Loader	Diesel	2019	130	HP	0.27
335	GP194	Ground Power Unit	Diesel	2023	200	HP	0.26
336	GP898	Ground Power Unit	Diesel	2023	200	HP	0.26
337	GP11270	Ground Power Unit	Diesel	2014	200	HP	0.27
338	SRT029	Ground Power Unit	Diesel	2023	200	HP	0.26
339	MTS-9	Cargo Tractor	Diesel	2017	61	HP	1.42
340	PB7444	Aircraft Tug	Diesel	2023	300	HP	0.26
341	PB01-2	Aircraft Tug	Diesel	2010	300	HP	2.47
342	PB04	Aircraft Tug	Diesel	1988	200	HP	8.91
343	MXT01	Service Truck	Gasoline	2001	340	HP	N/A (On-Road)
344	CV-02	Service Truck	Gasoline	2003	175	HP	N/A (On-Road)

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
345	PWT-01	Water Truck	Diesel	2000	200	HP	7.33
346	LV-01	Lavatory Truck	Diesel	2000	200	HP	7.33
347	DST-01	Passenger Stand	Gasoline	1984	160	HP	7.93
348	G13	Golf Cart	Electric	2010	27	HP	--
349	G14	Golf Cart	Electric	2010	27	HP	--
350	G15	Golf Cart	Electric	2010	27	HP	--
351	AC9003	Air Conditioner	Diesel	1998	325	HP	9.71
352	AC8974	Air Conditioner	Diesel	1998	325	HP	9.71
353	CL2205	Cargo Loader	Diesel	2023	50	HP	1.34
354	PB3015	Aircraft Tug	Diesel	2023	200	HP	0.26
355	G01	Golf Cart	Gasoline	2017	9	HP	N/A (< 25 HP)
356	772	Aircraft Tug	Diesel	2010	110	HP	2.46
357	880	Belt Loader	Electric	1995	60	HP	--
358	883	Belt Loader	Electric	1995	60	HP	--
359	884	Belt Loader	Electric	1998	60	HP	--
360	885	Belt Loader	Electric	1998	60	HP	--
361	886	Belt Loader	Electric	1999	60	HP	--
362	887	Belt Loader	Electric	1999	60	HP	--
363	2820	Aircraft Tug	Electric	2000	110	HP	--
364	3788	Aircraft Tug	Electric	1992	138	HP	--
365	3805	Belt Loader	Electric	2001	60	HP	--
366	3806	Belt Loader	Electric	2001	60	HP	--
367	3807	Belt Loader	Electric	2001	60	HP	--
368	3808	Belt Loader	Electric	2001	60	HP	--
369	9195	Aircraft Tug	Electric	2003	110	HP	--
370	9285	Baggage Tug	Gasoline	2003	202	HP	3.68
371	9286	Baggage Tug	Gasoline	2003	202	HP	3.68
372	13459	Forklift	Electric	2008	52	HP	--
373	22093	Ground Power Unit	Diesel	2015	155	HP	0.27
374	23776	Service Truck	Gasoline	2016	297	HP	2.63
375	24802	Baggage Tug	Electric	2017	40	HP	--
376	24803	Baggage Tug	Electric	2017	40	HP	--
377	24804	Baggage Tug	Electric	2017	40	HP	--
378	24805	Baggage Tug	Electric	2017	40	HP	--
379	24806	Baggage Tug	Electric	2017	40	HP	--
380	24807	Baggage Tug	Electric	2017	40	HP	--
381	24808	Baggage Tug	Electric	2017	40	HP	--
382	24809	Baggage Tug	Electric	2017	40	HP	--
383	24810	Baggage Tug	Electric	2017	40	HP	--
384	24811	Baggage Tug	Electric	2017	40	HP	--
385	24815	Baggage Tug	Electric	2017	40	HP	--
386	24818	Baggage Tug	Electric	2017	40	HP	--
387	25108	Passenger Stand	Gasoline	2017	49	HP	1.73

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
388	26305	Passenger Stand	Gasoline	2018	49	HP	1.73
389	26686	Forklift	LPG	2018	52	HP	2.50
390	29595	Baggage Tug	Electric	2019	40	HP	--
391	29598	Belt Loader	Electric	2019	60	HP	--
392	29599	Belt Loader	Electric	2019	60	HP	--
393	29832	Lavatory Truck	Gasoline	2019	100	HP	2.62
394	29833	Lavatory Truck	Gasoline	2019	100	HP	2.62
395	31533	Belt Loader	Electric	2021	60	HP	--
396	3789	Aircraft Tug	Electric	1988	140	HP	--
397	2305	Aircraft Tug	Electric	2001	110	HP	--
398	22493	Air Start Unit	Diesel	2015	333	HP	0.87
399	834	Service Truck	Gasoline	1987	200	HP	5.15
400	2306	Aircraft Tug	Electric	2001	110	HP	--
401	10481	Cargo Tractor	Electric	2004	19	HP	--
402	13504	Forklift	LPG	2008	52	HP	3.69
403	2307	Aircraft Tug	Electric	2001	110	HP	--
404	35284	Forklift	LPG	2023	51	HP	2.11
405	35761	Cargo Tractor	Electric	2023	11	HP	--
406	38379	Ground Power Unit	Diesel	2023	154	HP	0.26
407	15005	Sweeper	LPG	2010	75	HP	1.88
408	29933	Golf Cart	Electric	2019	7	HP	--
409	3803	Golf Cart	Electric	2000	10	HP	--
410	172034	Baggage Tug	Diesel	2007	86	HP	5.60
411	172185	Baggage Tug	Diesel	2009	42	HP	3.15
412	172186	Baggage Tug	Diesel	2009	42	HP	3.15
413	172195	Baggage Tug	Diesel	2014	49	HP	2.64
414	172196	Baggage Tug	Diesel	2014	49	HP	2.64
415	270060	Aircraft Tug	Diesel	2007	100	HP	3.82
416	270856	Aircraft Tug	Diesel	2018	74	HP	0.26
417	522277	Belt Loader	Diesel	2015	49	HP	3.02
418	522283	Belt Loader	Diesel	2015	49	HP	3.02
419	522656	Belt Loader	Diesel	2007	65	HP	5.35
420	522658	Belt Loader	Diesel	2006	65	HP	5.32
421	AS145582	Air Start Unit	Diesel	2019	450	HP	0.13
422	BL570251	Belt Loader	Gasoline	2018	87	HP	2.89
423	BL570253	Belt Loader	Gasoline	2017	87	HP	3.03
424	BL570349	Belt Loader	Gasoline	2022	86	HP	2.37
425	BL570374	Belt Loader	Gasoline	2022	62	HP	2.37
426	BT176023	Baggage Tug	Gasoline	2020	61	HP	2.69
427	BT176024	Baggage Tug	Gasoline	2020	61	HP	2.69
428	BT176025	Baggage Tug	Gasoline	2020	61	HP	2.69
429	BT176149	Baggage Tug	Gasoline	2022	61	HP	2.40
430	BT176150	Baggage Tug	Gasoline	2022	61	HP	2.40

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
431	BT176163	Baggage Tug	Gasoline	2023	64	HP	2.26
432	BT176164	Baggage Tug	Gasoline	2023	86	HP	2.26
433	BT176165	Baggage Tug	Gasoline	2023	64	HP	2.26
434	CV600394	Service Truck	Gasoline	2016	282	HP	N/A (On-Road)
435	CV600395	Service Truck	Gasoline	2016	282	HP	N/A (On-Road)
436	GP901943	Ground Power Unit	Diesel	2022	154	HP	0.26
437	LT480242	Lavatory Truck	Diesel	2022	65	HP	1.35
438	PB271189	Aircraft Tug	Diesel	2023	74	HP	1.34
439	AC5276	Air Conditioner	Gasoline	2018	250	HP	1.17
440	AS1011	Air Start Unit	Diesel	2018	493	HP	0.14
441	BL3086	Belt Loader	Electric	2018	40	HP	--
442	BL3087	Belt Loader	Electric	2018	40	HP	--
443	BL3088	Belt Loader	Electric	2004	30	HP	--
444	BL3089	Belt Loader	Electric	2005	30	HP	--
445	CT2265	Cargo Tractor	Electric	2018	40	HP	--
446	CT2266	Cargo Tractor	Electric	2018	40	HP	--
447	CT2267	Cargo Tractor	Electric	2018	40	HP	--
448	CT2271	Cargo Tractor	Electric	2018	40	HP	--
449	GP1927	Ground Power Unit	Diesel	2018	110	HP	0.27
450	LC022154	Lavatory Cart	Gasoline	2018	7	HP	N/A (< 25 HP)
451	LC363368	Lavatory Cart	Gasoline	2004	7	HP	N/A (< 25 HP)
452	PT0862	Aircraft Tug	Electric	2018	40	HP	--
453	PT0863	Aircraft Tug	Electric	2018	40	HP	--
454	VC0056	Service Truck	Gasoline	2018	250	HP	2.52
455	WC022103	Water Truck	Electric	2018	25	HP	--
456	PT1410	Aircraft Tug	Electric	2024	40	HP	--
457	419215	Air Start Unit	Diesel	2021	513	HP	0.13
458	425145	Belt Loader	Electric	2023	0		--
459	425146	Belt Loader	Electric	2023	0		--
460	425147	Belt Loader	Electric	2023	0		--
461	425148	Belt Loader	Electric	2023	0		--
462	425149	Belt Loader	Electric	2023	0		--
463	410593	Service Truck	Gasoline	2016	160	HP	2.63
464	410594	Service Truck	Gasoline	2016	160	HP	2.63
465	414608	Service Truck	Gasoline	2018	160	HP	2.52
466	414609	Service Truck	Gasoline	2018	160	HP	2.52
467	415797	Service Truck	Gasoline	2019	160	HP	2.47
468	422768	Service Truck	Gasoline	2023	160	HP	2.26
469	422769	Service Truck	Gasoline	2023	160	HP	2.26
470	415885	Cargo Loader	Gasoline	2019	385	HP	0.18
471	419245	Cargo Loader	Diesel	2020	130	HP	1.04
472	419247	Cargo Loader	Diesel	2020	130	HP	1.04
473	423797	Cargo Loader	Diesel	2022	130	HP	0.26

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
474	423819	Cargo Loader	Diesel	2022	130	HP	0.26
475	423821	Cargo Loader	Diesel	2022	130	HP	0.26
476	422984	Cargo Tractor	Gasoline	2023	79	HP	2.42
477	422985	Cargo Tractor	Gasoline	2023	79	HP	2.42
478	422986	Cargo Tractor	Gasoline	2023	79	HP	2.42
479	422987	Cargo Tractor	Gasoline	2023	79	HP	2.42
480	422988	Cargo Tractor	Gasoline	2023	79	HP	2.42
481	422989	Cargo Tractor	Gasoline	2023	79	HP	2.42
482	422990	Cargo Tractor	Gasoline	2023	79	HP	2.42
483	422991	Cargo Tractor	Gasoline	2023	79	HP	2.42
484	422992	Cargo Tractor	Gasoline	2023	79	HP	2.42
485	422995	Cargo Tractor	Electric	2023	0		--
486	423081	Cargo Tractor	Gasoline	2022	79	HP	2.64
487	423082	Cargo Tractor	Gasoline	2022	79	HP	2.64
488	423083	Cargo Tractor	Gasoline	2022	79	HP	2.64
489	423084	Cargo Tractor	Gasoline	2022	79	HP	2.64
490	423085	Cargo Tractor	Gasoline	2022	79	HP	2.64
491	423086	Cargo Tractor	Gasoline	2022	79	HP	2.64
492	423087	Cargo Tractor	Gasoline	2022	79	HP	2.64
493	423088	Cargo Tractor	Gasoline	2022	79	HP	2.64
494	423089	Cargo Tractor	Gasoline	2022	79	HP	2.64
495	423090	Cargo Tractor	Gasoline	2022	79	HP	2.64
496	423091	Cargo Tractor	Gasoline	2022	79	HP	2.64
497	423092	Cargo Tractor	Gasoline	2022	79	HP	2.64
498	423093	Cargo Tractor	Gasoline	2022	79	HP	2.64
499	423094	Cargo Tractor	Gasoline	2022	79	HP	2.64
500	423095	Cargo Tractor	Gasoline	2022	79	HP	2.64
501	423096	Cargo Tractor	Gasoline	2022	79	HP	2.64
502	423102	Cargo Tractor	Gasoline	2022	79	HP	2.64
503	423103	Cargo Tractor	Gasoline	2022	79	HP	2.64
504	423123	Cargo Tractor	Electric	2022	0		--
505	423124	Cargo Tractor	Electric	2022	0		--
506	423125	Cargo Tractor	Electric	2022	0		--
507	423126	Cargo Tractor	Electric	2022	0		--
508	423127	Cargo Tractor	Electric	2022	0		--
509	423128	Cargo Tractor	Electric	2022	0		--
510	423129	Cargo Tractor	Electric	2022	0		--
511	423130	Cargo Tractor	Electric	2022	0		--
512	425062	Cargo Tractor	Electric	2023	0		--
513	425063	Cargo Tractor	Electric	2023	0		--
514	425064	Cargo Tractor	Electric	2023	0		--
515	425065	Cargo Tractor	Electric	2023	0		--
516	425066	Cargo Tractor	Electric	2023	0		--

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
517	425067	Cargo Tractor	Electric	2023	0		--
518	425068	Cargo Tractor	Electric	2023	0		--
519	425069	Cargo Tractor	Electric	2023	0		--
520	425070	Cargo Tractor	Electric	2023	0		--
521	425071	Cargo Tractor	Electric	2023	0		--
522	425072	Cargo Tractor	Electric	2023	0		--
523	425073	Cargo Tractor	Electric	2023	0		--
524	425074	Cargo Tractor	Electric	2023	0		--
525	425075	Cargo Tractor	Electric	2023	0		--
526	423749	Ground Power Unit	Diesel	2022	154	HP	0.26
527	423745	Ground Power Unit	Diesel	2022	154	HP	0.26
528	424741	Ground Power Unit	Diesel	2022	154	HP	0.26
529	419170	Ground Power Unit	Diesel	2020	154	HP	0.26
530	419375	Ground Power Unit	Diesel	2020	154	HP	0.26
531	419171	Ground Power Unit	Diesel	2020	154	HP	0.26
532	834895	Other GSE	Diesel	2010	24	HP	N/A (< 25 HP)
533	835727	Other GSE	Diesel	2012	24	HP	N/A (< 25 HP)
534	410564	Service Truck	Gasoline	2016	385	HP	2.63
535	426338	Service Truck	Gasoline	2024	385	HP	2.21
536	426339	Service Truck	Gasoline	2024	385	HP	2.21
537	424272	Service Truck	Gasoline	2024	385	HP	2.21
538	424271	Service Truck	Gasoline	2024	385	HP	2.21
539	424995	Aircraft Tug	Diesel	2023	260	HP	0.26
540	423165	Service Truck	Gasoline	2022	285	HP	2.32
541	423166	Service Truck	Gasoline	2022	285	HP	2.32
542	423167	Service Truck	Gasoline	2022	285	HP	2.32
543	423168	Service Truck	Gasoline	2022	285	HP	2.32
544	423169	Service Truck	Gasoline	2022	285	HP	2.32
545	423171	Service Truck	Gasoline	2022	285	HP	2.32
546	423172	Service Truck	Gasoline	2022	285	HP	2.32
547	423174	Service Truck	Gasoline	2022	285	HP	2.32
548	423175	Service Truck	Gasoline	2022	285	HP	2.32
549	419320	Service Truck	Gasoline	2020	401	HP	2.41
550	419324	Service Truck	Gasoline	2020	401	HP	2.41
551	419351	Service Truck	Gasoline	2020	401	HP	2.41
552	419352	Service Truck	Gasoline	2020	401	HP	2.41
553	422300	Service Truck	Gasoline	2022	401	HP	2.32
554	422882	Service Truck	Gasoline	2022	401	HP	2.32
555	A031830	Aircraft Tug	Diesel	2022	173	HP	0.62
556	A029296	Ground Power Unit	Diesel	2020	155	HP	0.26
557	A029295	Ground Power Unit	Diesel	2023	155	HP	0.26
558	EQ98657	Forklift	Propane	2023	56	HP	2.11
559	A030492	Baggage Tug	Electric	2021	27	HP	--

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU

Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
Fleet Averaged Emission Factor (g/bhp-hr)							2.42

Table 3. 2024 GSE Fleet Average Emission Factor

Ontario Airport MOU
Ontario, California

Unit #	Equipment ID	GSE Type	Fuel Type	Engine Model Year	Engine Power Rating	Engine Power Rating Units	NOx EF ^{1,2,3} (g/bhp-hr)
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Notes:

- ¹ GSE load factors were taken from OFFROAD2017.
- ² Model year-specific emission factors were derived from OFFROAD2017 by dividing total emissions by the total annual horsepower-hours and load factor for each equipment type based on equipment model year and horsepower bin. Where an exact model year and/or horsepower bin match did not exist, an alternate model year/horsepower bin combination was selected to look up emission factors. Electric vehicles are assigned an EF of 0. The baseline NOx emission factor was used in place of OFFROAD2017 default emission factors for units present in the baseline if the % difference between the baseline and OFFROAD2017 default EFs are greater or equal to 50% and the engine model year has not changed.
- ³ Equipment that do not meet criteria for GSE as specified in the MOU were not included in the emission factor calculations. These pieces of equipment are shown in this table, but do not have emission factor calculations as shown by "N/A". Examples of equipment that do not meet MOU GSE criteria include vehicles licensed by the DMV for on-road usage (designated as "N/A - Onroad"), equipment with a rating less than 25 horsepower (designated as "N/A - < 25 horsepower"), and equipment exempt as part of a low-usage exemption (designated as "N/A - Low Use Exemption"). Regulatory guidance for these examples are cited below.
- ^a The CARB LSI regulation's definition for airport GSE does not include those categories of GSE equipment that are designated and licensed for on-road use. These pieces of equipment are not subject to the requirements of the LSI regulation. Available at: <https://ww2.arb.ca.gov/sites/default/files/classic/msprog/offroad/orspark/faqs/lsifaqagse.pdf>. Accessed: April 2025.
- ^b The CARB Offroad Diesel (ORD) regulation exempts permanent and year-by-year low-use vehicles as defined in CCR § 2449 (e)(7). Available at: <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/off-roaddiesel/froa-1.pdf>. Accessed: April 2025.
- ^c The CARB LSI regulation's definition for airport GSE does not include those categories of GSE equipment that are less than 25 horsepower, per CCR § 2775 (a)(1). Available at: <https://ww2.arb.ca.gov/sites/default/files/classic/msprog/offroad/orspark/largesparkappa-clean.pdf>. Accessed: April 2025.

Table 4. ONT 2017 and 2024 GSE Inventory

Ontario Airport MOU

Ontario, California

Fuel Type	Breakdown	2017	2024 GSE Inventory³
Diesel ^{1,4}	Less than 50 HP	--	0
	Tier 0	6	3
	Tier 1	32	11
	Tier 2	19	7
	Tier 3	28	23
	Tier 4 Interim	87	5
	Tier 4 Final		109
	Total Count	172	158
Electric	Total Count	128	121
Gasoline ²	MY <2001	128	14
	MY 2001 - 2006		13
	MY 2007 - 2009		22
	MY ≥2010		194
	Total Count	315	243
Total Equipment		615	522

Notes:

¹ If diesel engine tier information was not provided by the owner/operator, tier was assumed to be in line with CARB's Non-road Diesel Engine Certification Tier Chart based on MY and HP. Available at: <https://ww2.arb.ca.gov/resources/documents/non-road-diesel-engine-certification-tier-chart>.

² Gasoline-fueled equipment are broken down according to model years specified in the Off-Road Large Spark-Ignition (LSI) Engine regulations. Available at: <https://ww2.arb.ca.gov/large-spark-ignition-engine-regulatory-and-certification-documents>.

³ These counts reflect GSE equipment items that remain in use as of 12/31/2024. On-road equipment units are excluded from these counts.

⁴ Equipment with an engine power rating lower than 50 HP were not previously reported for CY 2017. However, for CY 2024 they are being reported as an individual category.