I. PROJECT DESCRIPTION:

FACILITY NAME: AT&T MOBILITY

LOCATION: 1931 Arena Blvd, Sacramento, CA, 95834

PROPOSAL: Authority to Construct and Permit to Operate a diesel-fired emergency standby generator.

INTRODUCTION: AT&T MOBILITY is a wireless service provider. AT&T MOBILITY is seeking an Authority to Construct and a Permit to Operate a diesel fired emergency standby generator which will be installed at the location mentioned above.

EQUIPMENT DESCRIPTION: Emergency standby engine.

Make: Generac
Model: SD050
Serial No.: TBD
Engine HP: 86 BHP
Fuel Type: Diesel
Displacement: 207.48 in³
Engine Family: HKMCL3.41D43-001
Model Year: 2017

PROCESS RATE/FUEL USAGE:

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Diesel Fuel Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gallons/Hour (A)</td>
</tr>
<tr>
<td>Generac SD050 86 HP Engine</td>
<td>4.3</td>
</tr>
</tbody>
</table>

(A) Based on full standby load operation and using submitted Manufacturer Data.

OPERATING SCHEDULE: This application is for a standby emergency engine. For purposes of establishing the applicable BACT determination and for ensuring compliance with the ATCM for Stationary Compression Ignition Engines (Title 17, CCR, §93115), engine operation will be limited to 50 hours per year for maintenance and 24 hours per day, 200 hours per quarter and 200 hours per year for total use (maintenance and actual emergency operation). Twenty four hours a day is reasonable because it is an emergency engine and may in fact operate 24 hours per day.
CONTROL EQUIPMENT EVALUATION: The engine is certified to Tier 3 non-road emission standards.

II. EMISSIONS CALCULATIONS:

1. HISTORIC POTENTIAL EMISSIONS: The equipment is being evaluated as a new emission unit; therefore its Historic Potential Emissions are as follows (Rule 202, §225):

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Daily Historic Potential Emissions</th>
<th>Quarterly Historic Potential Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>0 lb/day</td>
<td>0 lb/qtr</td>
</tr>
<tr>
<td>NOx</td>
<td>0 lb/day</td>
<td>0 lb/qtr</td>
</tr>
<tr>
<td>SOx</td>
<td>0 lb/day</td>
<td>0 lb/qtr</td>
</tr>
<tr>
<td>PM10</td>
<td>0 lb/day</td>
<td>0 lb/qtr</td>
</tr>
<tr>
<td>PM2.5</td>
<td>0 lb/day</td>
<td>0 lb/qtr</td>
</tr>
<tr>
<td>CO</td>
<td>0 lb/day</td>
<td>0 lb/qtr</td>
</tr>
</tbody>
</table>

2. PROPOSED POTENTIAL TO EMIT: This application is for a standby emergency engine. During emergency episodes it can operate for up to 24 hr/day and for a maximum of 200 hours in a quarter or year, including both maintenance and emergency. Therefore, its Potential to Emit will be calculated assuming the engine operates (i) 24 hours per day, (ii) 200 hours per calendar quarter, and (iii) 200 hours per year. Refer to Appendix A – Emissions Calculations.

Emissions are calculated using the following equation:

\[ PTE = \frac{EF \times HP \times Hrs}{U_{CF}} \]

Where
- PTE = Potential to Emit (lb/day, lb/qtr, lb/yr)
- EF = Emission Factor (g/hp-hr)
- HP = Horse Power of engine
- Hrs = Maximum hours of operation (hrs/day, hrs/qtr, hrs/yr)
- \( U_{CF} \) = Unit conversion factor (453.6 g/lb)
III. COMPLIANCE WITH RULES AND REGULATIONS:

1. H&S § 42301.6 (AB 3205) COMPLIANCE: The proposed project is located within 1,000 feet of the outer boundary of one K-12 school: Natomas Christian School (1921 Arena Blvd, Sacramento, CA, 95834). Furthermore, in accordance with CH&S §42301.6(b), a survey of additional schools located within a quarter mile was performed but none were identified. Therefore, the public noticing requirement of AB 3205 [CH&S §42301.6] applies to the proposed project. To comply with this requirement, a Public Notice shall be distributed to the parents or guardians of students attending Natomas Christian School and to all residents and businesses located within 1,000 feet of the source. A thirty-day comment period will be required prior to issuance of an Authority to Construct. Refer to Appendix D – Public Notice.

2. NSR COMPLIANCE:

   **Rule 202 – New Source Review**

   **Section 301 – Best Available Control Technology**

   BACT is triggered for any pollutant for which the emission increase (BACT_EI) calculated pursuant to Rule 202, Section 411.1 exceeds the levels specified below. For purposes of this calculation, the difference is done using tenths, then the difference is rounded to an integer using standard rounding convention (round up if greater than or equal to 0.5):

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factors (A) (g/hp-hr)</th>
<th>Potential to Emit (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>lb/day</td>
</tr>
<tr>
<td>VOC (C)</td>
<td>1.14</td>
<td>5.2</td>
</tr>
<tr>
<td>NOx (C)</td>
<td>3.0</td>
<td>13.7</td>
</tr>
<tr>
<td>SOx</td>
<td>0.005</td>
<td>0.0</td>
</tr>
<tr>
<td>PM10</td>
<td>0.17</td>
<td>0.8</td>
</tr>
<tr>
<td>PM2.5</td>
<td>0.17</td>
<td>0.8</td>
</tr>
<tr>
<td>CO</td>
<td>3.7</td>
<td>16.8</td>
</tr>
<tr>
<td>GHG</td>
<td>519</td>
<td>1.2 tons/day</td>
</tr>
<tr>
<td>Lead</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

(A) Emission factors for VOC and NOx are based on the District’s BACT standards (Tier 3 standard). CO emission factor is based on the certified level for a Tier 3 engine. PM10 and PM2.5 emission factors include both the condensable portion and the filterable portion of the particulates. The filterable portion is based on the ATCM standard and the condensable portion is derived using the condensable to filterable fraction, taken from AP-42, Table 3.4-2 (10/96), multiplied by the certification standard ((0.15 g/hp-hr + 0.15 g/hp-hr *0.0077/0.0496)=0.17 g/hp-hr). SOx emission factor is based on AP-42, Table 3.3-1 (10/96) using a fuel sulfur content of 15 ppm. GHG emission factor is expressed as CO2e and is from EPA’s Mandatory Reporting of Greenhouse Gases Rule (78 FR 71948, Nov. 29, 2013), Tables C-1 & C-2.

(B) Emissions are based on 86 BHP, 24 hours/day, 200 hours/quarter and 200 hours/year of operation. All emission limits are in English units.

(C) The engine is required to comply with the combined NOx + VOC emission standard. For the purpose of calculating NOx and VOC individually, VOC emissions are assessed at the worst case scenario of the uncontrolled AP-42 emission factor of 1.14 g/bhp-hr and NOx emissions are assessed at the worst case limit of 3.0 g/bhp-hr.
BACT is triggered if:

\[ \text{BACT}_{EI} > \text{BACT}_{TL} \]

Where:

- \( \text{BACT}_{EI} \) = Emissions Increase = \( \text{DPE} - \text{DHPE} \)
- \( \text{DPE} \) = Daily Potential Emissions (from Section II.2)
- \( \text{DHPE} \) = Daily Historic Potential Emissions (from Section II.1)

\[
\begin{align*}
\text{BACT}_{TL} &= \text{Pollutant} \quad \text{BACT}_{TL} \\
\text{VOC} &= 0 \text{ lb/day} \\
\text{NOx} &= 0 \text{ lb/day} \\
\text{SOx} &= 0 \text{ lb/day} \\
\text{CO} &= 550 \text{ lb/day} \\
\text{PM}_{10} &= 0 \text{ lb/day} \\
\text{PM}_{2.5} &= 0 \text{ lb/day} \\
\text{Lead} &= 3.3 \text{ lb/day}
\end{align*}
\]

**Determination of BACT Applicability:**

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>DPE (lb/day)</th>
<th>DHPE</th>
<th>( \text{BACT}_{EI} ) (lb/day)</th>
<th>( \text{BACT}_{TL} ) (lb/day)</th>
<th>Is BACT Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>5.2</td>
<td>0</td>
<td>5</td>
<td>&gt;0</td>
<td>Yes</td>
</tr>
<tr>
<td>NOx</td>
<td>13.7</td>
<td>0</td>
<td>14</td>
<td>&gt;0</td>
<td>Yes</td>
</tr>
<tr>
<td>SOx</td>
<td>0.02</td>
<td>0</td>
<td>0</td>
<td>&gt;0</td>
<td>No</td>
</tr>
<tr>
<td>PM10</td>
<td>0.8</td>
<td>0</td>
<td>1</td>
<td>&gt;0</td>
<td>Yes</td>
</tr>
<tr>
<td>PM2.5</td>
<td>0.8</td>
<td>0</td>
<td>1</td>
<td>&gt;0</td>
<td>Yes</td>
</tr>
<tr>
<td>CO</td>
<td>16.8</td>
<td>0</td>
<td>17</td>
<td>&gt;550</td>
<td>No</td>
</tr>
<tr>
<td>Lead</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>&gt;3.3</td>
<td>No</td>
</tr>
</tbody>
</table>

The proposed NOx, VOC, PM10, and PM2.5 emissions exceed the BACT trigger levels specified in this section and are therefore subject to BACT.

SMAQMD’s BACT Determination for standby IC engines with a rating of greater or equal to 50 BHP (see Appendix C – BACT Determination No. 116) was last reviewed on 02/11/16. Since less than two years have passed since the time the of the last BACT review and the time the application was deemed complete, and the SMAQMD is not aware of any significant changes to BACT requirements for engines in this size category, this BACT determination will be considered current and valid for this permit application.
Determination of Compliance with BACT Requirements:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>District BACT Standard BACT No. 116 (g/hp-hr)</th>
<th>Manufacturer’s Emissions Data (A) (g/hp-hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC + NOx (C)</td>
<td>3.0</td>
<td>2.78</td>
</tr>
<tr>
<td>SOx</td>
<td>0.005 Fuel with &lt; 0.0015% sulfur content by weight</td>
<td>Not applicable, This engine does not trigger BACT</td>
</tr>
<tr>
<td>PM10 (B)</td>
<td>0.15</td>
<td>0.11</td>
</tr>
<tr>
<td>PM2.5 (B)</td>
<td>0.15</td>
<td>0.11</td>
</tr>
<tr>
<td>CO</td>
<td>3.7</td>
<td>2.61</td>
</tr>
</tbody>
</table>

(A) Based on Generac Exhaust Emission Data Sheet: SD050. The District does not use manufacturer's data as BACT because the data is for an engine family and it is not engine specific and does not account for degradation, variability and other factors.

(B) Based on filterable PM only.

(C) For purposes of VOC and NOx compliance the District uses the VOC+NOx certification standard for standby engines.

The manufacturer’s emissions data for the Generac SD050 diesel engine for VOC, NOx, SOx, PM10, and PM2.5 demonstrate compliance with the BACT standards. The permit will require that the owner/operator only use fuel that contains less than 0.0015% sulfur by weight (CARB Diesel Fuel), which meets the BACT standard for SOx.

Section 302 – Offsets Emergency electrical generating, flood control, and firefighting equipment are exempt from the requirement to provide emission offsets by Section 110 provided the following conditions are met:

1. The installation of the equipment will not result in a major modification or be a major stationary source, in and of itself, and
2. Operation for maintenance purposes is limited to 100 hours per year (engine will be limited to 50 hours per year for T-BACT compliance), and such maintenance must be scheduled in cooperation with the District so as to limit air quality impact, and
3. Operation of the equipment must be limited to a total of 200 hours per year, and
4. The equipment is not used to supply power to a serving utility for distribution on the grid, and
5. Operation is limited to maintenance operation, emergency operation to supply power when there is an actual interruption of electrical power from the serving utility or emergency water pumping for flood control, firefighting, potable water pumping, or sewage pumping.

Conditions will be placed on the Authority to Construct and Permit to Operate indicating these limitations.

The following are the permitted emission units at the Stationary Source and the criteria pollutant quarterly permitted emissions:

All units at this facility/stationary source were installed after January 1, 1977.
### STATIONARY SOURCE POTENTIAL TO EMIT FOR VOC AND NO\textsubscript{x} (SAME FOR ALL 4 QUARTERS)

<table>
<thead>
<tr>
<th>Permit No.</th>
<th>Emissions Unit</th>
<th>Stationary Source Potential to Emit (lb/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/C 25330</td>
<td>IC Engine Standby (86 BHP)</td>
<td>VOC: 43</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO\textsubscript{x}: 114</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>VOC: 43</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NO\textsubscript{x}: 114</td>
</tr>
<tr>
<td></td>
<td>Offset Trigger Level</td>
<td>≥5,000</td>
</tr>
</tbody>
</table>

### STATIONARY SOURCE POTENTIAL TO EMIT FOR SO\textsubscript{x}, PM10, PM2.5, AND CO (SAME FOR ALL 4 QUARTERS)

<table>
<thead>
<tr>
<th>Permit No.</th>
<th>Emissions Unit</th>
<th>Stationary Source Cumulative Emission Increase Since 01-01-77 (ton/year)</th>
<th>(lb/quarter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/C 25330</td>
<td>IC Engine Standby (86 BHP)</td>
<td>PM2.5: 0.003</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SO\textsubscript{x}: 0</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM10: 6</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CO: 140</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>PM2.5: 0.003</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SO\textsubscript{x}: 0</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM10: 6</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>Offset Trigger Level</td>
<td>≥15</td>
<td>≥13,650</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PM10: 6</td>
<td>≥7,300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CO: 140</td>
<td>≥49,500</td>
</tr>
</tbody>
</table>

**Section 308 – CEQA**  
The California Environmental Quality Act (CEQA) is a statute that requires state and local agencies to identify the significant adverse environmental impacts of their actions and to avoid or mitigate those impacts to the extent feasible. The first step in the review of projects subject to CEQA is to determine if the project is exempt from CEQA.

The State CEQA Guidelines (SCG) provides that, “Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.”  (SCG §15061(b)(3)) Based on the environmental analysis below staff have concluded that the project is exempt from CEQA because there is no possibility that the project will have a significant adverse effect on the environment.
As shown in the table below, the project’s operational phase emissions, or permitted emission limits are well below the SMAQMD Thresholds of Significance.

<table>
<thead>
<tr>
<th>Pollutant/Hazard</th>
<th>Threshold</th>
<th>Project Total (D)</th>
<th>Rounded Project Total (B)</th>
<th>Less than Standard?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx (ozone precursor)</td>
<td>65 lb/day</td>
<td>0.6 lb/day</td>
<td>1 lb/day</td>
<td>Yes</td>
</tr>
<tr>
<td>VOC (ozone precursor)</td>
<td>65 lb/day</td>
<td>0.2 lb/day</td>
<td>0 lb/day</td>
<td>Yes</td>
</tr>
<tr>
<td>PM10 (A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>82 lb/day</td>
<td>0.0 lb/day</td>
<td>0 lb/day</td>
<td>Yes</td>
</tr>
<tr>
<td>Annual</td>
<td>15 tons/year</td>
<td>0.0008 tons/year</td>
<td>0 tons/year</td>
<td>Yes</td>
</tr>
<tr>
<td>PM2.5 (A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily</td>
<td>80 lb/day</td>
<td>0.0 lb/day</td>
<td>0 lb/day</td>
<td>Yes</td>
</tr>
<tr>
<td>Annual</td>
<td>14.6 tons/year</td>
<td>0.0008 tons/year</td>
<td>0 tons/year</td>
<td>Yes</td>
</tr>
<tr>
<td>Cancer Risk (per million)</td>
<td>10</td>
<td>1.7 (C)</td>
<td>2 (C)</td>
<td>Yes</td>
</tr>
<tr>
<td>Acute Non-Cancer Health Hazard</td>
<td>1.0</td>
<td>N/A (C)</td>
<td>N/A (C)</td>
<td>N/A</td>
</tr>
<tr>
<td>Chronic Non-Cancer Health Hazard</td>
<td>1.0</td>
<td>0.00015 (C)</td>
<td>0 (C)</td>
<td>Yes</td>
</tr>
<tr>
<td>GHG as CO2e</td>
<td>Operational Phase</td>
<td>10,000 metric tons/year</td>
<td>2.23 metric tons/year</td>
<td>Yes</td>
</tr>
</tbody>
</table>

(A) Operational phase CEQA significance threshold for PM10 and PM2.5 is zero (0) for projects that fail to apply all feasible BACT. The thresholds for projects that apply all feasible BACT is 82 lb/day and 15 ton/year for PM10 and 80 lb/day and 14.6 ton/year for PM2.5.

(B) The District uses conventional rounding methods to determine what numbers round to zero. For BACT purposes the District has determined that an emissions level of 0.49 lb/day rounds to 0. Using this same methodology, the emissions from this operation are rounded to 0 lb PM10, PM2.5/day and 0 ton PM10, PM2.5/year.

(C) See Health Risk Assessment analysis under Rule 402 in Sec. 3. Prohibitory Rule Compliance.

(D) For emergency equipment, operational phase emissions are based on predictable maintenance operation and do not include unforeseen emergency episodes. Typical daily maintenance hours on emergency engines are one hour/day.

In addition to the exemption from CEQA for a project that demonstrates no possibility of a significant effect on the environment, CEQA review is also exempt for permitting actions that are considered ministerial. Under the District “Guidance Document, Permit Actions and CEQA Applicability,” section 5.1.1(f), issuance of an ATC is considered ministerial unless it requires the establishment of a new BACT standard. This project does not require a new BACT standard but rather relied on an existing BACT standard published in the District’s BACT Clearinghouse (No. 116), thus making the permitting action ministerial and exempt from CEQA.

Therefore, upon approval of the project, the SMAQMD will issue the Authority to Construct and file a Notice of Exemption with the Sacramento County Clerk. The notice will be posted for 35 days and the evaluation and Authority to Construct will be made available for public inspection.
Section 406 – Submittal of BACT Determinations: This permit action relied on an existing BACT determination already published on SMAQMD’s BACT Clearinghouse. Therefore, this section does not apply.

Rule 203 – Prevention of Significant Deterioration

A source or modification triggers PSD if:
- Its potential to emit any one pollutant is greater than or equal to 100 tons/year if it is one of the 28 selected industrial categories in 42 U.S.C. Section 7479 (1), or greater than or equal to 250 tons/year for all other categories; or
- It is part of a major stationary source and the project’s net emissions increase for any pollutant will be greater than the significance levels listed below:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Level of Significance (Tons/Yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>100</td>
</tr>
<tr>
<td>NOx</td>
<td>40</td>
</tr>
<tr>
<td>SOx</td>
<td>40</td>
</tr>
<tr>
<td>PM</td>
<td>25</td>
</tr>
<tr>
<td>PM10</td>
<td>15</td>
</tr>
<tr>
<td>PM2.5</td>
<td>10 (PM2.5) or 40 (SO₂) or 40(NO)</td>
</tr>
<tr>
<td>Ozone</td>
<td>40 of NOx or VOCs</td>
</tr>
<tr>
<td>Lead</td>
<td>0.6</td>
</tr>
<tr>
<td>Fluorides</td>
<td>3</td>
</tr>
<tr>
<td>Sulfuric acid mist</td>
<td>7</td>
</tr>
<tr>
<td>H₂S</td>
<td>10</td>
</tr>
<tr>
<td>Total reduced sulfur (including H₂S)</td>
<td>10</td>
</tr>
<tr>
<td>Reduced sulfur compounds (including H₂S)</td>
<td>10</td>
</tr>
<tr>
<td>Greenhouse Gases (CO₂e)</td>
<td>75,000</td>
</tr>
</tbody>
</table>

There are no emissions sources at the facility that appear to have the potential to emit over 100 or 250 tons per year, and as demonstrated in Section II.2, the emissions from this engine are so low they would not cause the facility to exceed the threshold when analyzed cumulatively. Since this is not a major source, it is not necessary to consider the major modification significance levels, but nonetheless, Section II.2 indicates that annual emissions are well below the levels of significance.

Rule 214 – Federal New Source Review

This rule does not apply because this permit action is not for a new major stationary source or a modification at an existing major stationary source.
Rule 217 – Public Notice Requirements for Permits

Sections 401-402 – CARB, EPA, and Public Notification: The public noticing requirements of Rule 217 do not apply if:
- Offsets are not required under Rule 202, Section 302.
- A visibility analysis is not required under Rule 214, Section 413.
- The increase in potential to emit for the project, calculated under Section 403 of Rule 217, is below the following limits:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>lb/qtr</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>5,000</td>
</tr>
<tr>
<td>NOx</td>
<td>5,000</td>
</tr>
<tr>
<td>SOx</td>
<td>9,200</td>
</tr>
<tr>
<td>PM10</td>
<td>7,300</td>
</tr>
<tr>
<td>PM2.5</td>
<td>10 TPY</td>
</tr>
<tr>
<td>CO</td>
<td>49,500</td>
</tr>
</tbody>
</table>

Analysis:
- As determined in Section III.2, offsets are not required.
- This permit action is not subject to Rule 214, so the visibility analysis required by Section 413 of Rule 214 is inapplicable.
- As shown below, the increase in potential to emit does not exceed the notification exemption thresholds.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Potential to Emit for the Project</th>
<th>Increase in PTE</th>
<th>Notification Threshold</th>
<th>Notification Required?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-Application</td>
<td>Post-Application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC</td>
<td>0</td>
<td>43 lb/qtr</td>
<td>≥ 5,000</td>
<td>No</td>
</tr>
<tr>
<td>NOx</td>
<td>0</td>
<td>114 lb/qtr</td>
<td>≥ 5,000</td>
<td>No</td>
</tr>
<tr>
<td>SOx</td>
<td>0</td>
<td>0 lb/qtr</td>
<td>≥ 9,200</td>
<td>No</td>
</tr>
<tr>
<td>PM10</td>
<td>0</td>
<td>6 lb/qtr</td>
<td>≥ 7,300</td>
<td>No</td>
</tr>
<tr>
<td>PM2.5</td>
<td>0</td>
<td>0.003 TPY</td>
<td>≥ 10 TPY</td>
<td>No</td>
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<tr>
<td>CO</td>
<td>0</td>
<td>140 lb/qtr</td>
<td>≥ 49,500</td>
<td>No</td>
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</table>

3. PROHIBITORY RULE COMPLIANCE:

Rule 401 – Ringelmann Chart

The permit will include conditions requiring that the IC engine comply with the Ringelmann No. 1 or 20% opacity standard and in the District’s experience, properly maintained engines are able to meet the requirement. The equipment will be inspected prior to the issuance of the permit to operate and on a regular basis thereafter to ensure continuous compliance.
Authority to Construct Evaluation
A/C 25330
Page 10

**Rule 402 – Nuisance**

The District regulates emissions of toxics substances for engines under Rule 402, SMAQMD’s guidance document, Health Risk Management Programs For Existing, Modified and New Stationary Sources (March 24, 2016) and ATCM’s adopted by CARB.

The health risk action levels and results are summarized below:

<table>
<thead>
<tr>
<th>Health Risk Action Levels and Assessment Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Health Risk</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Cancer Risk (Chances per Million)</td>
</tr>
<tr>
<td>Acute Non-Cancer (Hazard Index)</td>
</tr>
<tr>
<td>Chronic Non-Cancer (Hazard Index)</td>
</tr>
</tbody>
</table>

<sup>(A)</sup> In certain circumstances, the District may allow a health risk in excess of the levels specified here. For more information, see SMAQMD’s guidance document, Health Risk Management Programs for Existing, Modified and New Stationary Sources (2016).

<sup>(B)</sup> Results have been rounded to one decimal place.

<sup>(C)</sup> Since the engine will be restricted from operating for maintenance purposes while school is in session, risk from engine operation to the school children is not evaluated and is assumed to be zero. The potential risk depicted here was calculated for a worker that might potentially be on site after school is in session when the engine is allowed to operate for maintenance purposes.

Diesel particulate matter (PM) has been identified as a carcinogen by the Office of Environmental Health Hazard Assessment (OEHHAA).

The following factors, formulas, and assumptions were taken into consideration in order to estimate the worst case excess cancer risk and the non-cancer health risks for the toxic pollutants emitted (summary of all the maximum concentrations for various receptors can be found in Appendix B – Health Risk Assessment).

The project’s emissions are modeled with the use of an EPA approved air dispersion model to determine the concentrations of toxic pollutants at residential and non-residential receptors surrounding the project. The model used for this analysis is Lakes Environmental's AERMOD View, Version 8.8.9. The following parameters were used as inputs to the model for each engine:

- Release Height: 7.25 feet
- Gas Exit Temperature: 1044 °F
- Stack Diameter: 2.5 in.
- Gas Exit Flow Rate: 448 acfm
- Nominal Emission Rate: 1.0 g/s

SMAQMD utilizes the California Air Resources Board's Hotspots Analysis and Reporting Program (HARP2), Version 16088 model which incorporates the health risk assessment methodologies from the “Risk Assessment Guidelines - Guidance Manual for Preparation of Health Risk Assessments” (February 2015).
CANCER RISK ASSESSMENT:

From equation 5.4.1.1 and 8.2.4 A:

\[
\text{Riskair} = \text{Cair} \times \frac{\text{BR}}{\text{BW}} \times A \times \text{EF} \times \text{CPF} \times \frac{\text{ED}}{\text{AT}} \times (10^{-6}) \times \text{GLC} \times \text{ASF} \times \text{FAH}
\]

Where:

Riskair = Cancer risk from inhalation exposure
Cair = Concentration ($\mu$g/m$^3$)
(BR/BW) = Breathing Rate/Body Weight
= 361 (l/kg-day) 95%, 3rd Trimester
= 1090 (l/kg-day) 95%, 0<2 yrs
= 631 (l/kg-day) 80%, 2<9 yrs
= 572 (l/kg-day) 80%, 2<16 yrs
= 261 (l/kg-day) 80%, 16<30 yrs
= 233 (l/kg-day) 80%, 16<70 yrs
= 230 (l/kg-day) 8 hr worker rate
A = Inhalation Absorption Factor (default = 1)
EF = Exposure Frequency
= 350 days for Residential
= 245 days for Non-Residential
CPF = Cancer Potency Factor (kg-day/mg)
ED = Exposure Duration
= 30 years for Residential
= 25 years for Non-Residential (worker and school)
Note: since the engine is restricted from operating for maintenance purposes during school hours, students would not be exposed to engine operation but school workers potentially would; therefore, the school was evaluated under a non-residential exposure duration.
AT = Averaging Time
= 25,550 days
ASF = Age sensitivity factor for a specified age group
= 0.85, 3rd Trimester
= 0.85, 0<2 yrs
= 0.72, 2<9 yrs
= 0.72, 2<16 yrs
= 0.73, 16<30 yrs
= 0.73, 16<70 yrs
(1E-06) = (mg/1000 ug)*($m^3$/1000 l)
GLC = Ground Level Adjustment Factor
= 1.0 for resident
= 4.2 (7/5 x 24/8) for worker for equipment that, although limited, operates during normal work hours
NON-CANCER RISK ASSESSMENT: The chronic non-cancer health risk is determined for a given pollutant by dividing the pollutant's annual average ambient air concentration (ug/m$^3$) by the chronic reference exposure level of that pollutant in order to obtain the chronic hazard index (HI). The acute non-cancer health risk is determined by dividing the pollutant's maximum hourly ambient air concentration (ug/m$^3$) by the acute reference exposure level in order to obtain the acute hazard index (HI). In addition, each contaminant can affect different organs of the body and several compounds may affect common organs. Therefore, when there are multiple toxic compounds involved, the effects are additive for the common organs.

A list of chronic or acutely hazardous air contaminants may be found at the OEHHA website www.oehha.ca.gov. The method of calculating the HI numbers (Risk Assessment Guidelines) is also found at this website.

HRA CONCLUSION: The health risk for this project is considered acceptable to the SMAQMD because:

- The evaluated cancer risk for a maximum exposed individual resident (MEIR) is 1.7 in one million, which is below the significant risk threshold. However, since the cancer risk exceeds 1 in one million, T-BACT will be required. The engine complies with T-BACT requirements of SMAQMD with the installation of a Tier 3 engine with a Diesel PM emission factor below 0.15 g/bhp-hr.
- The evaluated cancer risk for a maximum exposed individual worker (MEIW) is 0.8 in one million, which is below the significant risk threshold.
- The evaluated cancer risk for a maximum exposed school individual (MEIS) is 0.1 in one million, which is below the significant risk threshold.
- The evaluated noncancer Acute Hazard Index is less than one for the maximum exposed individual resident (MEIR) and the maximum exposed individual worker (MEIW).
- The evaluated noncancer Chronic Hazard Index is less than one for the maximum exposed individual resident (MEIR) and the maximum exposed individual worker (MEIW).

Rule 406 - Specific Contaminants

The proposed equipment is not expected to exceed the emissions limit of 0.2% by volume sulfur compound as SO$_2$ and 0.1 gr/dscf for combustion contaminants calculated to 12% CO$_2$.

<table>
<thead>
<tr>
<th>Diesel Fuel F-Factor</th>
<th>=</th>
<th>9190 dscf/mmBTU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molar Volume</td>
<td>=</td>
<td>385.3 ft$^3$/mol</td>
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<tr>
<td>Diesel HHV</td>
<td>=</td>
<td>19,300 BTU/lb</td>
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<tr>
<td>Conversion Factor</td>
<td>=</td>
<td>15.432 gr/g</td>
</tr>
<tr>
<td>PM10 Emission Factor</td>
<td>=</td>
<td>0.17 g/hp-hr</td>
</tr>
<tr>
<td>SO$_2$ Emission Factor</td>
<td>=</td>
<td>0.005 g/hp-hr</td>
</tr>
<tr>
<td>BSFC</td>
<td>=</td>
<td>7000 BTU/hp-hr</td>
</tr>
<tr>
<td>Weight % C in Diesel</td>
<td>=</td>
<td>87 % or 0.87 lb C/lb fuel</td>
</tr>
<tr>
<td>C to CO$_2$ Conversion Efficiency</td>
<td>=</td>
<td>0.99</td>
</tr>
</tbody>
</table>

PM10 Concentration (combustion contaminants):

A. Calculate uncorrected grain loading
   
   $= (0.17 \text{ g/hp-hr}) \times (15.432 \text{ gr/g}) \times (\text{hp-hr/7000 BTU}) \times (1\text{E6 BTU/mmBTU}) \times (\text{mmBTU/9190 dscf})$
B. Calculate CO₂ emission factor (lb CO₂/mmBTU) assuming 100% C to CO₂ conversion

\[ = (0.87 \text{ lb C/lb fuel}) \times (\text{mol C}/12 \text{ lb C}) \times (\text{mol CO₂/mol C}) \times (44 \text{ lb CO₂/mol CO₂}) \times (\text{lb fuel}/19300 \text{ BTU}) \times (1E6 \text{ BTU/mmBTU}) \]

\[ = 165.2849741 \text{ lb CO₂/mmBTU} \]

C. Calculate lb CO₂/mmBTU at 99% Conversion

\[ = 165.2849741 \text{ lb CO₂/mmBTU} \times 99\% \]

\[ = 163.6321244 \text{ lb CO₂/mmBTU} \]

D. Calculate volume % of CO₂ in Exhaust Gas

\[ = \% \text{ CO₂} \]

\[ = \text{mol CO₂/mol exhaust} \]

\[ = (163.6321244 \text{ lb CO₂/mmBTU}) \times (\text{mol CO₂}/44 \text{ lb CO₂}) \times (\text{mmBTU}/9190 \text{ dscf}) \times (385.3 \text{ dscf/mol exhaust}) \]

\[ = 0.155919125 \text{ mol CO₂/mol exhaust or 15.5919125} \% \text{ CO₂} \]

E. Calculate corrected grain loading

\[ = (0.04078097 \text{ gr/dscf}) \times (12\% \text{ CO₂/15.5919125} \% \text{ CO₂}) \]

\[ = 0.031 \text{ gr/dscf corrected to 12} \% \text{ CO₂} \]

**SO₂ Concentration** (% SO₂ by volume):

The following calculation is at 0% excess air which represents worst case.

\[ = (0.005 \text{ g/hp-hr}) \times (\text{lb SO₂}/453.6 \text{ g}) \times (\text{hp-hr}/7000 \text{ BTU}) \times (1E6 \text{ BTU/mmBTU}) \times (\text{mmBTU}/9190 \text{ dscf}) \]

\[ \times (\text{mol SO₂}/64 \text{ lb SO₂}) \times (385.3 \text{ dscf/mol exhaust}) \]

\[ = 0.000001032 \text{ mol SO₂/mol exhaust or 0.0001032} \% \text{ SO₂} \]

The rule emission limits for SO₂ and PM are 0.2% SO₂ by volume and 0.1 grains/cf at 12% CO₂, respectively. Therefore, the emissions from the engine comply with Rule 406.

**Rule 420 - Sulfur Content of Fuels**

This rule limits the sulfur content of fuel. It was last amended in 1981, and CARB has subsequently adopted more stringent standards, which limit the sulfur content of diesel no. 2 motor fuel @ <0.0015%S. The permit will include conditions limiting the use of fuel to CARB-approved fuels or alternative fuels that comply with the CARB regulations, which will ensure compliance with this Rule.

4. **NSPS COMPLIANCE:**

The list of all adopted New Source Performance Standards as listed in 40 CFR 60 (http://yosemite.epa.gov/r9/r9npsp.nsf/ViewStandards?ReadForm&Part=60) were reviewed to determine if the proposed project is subject to one or more of these regulations. One applicable provision was identified:

**SUBPART IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines** are applicable to any of the following:

A. Engines with a displacement of less than 30 liters per cylinder where the model year is 2007 or later for non-fire pump engines and the model year listed in Table 3 of this subpart for fire pump engines.

B. Owners or operators of engines that commence construction after July 11, 2005 where the engine is manufactured after April 1, 2006 for a non-fire pump engine or for engines manufactured as a certified National Fire Protection Association (NFPA) fire pump after July 1, 2006.
C. Owners and operators of engines that modify or reconstruct their engine after July 11, 2005.

The engine was manufactured in 2017 and has a displacement of less than 30 liters per cylinder, therefore, the engine is subject to subpart IIII.

NSPS requirements and Analysis:
A. The engine must meet the non-road standard in Table 1 of 40 CFR 60.89.112 that is applicable to the engine size and year of manufacture. The engine meets this requirement because it has been certified to the tier 3 standard.
B. The fuel used must meet the requirements specified in 40 CFR 80.510(b). The engine meets this requirement because the permit will be conditioned to limit fuels used to CARB diesel and CARB diesel complies with the federal fuel specification.
C. The engine must have an hour meter installed. The permit will include a condition requiring an hour meter.
D. This NSPS limits engine operation for maintenance purposes to 100 hours per year. The permit will include a condition limiting engine operation to 50 hours per year for maintenance purposes.

5. NESHAP COMPLIANCE:
NESHAPs under 40 CFR, Part 61: The list of all adopted National Emission Standards for Hazardous Air Pollutants (http://yosemite.epa.gov/r9/r9nsps.nsf/ViewStandards?ReadForm&Part=61) were reviewed to determine if the proposed project is subject to one or more of these regulations. There are currently no 40 CFR, Part 61 NESHAPs applicable to this source category.

NESHAPs under 40 CFR, Part 63: The District has not requested nor obtained delegation of Part 63 NESHAPs. However, these NESHAPS are being enforced as state Air Toxic Control Measures (ATCMs) pursuant to Health and Safety Code, Sections 39658(b) and 39666(d). The list of all adopted National Emission Standards for Hazardous Air Pollutants (http://yosemite.epa.gov/r9/r9nsps.nsf/ViewStandards?ReadForm&Part=63) were reviewed to determine if the proposed project is subject to one or more of these regulations. One applicable provision was identified:

Subpart ZZZZ – National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at both major and area sources of HAP emissions.

The engine is subject to this part because it is considered a new RICE since construction will be commenced after June 12, 2006 at an area source.

The requirements of this NESHAP subpart require the engine to comply with the emission requirements specified in 40 CFR 60 Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines). As mentioned above this engine complies with these requirements because it is certified to the appropriate standard, will utilize CARB diesel, and will have an hour meter installed.

6. ATCM COMPLIANCE: The list of all adopted Airborne Toxic Control Measures (http://www.arb.ca.gov/toxics/atcm/atcm.htm) was reviewed to determine if the proposed project is subject to one or more of these regulations.
Airborne Toxic Control Measure For Stationary Compression Ignition Engines (Title 17, CCR Sections 93115-93115.15): The engine is stationary, greater than 50 hp, utilizes a compression ignition power cycle, and is therefore subject to this rule. To comply with this rule, the permit will contain conditions requiring that the engine meet a PM emission rate of 0.15 g/hp-hr or less, limit other criteria pollutants to EPA Tier 3 levels, operate no more than 50 maintenance hours per year and 200 total hours per year, monitor usage with a non-resetting 4 digit totalizer, and operate with CARB verified diesel fuel. The operator will be required to maintain monthly records that document operating hours and fuel deliveries.

IV. RECOMMENDATION: This IC engine will comply with all applicable District rules and regulations. An authority to construct a diesel fired emergency standby engine generator should be issued to AT&T MOBILITY with the following conditions.

Refer to conditions in Authority to Construct No. A/C 25330

REVIEWED BY: [Signature] DATE: 10-3-17

APPROVED BY: [Signature] DATE: 10/4/17
Appendix A
Emission Calculations
<table>
<thead>
<tr>
<th></th>
<th>EF(g/hp)</th>
<th>HP</th>
<th>hr/day</th>
<th>hr/quarter</th>
<th>hr/year</th>
<th>g/lb</th>
<th>DAY Emit</th>
<th>QTR Emit</th>
<th>Year Emit</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>1.14</td>
<td>86</td>
<td>24</td>
<td>200</td>
<td>200</td>
<td>453.59</td>
<td>5.2</td>
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<td>86</td>
<td>24</td>
<td>200</td>
<td>200</td>
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<td>13.7</td>
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<td>NOx+VOC</td>
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<td>24</td>
<td>200</td>
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## PTE Maintenance

**AC:** 25330

<table>
<thead>
<tr>
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<th>HP</th>
<th>hr/day</th>
<th>hr/quarter</th>
<th>hr/year</th>
<th>g/lb</th>
<th>DAY Emit</th>
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Emission Calculations for Greenhouse Gases

GHG Emission Calculations for Permit Number: 25330

Step 1. Select a Fuel from the pull-down menu: Diesel

Step 2. Enter Fuel Consumption in (select from the pull-down menu): hp-hr

Step 3. Enter the total hp-hr for the engine (hp x hrs)

<table>
<thead>
<tr>
<th>Period</th>
<th>Fuel Usage (hp-hr)</th>
<th>CO2e Emissions (in short tons)</th>
<th>Units</th>
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<tbody>
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<td>Daily</td>
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<td>tons/day</td>
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<td>1st Qtr</td>
<td>17,200</td>
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<td>tons/quarter</td>
</tr>
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<td>2nd Qtr</td>
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<td>Annual</td>
<td>17,200</td>
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Appendix B
Health Risk Assessment
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**MAXIMALLY EXPOSED INDIVIDUAL WORKER - SCHOOL DRIVER**

**CANCER RISK - SCENARIO: 2501CancerDerived**

**PATHWAY BREAKDOWN**

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<th>CONC</th>
<th>INH</th>
<th>SOIL</th>
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<th>MILK</th>
<th>WATER</th>
<th>FISH</th>
<th>CROP</th>
<th>REEF</th>
<th>DAIRY</th>
<th>PIG</th>
<th>CHICKEN</th>
<th>EGG</th>
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<th>2ND DRIVER</th>
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</tbody>
</table>

**NOHCANCER HAZARD INDEX - SCENARIO: NonCancerChronicDerived**

**PATHWAY BREAKDOWN (DOSE)**

<table>
<thead>
<tr>
<th>RECV</th>
<th>X</th>
<th>Y</th>
<th>POLID</th>
<th>CONC</th>
<th>INH</th>
<th>SOIL</th>
<th>DERMAL</th>
<th>MILK</th>
<th>WATER</th>
<th>FISH</th>
<th>CROP</th>
<th>REEF</th>
<th>DAIRY</th>
<th>PIG</th>
<th>CHICKEN</th>
<th>EGG</th>
<th>1ST DRIVER</th>
<th>2ND DRIVER</th>
<th>3RD DRIVER</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>85</td>
<td>630068.74</td>
<td>4278716.38</td>
<td>9536</td>
<td>0.00004933</td>
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</tr>
</tbody>
</table>

**NOHCANCER HAZARD INDEX - SCENARIO: NonCancerAcute**

**PATHWAY BREAKDOWN (DOSE)**

<table>
<thead>
<tr>
<th>REVC</th>
<th>X</th>
<th>Y</th>
<th>POLID</th>
<th>CONC</th>
<th>INH</th>
<th>SOIL</th>
<th>DERMAL</th>
<th>MILK</th>
<th>WATER</th>
<th>FISH</th>
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<th>PIG</th>
<th>CHICKEN</th>
<th>EGG</th>
<th>1ST DRIVER</th>
<th>2ND DRIVER</th>
<th>3RD DRIVER</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>85</td>
<td>630068.74</td>
<td>4278716.38</td>
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</tbody>
</table>

**HAZARD INDEX BY TARGET ORGAN**

*HARP - HRACalc v1.0313.9/2017-3:32:36 PM - Cancer Risk - Input File: L:\SPE\FOLDER1\Modeling\2500o20-254959\25330\25330school\Input\25330school\Input.hpa
<table>
<thead>
<tr>
<th>REC</th>
<th>X</th>
<th>Y</th>
<th>POLID</th>
<th>CONC</th>
<th>PATHWAY BREAKDOWN</th>
<th>DRIVER</th>
<th>RISK TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>626967.75</td>
<td>4278976.99</td>
<td>9901</td>
<td>0.0007554</td>
<td>NA</td>
<td>NA</td>
<td>1.08E-06</td>
</tr>
</tbody>
</table>

**NONCANCER HAZARD INDEX - SCENARIO: NonCancerDerived**
*HAP - HRAC2 v1.2023/2017 3:45:26 PM - Cancer Risk - Input file: L:\S500 FOLDERS\Models\25000-25499\25300\253300\meta\25330000\HRAC2.xml*  

<table>
<thead>
<tr>
<th>REC</th>
<th>X</th>
<th>Y</th>
<th>POLID</th>
<th>CONC</th>
<th>PATHWAY BREAKDOWN</th>
<th>DRIVER</th>
<th>RISK TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>120</td>
<td>626967.75</td>
<td>4278976.99</td>
<td>9901</td>
<td>0.0007554</td>
<td>NA</td>
<td>NA</td>
<td>1.08E-06</td>
</tr>
</tbody>
</table>

**NONCANCER HAZARD INDEX - SCENARIO: NonCancerAcute**
*HAP - HRAC2 v1.2023/2017 3:45:26 PM - Cancer Risk - Input file: L:\S500 FOLDERS\Models\25000-25499\25300\253300\meta\25330000\HRAC2.xml*  

<table>
<thead>
<tr>
<th>REC</th>
<th>X</th>
<th>Y</th>
<th>POLID</th>
<th>CONC</th>
<th>PATHWAY BREAKDOWN</th>
<th>DRIVER</th>
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</thead>
<tbody>
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<td>120</td>
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<td>4278976.99</td>
<td>9901</td>
<td>0.0007554</td>
<td>NA</td>
<td>NA</td>
<td>1.08E-06</td>
</tr>
</tbody>
</table>

**CANCER RISK - SCENARIO: IDyyCancerDerived**
*HAP - HRAC2 v1.2023/2017 3:45:26 PM - Cancer Risk - Input file: L:\S500 FOLDERS\Models\25000-25499\25300\253300\meta\25330000\HRAC2.xml*  

<table>
<thead>
<tr>
<th>REC</th>
<th>X</th>
<th>Y</th>
<th>POLID</th>
<th>CONC</th>
<th>PATHWAY BREAKDOWN</th>
<th>DRIVER</th>
<th>RISK TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
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<td>9901</td>
<td>0.0007554</td>
<td>NA</td>
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<td>1.08E-06</td>
</tr>
</tbody>
</table>

**NONCANCER HAZARD INDEX - SCENARIO: NonCancerAcute**
*HAP - HRAC2 v1.2023/2017 3:45:26 PM - Cancer Risk - Input file: L:\S500 FOLDERS\Models\25000-25499\25300\253300\meta\25330000\HRAC2.xml*  

<table>
<thead>
<tr>
<th>REC</th>
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<th>Y</th>
<th>POLID</th>
<th>CONC</th>
<th>PATHWAY BREAKDOWN</th>
<th>DRIVER</th>
<th>RISK TOTAL</th>
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</thead>
<tbody>
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<td>1.08E-06</td>
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</table>

**CANCER RISK - SCENARIO: IDyyCancerDerived**
*HAP - HRAC2 v1.2023/2017 3:45:26 PM - Cancer Risk - Input file: L:\S500 FOLDERS\Models\25000-25499\25300\253300\meta\25330000\HRAC2.xml*  

<table>
<thead>
<tr>
<th>REC</th>
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<th>Y</th>
<th>POLID</th>
<th>CONC</th>
<th>PATHWAY BREAKDOWN</th>
<th>DRIVER</th>
<th>RISK TOTAL</th>
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</thead>
<tbody>
<tr>
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<td>9901</td>
<td>0.0007554</td>
<td>NA</td>
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<td>1.08E-06</td>
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XBADJ STCK1  0.00  0.00  0.00  0.00  0.00  0.00  0.00
XBADJ STCK1  29.63  -30.04  0.00  0.00  0.00  0.00  0.00
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XBADJ STCK1  0.00  0.00  0.00  0.00  0.00  0.00  0.00
YBADJ STCK1  0.00  0.00  0.00  0.00  0.00  0.00  0.00
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YBADJ STCK1  0.00  0.00  0.00  0.00  0.00  0.00  0.00

URBANSRC ALL
SRCGROUP ALL
SO FINISHED
**
******************************************************************************
** AERMOD Receptor Pathway
******************************************************************************
**
**
RE STARTING
  INCLUDED 25330.rou
RE FINISHED
**
******************************************************************************
** AERMOD Meteorology Pathway
******************************************************************************
**
**
ME STARTING
**
Surface File Path: L:\SSD FOLDERS\Modeling\25000-25499\25330\..\..\..\Permitting\4 - Modeling and HRA\Dispersion Modeling\Met Data\AermodMet 14134\Not 1 Minute Met Data\International\10-14\ SURFFILE "..\..\..\Permitting\4 - Modeling and HRA\Dispersion Modeling\Met Data\AermodMet 14134\Not 1 Minute Met Data\International\10-14\Int 10-14 N1MD.SFC"
** Profile File Path: L:\SSD FOLDERS\Modeling\25000-25499\25330\..\..\..\Permitting\4 - Modeling and HRA\Dispersion Modeling\Met Data\AermodMet 14134\Not 1 Minute Met Data\International\10-14\ PROFFILE "..\..\..\Permitting\4 - Modeling and HRA\Dispersion Modeling\Met Data\AermodMet 14134\Not 1 Minute Met Data\International\10-14\Int 10-14 N1MD.PFL"
SURFDATA 93225 2010
UAIRDATA 23230 2010 OAKLAND/WSO_AP
PROFBASE 8.0 METERS
ME FINISHED
**
******************************************************************************
** AERMOD Output Pathway
******************************************************************************
**
**
OU STARTING
  RECTABLE ALLAVE 1ST
  RECTABLE 1 1ST
** Auto-Generated Plotfiles
  PLOTFILE 1 ALL 1ST "L:\SSD FOLDERS\Modeling\25000-25499\25330\25330.AD\G1H1GAL.PLT" 31
PLOTFILE PERIOD ALL "L:\SSD FOLDERS\Modeling\2500-25499\25330\AD\PE00GALL.PLT" 32
SUMMFILE "L:\SSD FOLDERS\Modeling\2500-25499\25330\25330.sum"
OU FINISHED
**
******************************************************************************
** Project Parameters
******************************************************************************
** PROJCTN CoordinateSystemUTM
** DESCPTN UTM: Universal Transverse Mercator
** DATUM World Geodetic System 1984
** DTMRGN Global Definition
** UNITS m
** ZONE 10
** ZONEINX 0
**
GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: RMP

**Worker Adjustment Factors**
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.
Worker adjustments factors enabled: YES
GLC adjustment factor: 4.2
Exposure frequency: 245

**Fraction at time at home**
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

*******************************
TIER 2 SETTINGS
Tier2 not used.
*******************************

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330res\hra\25330resCancerRisk.csv
Cancer risk total by receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330res\hra\25330resCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330res\hra\25330resNCChronicRisk.csv
Chronic risk total by receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330res\hra\25330resNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330res\hra\25330resNCAcuteRisk.csv
Acute risk total by receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330res\hra\25330resNCAcuteRiskSumByRec.csv
HRA ran successfully
HARP Project Summary Report 10/3/2017 8:54:46 AM

***PROJECT INFORMATION***
HARP Version: 17023
Project Name: 25330res
Project Output Directory: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330res
HARP Database: NA

***FACILITY INFORMATION***
Origin
X (m):0
Y (m):0
Zone:1
No. of Sources:0
No. of Buildings:0

***EMISSION INVENTORY***
No. of Pollutants:1
No. of Background Pollutants:0

<table>
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<tr>
<th>Emissions</th>
<th>ScrID</th>
<th>StkID</th>
<th>ProID</th>
<th>PolID</th>
<th>PolAbbrev</th>
<th>Multi (lbs/yr)</th>
<th>Annual Ems (lbs/hr)</th>
<th>MaxHr Ems</th>
<th>MWAF</th>
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</thead>
<tbody>
<tr>
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Background
PolID | PolAbbrev | Conc (ug/m³) | MWAF

Ground level concentration files (.glic)

9901MAXHR.txt
9901PER.txt

***POLLUTANT HEALTH INFORMATION***
Health Database: C:\Harp2\Tables\HEALTH1.mdb
Health Table Version: HEALTH16088
Official: True

<table>
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<tr>
<th>PolID</th>
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<th>InhCancer</th>
<th>OralCancer</th>
<th>AcuteREL</th>
<th>InhChronicREL</th>
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<td>5</td>
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</table>

***AIR DISPERSION MODELING INFORMATION***
All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 15181
AERMAP: 11103
BRIPPRM: 04274
AERPLS: 13329

***METEOROLOGICAL INFORMATION***
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:
GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: All
Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 25

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 25

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: RMP

**Worker Adjustment Factors**
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments. Worker adjustments factors enabled: YES
GLC adjustment factor: 4.2
Exposure frequency: 245

**Fraction at time at home**
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

******************************
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

******************************
TIER 2 SETTINGS
Tier2 not used.

******************************
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330nonres\hra\25330nonresCancerRisk.csv
Cancer risk total by receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330nonres\hra\25330nonresCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330nonres\hra\25330nonresNCChronicRisk.csv
Chronic risk total by receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330nonres\hra\25330nonresNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330nonres\hra\25330nonresNCAcuteRisk.csv
Acute risk total by receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330nonres\hra\25330nonresNCAcuteRiskSumByRec.csv
HRA ran successfully
HARP Project Summary Report 10/3/2017 8:54:15 AM

***PROJECT INFORMATION***
HARP Version: 17023
Project Name: 25330nonres
Project Output Directory: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330nonres
HARP Database: NA

***FACILITY INFORMATION***
Origin
X (m): 0
Y (m): 0
Zone: 1
No. of Sources: 0
No. of Buildings: 0

***EMISSION INVENTORY***
No. of Pollutants: 1
No. of Background Pollutants: 0

Emissions
SrID StkID Prod PolID PolAbbrev Multi Annual Ems MaxHR Ems MWAF

STCK1 0 0 9901 DieselExhPM 1 1.422 0.028 1

Background
PolID PolAbbrev Conc (ug/m^3) MWAF

Ground level concentration files (glcf)
9901MAXHR.txt
9901PER.txt

***POLUTANT HEALTH INFORMATION***
Health Database: C:\Harp2\Tables\HEALTH1.mdb
Health Table Version: HEALTH16098
Official: True

PolID PolAbbrev InhCancer OralCancer AcuteREL InhChronicREL OralChronicREL InhChronic8HRREL

9901 DieselExhPM 1.1 5

***AIR DISPERSION MODELING INFORMATION***
All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/scram001/)
AERMOD: 116181
AERMAP: 11103
BPIPPRM: 04274
AERPLOT: 13329

***METEOROLOGICAL INFORMATION***
Version:
Surface File:
Profile File:
Surface Station:
Upper Station:
On-Site Station:
***LIST OF AIR DISPERSION FILES***
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list

***LIST OF RISK ASSESSMENT FILES***
Health risk analysis files (hrat)

25330nonresCancerRisk.csv
25330nonresCancerRiskSumByRec.csv
25330nonresGLCList.csv
25330nonresHRAInput.hra
25330nonresNCAcuteRisk.csv
25330nonresNCAcuteRiskSumByRec.csv
25330nonresNCChronicRisk.csv
25330nonresNCChronicRiskSumByRec.csv
25330nonresOutput.txt
25330nonresPathwayRec.csv
25330nonresPolDB.csv

Spatial averaging files (sai)
GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: All
Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 25

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 25

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: RMP

**Worker Adjustment Factors**
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.
Worker adjustments factors enabled: YES
GLC adjustment factor: 4.2
Exposure frequency: 245

**Fraction at time at home**
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

*****************************
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

*****************************
TIER 2 SETTINGS
Tier2 not used.

*****************************
Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: L:\SSD\FOLDERS\Modeling\25000-25499\25330\25330school\hra\25330schoolCancerRisk.csv
Cancer risk total by receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330school\hra\25330schoolCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: L:\SSD\FOLDERS\Modeling\25000-25499\25330\25330school\hra\25330schoolNCChronicRisk.csv
Chronic risk total by receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330school\hra\25330schoolNCChronicRiskSumByRec.csv
Calculating acute risk
Acute risk breakdown by pollutant and receptor saved to: L:\SSD\FOLDERS\Modeling\25000-25499\25330\25330school\hra\25330schoolNCAcuteRisk.csv
Acute risk total by receptor saved to: L:\SSD FOLDERS\Modeling\25000-25499\25330\25330school\hra\25330schoolNCAcuteRiskSumByRec.csv
HRA ran successfully
### PROJECT INFORMATION

**HARP Version:** 17023  
**Project Name:** 25330school  
**Project Output Directory:** L:\SSD FOLDERS\Modeling\25000-25499\25330\25330school  
**HARP Database:** NA

### FACILITY INFORMATION

**Origin**  
**X (m):** 0  
**Y (m):** 0  
**Zone:** 1  
**No. of Sources:** 0  
**No. of Buildings:** 0

### EMISSION INVENTORY

**No. of Pollutants:** 1  
**No. of Background Pollutants:** 0

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<th>ProID</th>
<th>PolID</th>
<th>PolAbbrev</th>
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<th>Max Hr Ems (lbe/hr)</th>
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Background  
**PolID**  
**PolAbbrev**  
**Conc (ug/m³)**  
**MWAF**

**Ground level concentration files (glct)**

9901MAXHR.txt  
9901PER.txt

### POLLUTANT HEALTH INFORMATION

**Health Database:** C:\Harp2\Tables\HEALTH1.mdb  
**Health Table Version:** HEALTH16088  
**Official:** True

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<th>AcuteREL</th>
<th>InhChronicREL</th>
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### AIR DISPERSION MODELING INFORMATION

All executables were obtained from USEPA's Support Center for Regulatory Atmospheric Modeling website (http://www.epa.gov/escm001/)

**AERMOD:** 15181  
**AERMAP:** 11103  
**BIPPRM:** 94274  
**AERPLOT:** 13329

### METEOROLOGICAL INFORMATION

**Version:**  
**Surface File:**  
**Profile File:**  
**Surface Station:**  
**Upper Station:**  
**On-Site Station:**
***LIST OF AIR DISPERSION FILES***
AERMOD Input File:
AERMOD Output File:
AERMOD Error File:
Plotfile list

***LIST OF RISK ASSESSMENT FILES***
Health risk analysis files (hral)

25330schoolCancerRisk.csv
25330schoolCancerRiskSumByRec.csv
25330schoolGLCList.csv
25330schoolHRAInput.hra
25330schoolNCAcuteRisk.csv
25330schoolNCAcuteRiskSumByRec.csv
25330schoolNCChronicRisk.csv
25330schoolNCChronicRiskSumByRec.csv
25330schoolOutput.txt
25330schoolPathwayRec.csv
25330schoolPsdDB.csv
-5330schoolOutput.txt

Spatial averaging files (tsal)
Appendix C
BACT Determination No. 116
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</table>

**Comments:** For emergency engines 50 ≤ bhp < 75, Tier 4 Interim certification is the requirement; for emergency engines 75 ≤ bhp < 750, Tier 3 certification is the requirement; for emergency engines ≥ 750 bhp, Tier 2 certification is the requirement.

**District Contact:** Isam Bouiad Phone No.: (916) 874 - 4859 email: ibouiad@airquality.org

**Printed:** 9/8/2017
Appendix D
Public Notice
October 9, 2017

Parents or guardians of children attending Natomas Christian School, 1921 Arena Blvd., Sacramento, CA 95834.

Addresses within a 1,000 foot radius of the proposed internal combustion (IC) engine located at 1931 Arena Blvd., Sacramento, CA 95834.

Regarding the permit application from AT&T Mobility, to install a new IC engine driving an emergency use electrical generator that would emit diesel particulate matter, which is designated as a toxic air contaminant by the California Air Resources Board (CARB).

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the local government agency that regulates stationary sources of air pollution such as manufacturing facilities, industrial sites, coating operations, gasoline stations and many others. The SMAQMD evaluates the air emissions from each project prior to approving a permit. SMAQMD's purpose is to ensure that the air emissions associated with a project meet all local, state and federal requirements in order to protect public health.

State law (1) requires that prior to approving an Authority to Construct permit for a facility that 1) emits toxic air contaminants and 2) is located within 1,000 feet of a K-12 school site, the SMAQMD must notify the parents or guardians of children attending all schools within a quarter-mile radius and all addresses within a 1,000-feet radius of the facility. SMAQMD must allow for a 30-day public review and comment period before taking final action on the permit application.

SMAQMD has received an application from AT&T Mobility for an Authority to Construct permit for a diesel-fired emergency use electrical generator.

The location has been determined to be within 1,000 feet from the outer boundary of Natomas Christian School. CARB has identified the diesel particulates from diesel-fired engine exhaust as a toxic air contaminant.

AT&T Mobility proposes to install an emergency use electrical generator at 1931 Arena Blvd., Sacramento, CA 95834. The electrical generator will operate 1) for maintenance & testing and 2) when utility electricity fails and can no longer support the equipment electrical load. The proposed electrical generator will be limited to operate 50 hours/year for maintenance and testing purposes and 200 hours/year combined for maintenance, testing and emergency use purposes. The electrical generator will not run for maintenance during school hours.

The SMAQMD analyzed the project for compliance with applicable air quality regulations. The analysis identified the amount and types of air emissions that are expected to be emitted from the proposed project and the effect of those air emissions on public health. The SMAQMD has determined that the health risk resulting from the toxic air contaminant emissions from the proposed project are within acceptable levels and that the project is expected to comply with all other local, state and federal air quality requirements.

(1) California Health and Safety Code section 42301.6

...continued on reverse
Written public comments will be accepted by SMAQMD for a 30-day period ending November 8, 2017 at the following address:

Sacramento Metropolitan Air Quality Management District
Attn: A/C 25330 – Michelle Joe
777 12th Street 3rd Floor
Sacramento, CA 95814-1908

The SMAQMD’s engineering evaluation and proposed permit can be reviewed at [http://www.airquality.org/About-Us/News-Notices](http://www.airquality.org/About-Us/News-Notices). All comments received during this 30-day period that pertain to areas for which the SMAQMD has jurisdiction will be reviewed and considered by SMAQMD before a final decision is made on this application for an Authority to Construct permit. As required, SMAQMD will include written responses to the comments in the permit application file.
Attachment NOE
CEQA Notice of Exemption
Notice of Exemption

To: Office of Planning and Research
   P.O. Box 3044, Room 113
   Sacramento, CA 95812-3044
   County Clerk
   County of: Sacramento
   600 8th Street
   Sacramento, CA 95814

From: (Public Agency): Sacramento Metropolitan AQMD
   777 12th Street, Suite 300
   Sacramento, CA 95814

Project Title: IC Engine Compression- Standby (A/C 25330)

Project Applicant: AT&T Mobility, PO Box 5095, Room 4W200M, San Ramon, CA, 94583

Project Location - Specific:
1931 Arena Boulevard, Sacramento, CA, 95834

Project Location - City: Sacramento

Description of Nature, Purpose and Beneficiaries of Project:
The project beneficiary, AT&T Mobility, is seeking an Authority to Construct and a Permit to Operate a diesel
fired emergency standby generator. AT&T Mobility is a wholly owned subsidiary of AT&T that provides wireless
services.

Name of Public Agency Approving Project: Sacramento Air Quality Management District

Name of Person or Agency Carrying Out Project: AT&T Mobility

Exempt Status: (check one):
- Ministerial (Sec. 21080(b)(1); 15268);
- Declared Emergency (Sec. 21080(b)(3); 15269(a));
- Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- Categorical Exemption. State type and section number:
- Statutory Exemptions. State code number: Sec. 1506(b)(3)

Reasons why project is exempt:
SMAQMD determined there is no possibility that the project will have a significant adverse impact on the
environment because its air pollutant emissions are within the Districts’ acceptable limits and no other
environmental medium is expected to be adversely affected. Also, this permitting action is covered under an
existing BACT, therefore it is considered ministerial.

Lead Agency Contact Person: Jorge DeGuzman
Area Code/Telephone/Extension: 916-874-4860

If filed by applicant:
1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? □ Yes □ No

Signature: ___________________________ Date: ___________________________ Title: Program Manager

Signed by Lead Agency □ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: ___________________________