INFORMATION REDACTED PURSUANT TO THE FREEDOM OF INFORMATION ACT (FOIA), 5 U.S.C. 552(B)(6)

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Waymo LLC
1600 Amphitheatre Pkwy
Mountain View, CA

October 30, 2024

Scott Simmons, Chief
Advanced and Emerging Technology Division
Office of Defects Investigation
1200 New Jersey Avenue SE.
Washington, DC 20590

Re: Waymo LLC – Fourth Response to Information Request ID PE24016-2

Dear Mr. Simmons,

This letter serves as Waymo's fourth response to the Office of Defects Investigation's Preliminary Evaluation Information Request PE24016-2 dated June 11, 2024. Our responses are based on the clarifications discussed with NHTSA ODI and captured in the letter "Waymo LLC – Clarification to Information Request ID PE24016-2" dated August 27, 2024 and are based on information available to Waymo on the date of the Information Request.

Responses

Request 1

List all states and cities, counties, or other local jurisdictions in the United States in which Waymo operates or has operated the subject vehicles on public roadways and provide the total number of subject vehicles that are or have been operated within each jurisdiction on public roadways. Additionally, for each subject vehicle operated on public roadways in the United States to date by Waymo, state the following:

a. Vehicle identification number (17-character VIN);
b. ADS version equipped on the subject vehicle when first operated on public roadways;
c. Date of initial operation on public roadways (MM/DD/YYYY);
d. The state(s) and jurisdiction(s) in the United States where the vehicle and system have been operated (postal abbreviation);
e. By each discrete geographical area in which the vehicle has operated, the number of miles driven on public roadways with the ADS engaged from July 1, 2021, through June 30, 2024, by month and year:
    i) in total;
    ii) with onboard human supervision (regardless of whether or not passengers were present);
    iii) without onboard human supervision (regardless of whether or not passengers were present);
    iv) with passengers and with onboard human supervision; and
    v) with passengers and without onboard human supervision.

f. By each discrete geographical area in which the vehicle has operated, the number of subject incidents from July 1, 2021, through June 30, 2024, by month and year:
    i) in total;
    ii) with onboard human supervision (regardless of whether or not passengers were present);
    iii) without onboard human supervision (regardless of whether or not passengers were present);
    iv) with passengers and with onboard human supervision; and
    v) with passengers and without onboard human supervision.

Response 1

[redacted]

Request 2

State the number of each of the following, received by Waymo, or of which Waymo is otherwise aware, which relate to, or may relate to, the subject incidents or subject behaviors involving the subject vehicles from July 1, 2021, through June 30, 2024:

a. Consumer complaints;
b. Fleet operator complaints or reports;
c. Field reports;
d. Reports involving a crash, injury or fatality;
e. Property damage claims;
f. Third-party arbitration proceedings, both pending and closed, where Waymo is or was a party to the arbitration;
g. Lawsuits, both pending and closed, in which Waymo is or was a defendant or codefendant; and
h. Legal claims asserted against Waymo before formal proceedings began.

For subparts “a” through “h” state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

For items “f” through “h,” identify the parties to the action, and where applicable, identify the caption, court or arbitral forum, docket number, and date on which the complaint or other document initiating the action was filed.

Response 2

[redacted]

Request 3

Separately, for each subject incident from July 1, 2021, through June 30, 2024, and for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:

a. Waymo's file number or other identifier used;
b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
c. The identification number for any related incident report submitted in response to Standing General Order 2021-01;
d. The subject vehicle's 17-character VIN;
e. The subject vehicle's ADS version at the time of the incident reported at a level of specificity to capture software and hardware updates;
f. Incident date (MM/DD/YYYY) and local time;
g. Report or claim date (MM/DD/YYYY);
h. Incident location (GPS coordinates);
i. Whether the subject vehicle was operating with or without onboard human supervision;
j. The number of passengers in the subject vehicle;
k. Whether a potential or actual collision was detected by the subject vehicle or subject system;
l. Whether a collision was verified;
m. Whether property damage is alleged;
n. Number of alleged injuries, if any;
o. Number of alleged fatalities, if any; and
p. Whether property damage is alleged.

Response 3

[redacted]

Request 4

For each incident within the scope of your response to Request No. 3, provide a summary description of the incident and identify causal and contributing factors, material underlying facts, as well as Waymo's assessment of the incident, with a summary of the significant underlying facts and evidence. This summary shall include but not be limited to:

a. Waymo's file number(s) or other identifier(s) used for any item(s) within the scope of your responses above related to this action;
b. How Waymo initially learned of the incident. For complaints, identify the reporting mechanism through which Waymo received the report. For internally identified incidents, identify the internal process or mechanism through which Waymo learned of the incident;
c. Relative position and description of traffic control devices relevant to any unexpected or inappropriate behavior;
d. Whether the subject vehicle and subject systems were operating within the specified ODD and within any other expected operational limits;
e. Whether the subject vehicle or any subject system was operating in a degraded state;
f. Cause(s) of any subject system disengagement, exit of the specified ODD or any other expected operational limits, inappropriate behavior, or degraded state(s);
g. Whether the subject system was returned to operation immediately;

h. If applicable, how the subject vehicle was removed from the scene of the incident;
i. Whether, following the incident, the subject vehicle or any subject vehicle was grounded from operation on public roadways or if public roadway operations were otherwise altered or restricted;
j. Reason(s) for any grounding or public roadway operation restrictions;
k. Any action(s) taken to return the subject vehicle or subject system to operation on public roadways; and
l. Any resulting actions taken that affected other subject vehicles or subject systems.

Response 4

[redacted]

Request 5

Produce copies of all documents related to each item within the scope of Request No. 3. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the

method Waymo used for organizing the documents.

Response 5

[redacted]

[redacted]

Request 6

Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, “actions”) that relate to, or may relate to, the subject incidents and subject behaviors that have been conducted, are being conducted, are planned, or are being planned by, or for, Waymo. For each such action, provide the following information:

a. Action title or identifier;
b. The actual or planned start date;
c. The actual or expected end date;
d. Waymo’s file number(s) or other identifier(s) used for any item(s) within the scope of your responses above related to this action;
e. Summary of the subject and objective of the action;
f. Engineering group(s)/supplier(s) responsible for designing and for conducting the action;
g. A description and values of all measures, metrics and criteria used to assess the safety, reliability, and prediction performance of the subject vehicles and subject systems, individually and in aggregate, operating with and without onboard human supervision; and
h. A summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

Response 6

[redacted]

Request 7

Describe all modifications or changes made by, or on behalf of, Waymo in the design of the subject system since March 4, 2020, which relate to, or may relate to, the subject incidents and subject behaviors. For each such modification or change, provide the following information:

a. The date or approximate date on which the modification or change was incorporated into the subject system;
b. A detailed description of the modification or change;

c. Which sets of subject vehicles the change was deployed on (e.g., supervised, unsupervised, etc.);
d. The reason(s) for the modification or change;
e. The version of the subject system prior to modification;
f. The version of the modified subject system;
g. Whether the original unmodified subject system was withdrawn from operation, and if so, when; and
h. Whether the modified component can be interchanged with earlier versions.

Also, provide the above information for any modification or change that Waymo is aware of which may be incorporated into the subject vehicles within the next 120 days which relate to, or may relate to, the subject incidents and subject behaviors.

Response 7

[redacted]

Request 8

Describe each discrete geographical ODD(s) of the subject systems and all modifications or changes to each ODD and geographic area of the subject vehicles' operation since March 4, 2020. Provide ODD boundaries in a format compatible with Google Earth (e.g., kml). Provide this information separately for vehicles operating with and without onboard human supervision. For each such modification or change, provide the following information:

a. The date or approximate date on which the modification or change was incorporated into vehicles in operation;
b. A detailed description of the modification or change; and
c. The reason(s) for the modification or change.

Also, provide the above information for any ODD changes that Waymo is aware of which may be incorporated into vehicles in operation within the 120 days of any response to this request.

Response 8

[redacted]

Request 9

Describe and produce documents related to any policies, practices, processes, procedures, or safeguards (collectively, "actions") which Waymo employs that are intended to identify, characterize, reduce, or mitigate the safety risks to passengers and other road users associated with risks arising from the subject incidents and behaviors. This request includes any actions pertaining to the conditions under which subject vehicles are operated with and without onboard human supervision. At minimum, include documents pertaining to:

a. Incident response processes that can lead to fleet grounding, implementing operational restrictions, and changes to ODD or other operational specifications.
b. How Waymo designs and initiates changes to the remote assistance interface.
c. How Waymo chooses specific roadways, publicly accessible areas, and private properties within a given geographical area for mapping.

d. Waymo's approach for detecting, classifying, and ensuring authorized ADS operation near or within gated properties and private properties.
e. Waymo's approach for minimizing the impact to ADS operations of traffic control devices that are repositioned after initial mapping of an ODD.
f. Waymo's methodology for documenting and evaluating changes to its ODD specification(s).
g. How Waymo defines and designs for conditions under which vehicle can operate in opposing lanes or other lanes of travel (e.g., bike lanes) where the vehicle should not travel when a normal travel lane is unobstructed.
h. How the subject system accounts for objects that are normally stationary, but are detected as moving (e.g., objects being towed in a trailer).
i. How Waymo monitors and assesses ADS competency in obeying traffic control devices and traffic safety laws.

Response 9

[redacted]

[redacted]

Request 10

Furnish Waymo's assessment of each subject behavior in the subject vehicles, including:

a. The causal or contributory factor(s);
b. The failure mechanism(s);
c. The failure mode(s);
d. The risk to motor vehicle safety that it poses;
e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the subject behavior was occurring, or subject system was malfunctioning; and
f. The reports included with this inquiry.

Response 10

[redacted]

[redacted]

[redacted]

[redacted]

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Request 11

Describe in detail the search methods and search criteria used by Waymo to identify the information responsive to each Request above. Include a list and description of the record systems and data types searched.

Response 11

Waymo has detailed the search methods and search criteria used by Waymo to identify the information response to each Request above in the Search Methods and Search Criteria section of each response above.

Conclusion

Please call me if you have any questions about this topic and would like to discuss further.

Sincerely,

[redacted]

Matthew Schwall
Director, Safety & Incident Management