JUN 25 2003

U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

Mr. Steven P. Reynolds
Senior Council, Sensors & Controls
Texas Instruments Incorporated
34 Forest Street, MS 20-21
Attleboro, MA 02703

NVS-213bby
EA02-025

Dear Mr. Reynolds:

The Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) is investigating allegations that failures of Speed Control Deactivation Switches manufactured by Texas Instruments have caused engine compartment fires in model year (MY) 1992 through 1997 Ford Crown Victoria, Lincoln Town Car, and Mercury Grand Marquis vehicles. Ford determined that some speed control deactivation switches on the affected vehicles could develop a resistive short in the electrical circuit that could potentially result in an engine compartment fire. By its letter dated May 13, 1999, Ford limited the scope of the recall (99V-124) to Lincoln Town Car vehicles built at the Wixom Assembly Plant from November 4, 1991 through November 30, 1992 and Crown Victoria and Mercury Grand Marquis vehicles built at the St. Thomas Assembly Plant from February 5, 1992 through November 30, 1992.

ODI has received 26 complaints reporting engine compartment fires in certain (MY) 1992-1997 Lincoln Town Car, Ford Crown Victoria and Mercury Grand Marquis vehicles. All of the 26 complaints identified above have been confirmed as having build dates outside the scope of Ford's original recall. The purpose of the investigation is to determine the adequacy of the scope of Ford's recall.

To assist us with our investigation, ODI is requesting certain information from Texas Instruments.

Unless otherwise stated in the text, the following definitions apply to these information requests:

- **Subject vehicles:** All MY 1992 through 1997 Ford Crown Victoria, Lincoln Town Car, Mercury Grand Marquis vehicles.

- **Subject recall:** NHTSA Recall No. 99V-124 (Ford Recall No. 99S15).

- **Subject switches:** All Speed Control Deactivation Switches manufactured by Texas Instruments for use in the subject vehicles or vehicles included in the subject recall.

- **Texas Instruments:** Texas Instruments Incorporated, all of its past and present officers and employees, whether assigned to its principal offices or any of its field or other locations, including all of its divisions, subsidiaries (whether or not incorporated) and affiliated enterprises and all of their headquarters, regional, zone and other offices and their employees, and all agents, contractors, consultants, attorneys and law firms and other persons engaged directly or indirectly (e.g., employee of a consultant) by or under the control of Texas Instruments (including all business units and persons previously referred to), who are or, in or after 1991, were involved in any way with any of the following related to the alleged defect in the subject vehicles:
  a. Design, engineering, analysis, modification or production (e.g. quality control) of speed control deactivation switches;
  b. Testing, assessment or evaluation of such switches;
  c. Consideration, or recognition of potential or actual defects, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits.

- **Alleged defect:** Any malfunction of the subject switches resulting in loss of the speed control function, melting of switch materials, smoke, fire, or ignition of engine compartment materials or components.

- **Document:** "Document(s)" is used in the broadest sense of the word and shall mean all original written, printed, typed, recorded, or graphic matter whatsoever, however produced or reproduced, of every kind, nature, and description, and all non-identical copies of both sides thereof, including, but not limited to, papers, letters, memoranda, correspondence, communications, electronic mail (e-mail) messages (existing in hard copy and/or in electronic storage), faxes, mailgrams, telegrams, cables, telex messages, notes, annotations, working papers, drafts, minutes, records, audio and video recordings, data, databases, other information bases, summaries, charts, tables, graphics, other visual displays, photographs, statements, interviews, opinions, reports, newspaper articles, studies, analyses, evaluations, interpretations, contracts, agreements, jottings, agendas, bulletins, notices, announcements, instructions, blueprints, drawings, as-builts, changes, manuals, publications, work schedules, journals, statistical data, desk, portable and computer calendars, appointment books, diaries, travel reports, lists, tabulations, computer printouts, data processing program libraries, data processing inputs and outputs, microfilms, microfiches, statements for services, resolutions, financial statements, governmental records, business records, personnel records, work orders, pleadings, discovery in any form, affidavits, motions, responses to discovery, all transcripts, administrative filings and all mechanical, magnetic, photographic and electronic records or recordings of any kind, including any storage media associated with computers, including, but not limited to, information on hard drives, floppy disks, backup tapes, and zip drives, electronic communications, including but not limited to, the Internet and shall include any drafts or revisions pertaining to any of the foregoing, all other things similar to any of the foregoing, however denominated by Texas Instruments, any other data

compilations from which information can be obtained, translated if necessary, into a usable form and any other documents. For purposes of this request, any document, which contains any note, comment, addition, deletion, insertion, annotation, or otherwise comprises a non-identical copy of another document shall be treated as a separate document subject to production. In all cases where original and any non-identical copies are not available, "document(s)"also means any identical copies of the original and all non-identical copies thereof. Any document, record, graph, chart, film or photograph originally produced in color must be provided in color. Furnish all documents whether verified by the manufacturer or not. If a document is not in the English language, provide both the original document and an English translation of the document.

- Other terms: To the extent that they are used in these information requests, the terms "claim," "consumer complaint," "dealer field report," "field report," "fire," "fleet," "good will," "make," "model," "model year," "notice," "property damage," "property damage claim," "rollover," "type," "warranty," "warranty adjustment," and "warranty claim," whether used in singular or in plural form, have the same meaning as found in 49 CFR 579.4.

In order for my staff to evaluate the alleged defect, certain information is required. Please provide numbered responses to the following information requests. When documents are produced, the documents shall be produced in an identified, organized manner that corresponds with the organization of this information request letter (including all individual requests and subparts). When documents are produced and the documents would not, standing alone, be self-explanatory, the production of documents shall be supplemented and accompanied by explanation.

Please repeat the applicable request verbatim above each response. After Texas Instrument's response to each request, identify the source of the information and indicate the last date the information was gathered. If requested information is unavailable, so state and provide a brief explanation. Along with your written response, please provide this information in Microsoft Word 2000, or a compatible format, entitled "IR Response."

1. Provide an electronic listing, in Microsoft Excel 2000, of all speed control deactivation and other brake pressure switches of similar construction manufactured by Texas Instruments for use in motor vehicles. Provide this listing by switch type, switch part number, switch cycling pressures, years of production, vehicle applications (by make, model, and model years), number produced for original equipment installation (by calendar year), and number produced for sale as service replacement parts (by calendar year). Show switches produced for use in the subject recall as a separate entry.

2. Provide copies of all engineering standards and specifications relating to the subject switches.

3. Describe, and provide copies of all documents relating to, all design verification and validation tests that relate in any way to the durability of the subject switches.

4. Provide a chronology of all events relating to the initial testing and supply of the subject switches for MY 1992 through 1997 Ford Crown Victoria, Lincoln Town Car, and Mercury Grand Marquis vehicles and of the subsequent investigation that led to the subject recall.

5. Describe, and provide copies of all documents relating to, all inspections, tests, and other analyses of subject switches returned from vehicles serviced under the subject recall. Provide a listing of all such switches that were inspected, tested, evaluated, or assessed by stating the vehicle's VIN, recall repair date, mileage at the recall repair date, switch part number, part serial number (identifying marking), part date of build, and anomalies detected.

6. Describe, and provide copies of all documents relating to, all inspections, tests, and other analyses of subject switches returned from subject vehicles that were not included in the subject recall. Provide a listing of all such switches that were inspected, tested, evaluated, or assessed by stating the vehicle's VIN, recall repair date, mileage at the recall repair date, switch part number, part serial number (identifying marking), part date of build, and anomalies detected.

7. Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries, assessments and/or evaluations (collectively, "actions"), that relate to, or may relate to, the alleged defect in any of the subject switches, that have been conducted, are being conducted, are planned, or are being planned by, or for, Texas Instruments. For each such action, provide the following information:

   a. Vehicle make, model, and model year for which the subject switch was or may be used;
   b. Action title or identifier;
   c. The actual or planned start date;
   d. The actual or expected end date;
   e. Brief summary of the subject and objective of the action;
   f. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and,
   g. A brief summary of the findings and/or conclusions resulting from the action.
   h. 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.

8. Describe all modifications or changes made by, or on behalf of, Texas Instruments in the design, material composition, manufacture, quality control, supply, or installation of the subject switches, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. 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 production;
   b. A detailed description of the modification or change;
   c. The reason(s) for the modification or change;
   d. The part numbers (service and engineering) of the original component;

e. The part number (service and engineering) of the modified component;
f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
g. When the modified component was made available as a service component; and
h. Whether the modified component can be interchanged with earlier production components.

9. Provide copies of all documents relating to all communications between Texas Instruments and Ford regarding the alleged defect in the subject switches. Organize the document copies in chronological order.

10. Provide copies of all documents relating to all communications between Texas Instruments and DuPont regarding the alleged defect in the subject switches. Organize the document copies in chronological order.

11. Provide copies of all documents transmitted internally within Texas Instruments that relate to the durability of the subject switches.

12. Describe all identifying markings used by Texas Instruments on the subject switches.

13. Provide copies of all failure mode and effects analyses related to the subject switches.

14. Provide an electronic summary, in a format compatible with Microsoft Excel 2000, of each fire claim of which Texas Instruments is aware of, regardless of whether the claim is against Texas Instruments, relative to the alleged defect in the subject switches that involve vehicles outside the scope of the subject recall. For each such claim, include the following information in the summary:

    a. Vehicle owner name, address, and telephone number;
    b. Vehicle model, model year, and identification number (VIN);
    c. Incident date and vehicle mileage;
    d. Summary of the claim and evidence provided to support the claim of switch failure; and
    e. Texas Instruments' assessment of the claim.

15. Furnish Texas Instruments' assessment of the alleged defect in the subject switches, including:

    a. An assessment of the failure mechanism;
    b. An assessment of the long term resistance of the subject switches to automotive brake fluid at 100°C, 120°C, and 150°C;
    c. An assessment of the estimated service life of the subject switches in hours and pressure cycles when subjected to the conditions described in 16.b;
    d. An assessment of the design factors of the subject switches that may influence the durability of the subject switches;
    e. An assessment of the manufacturing factors that may influence the durability of the subject switches;

f. An assessment of the vehicle assembly factors that may influence the durability of the subject switches; and
g. An assessment of the use factors of the subject switches that may influence the durability of the subject switches.

Please be as specific as possible in your answers and provide engineering explanations for how various factors affect the switch durability.

16. Provide the name and contact information of a Texas Instruments representative that can answer technical questions concerning the subject of this letter.

If Texas Instruments cannot respond to any specific request or subpart(s) thereof, please state the reason why it is unable to do so. If on the basis of attorney-client, attorney work product, or other privilege, Texas Instruments does not submit one or more requested documents or items of information in response to this information request, Texas Instruments must provide a privilege log identifying each document or item withheld, and stating the date, subject or title, the name and position of the person(s) from, and the person(s) to whom it was sent, and the name and position of any other recipient (to include all carbon copies or blind carbon copies), the nature of that information or material, and the basis for the claim of privilege and why that privilege applies.

Texas Instrument's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by August 20, 2003. Please refer to EA02-025 in Texas Instrument's response to this letter. If Texas Instruments finds that it is unable to provide all of the information requested within the time allotted, Texas Instruments must request an extension from Mr. Jeffrey L. Quandt at (202) 366-5207 no later than five business days before the response due date. If Texas Instruments is unable to provide all of the information requested by the original deadline, it must submit a partial response by the original deadline with whatever information Texas Instruments then has available, even if an extension has been granted.

If Texas Instruments claims that any of the information or documents provided in response to this information request constitute confidential commercial material within the meaning of 5 U.S.C. § 552(b)(4), or are protected from disclosure pursuant to 18 U.S.C. § 1905, Texas Instruments must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, to the Office of Chief Counsel (NCC-113), National Highway Traffic Safety Administration, Room 5219, 400 Seventh Street, S.W., Washington, D.C. 20590. Texas Instruments is required to submit two copies of the documents containing allegedly confidential information (except only one copy of blueprints) and one copy of the documents from which information claimed to be confidential has been deleted.

If you have any technical questions concerning this matter, please call Bruce York of my staff at (202) 366-6938.

Sincerely,

Kathleen C. DeMeter, Director
Office of Defects Investigation
Enforcement