



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

1200 New Jersey Avenue SE.
Washington, DC 20590

JUN 17 2010

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Ms. Brenda Rider
Indak Manufacturing Corp.
715 Happy Hallow Road
Dahlonega, GA 30533

NVS-214bby
EA10-003

Dear Ms. Rider:

The Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) is investigating allegations of failures of HVAC Blower Motor Control Switches that have caused fires in model year (MY) 1997 through 2008 Ford E-350 and E-450 vehicles. These switches were manufactured by Indak Manufacturing Corporation. To assist us with our investigation, ODI is requesting certain information from Indak.

To address this problem, ODI opened an investigation denominated PE 09-055. In response to ODI's Information Request letter dated December 14, 2009, in that investigation, Ford provided 28 reports alleging burning, melting or open flames on the blower motor control switches on subject vehicles. In addition to these complaints, ODI has also received 92 fleet reports alleging 182 blower motor switches burning or melting on subject vehicles. In addition, ODI has received 1 consumer complaint alleging that a fire occurred at the HVAC blower motor control switch in a model year (MY) 2004 Ford E-450 vehicle. The initial investigation has been upgraded to an Engineering Analysis, Number EA10-003. The purpose of this investigation is to determine if the burning and melting blower motor control switches can lead to passenger compartment fires.

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

- **Subject vehicles:** All MY 1997 through 2008 Ford E-350 and E-450 vehicles manufactured for sale in the United States.
- **Subject components:** All HVAC blower motor control switches produced by Indak for use in the subject vehicles as original equipment or as replacement parts.
- **Indak:** Indak Manufacturing Corporation, 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 Indak (including all business units and persons previously referred to), who are or, in or after 1994, were involved in any way with Indak's blower motor switches as it related to the alleged defect in the subject vehicles:

- a. Design, engineering, analysis, modification or production (e.g. quality control);
 - b. Testing, assessment or evaluation;
 - c. Consideration, or recognition of potential or actual defects or their safety-relatedness, reporting, record-keeping and information management, (e.g., complaints, field reports, warranty information, part sales), analysis, claims, or lawsuits, or
 - d. Communication to, from or intended for motor vehicle manufacturers, including Ford Motor Co., and their suppliers.
- **Alleged defect:** Any smoke, fire, melting, or ignition of the subject component, of dash compartment materials in the area around the subject component, or of wiring harnesses including connectors, that connect to the subject component.
 - **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 Indak, 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. "Person" includes natural persons and business entities.

In order for my staff to evaluate the alleged defect, certain information is required. Please provide numbered responses to the following information requests. Insofar as Indak has previously provided a document to ODI, Indak may produce it again or identify the document, the document submission to ODI in which it was included and the precise location in that submission where the document is located. 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 Indak'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 2003, or a compatible format, entitled "IR Response."

1. Provide, by motor vehicle manufacturer and by supplier, to which Indak supplied HVAC blower motor switches, a listing, in Microsoft Excel 2003, of all rotary HVAC blower motor control switches, rated at or above 25 amperes in any of the switch's positions, manufactured by Indak for use in motor vehicles since 1997. In your listing, for each switch, state the switch part number (if the part number is not Indak's part number, provide information on whose part number it is), current rating(s) (in amperes), years in which Indak produced it, 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).
2. Separately, for each blower motor switch listed in Indak's response to Request No. 1, state the number of each of the following, received by Indak or of which Indak is otherwise aware, where the Indak switch or the motor vehicle in which the switch was located was alleged to have manifested any smoke, fire, melting, or ignition of the switch, of dash compartment materials in the area around the switch, or of wiring harnesses including connectors, that connect to the switch:

- a. Consumer complaints, including those from fleet operators;
- b. Field reports;
- c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
- d. Other reports involving smoke, fire, melting or ignition of the switch;
- e. Third-party arbitration proceedings; and,
- f. Lawsuits, both pending and closed, in which Indak is or was a defendant or codefendant.

For subparts "a" through "d," state the total number of each item (e.g., consumer complaints, field reports, etc.) separately for each model and model year. 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).

In addition, for items "a" through "d," provide a summary description of the alleged problem and causal and contributing factors and Indak's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "e" and "f", identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

3. Separately for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:
 - a. Indak'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. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
 - d. Vehicle's VIN;
 - e. Vehicle's make, model and model year;
 - f. Vehicle's mileage at time of incident;
 - g. Incident date;
 - h. Incident state;
 - i. Report or claim date;
 - j. Whether a crash is alleged;
 - k. Whether a fire is alleged;
 - l. Whether property damage is alleged;
 - m. Number of alleged injuries, if any;
 - n. Number of alleged fatalities, if any;
 - o. Indak component and system codes;
 - p. Component that is alleged to have failed;
 - q. If a fire is alleged, indicate the alleged area of the dashboard where the fire started. (left, right, center, or unknown)
 - r. Whether the incident occurred with the engine "OFF" or the engine "ON;"
 - s. Whether or not Indak received a subrogation claim regarding the incident (Y/N);

- t. If a fire is alleged, whether a fire investigation was performed by any party, that Indak is aware of, to determine the origin and cause (if so, please provide a copy of the report);
- u. If a fire is alleged, the alleged cause of the fire;
- v. Complaint summary;
- w. Consumer comments; and,
- x. Indak's assessment of the allegation.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table designed for this submission.

- 4. Produce electronic copies of all documents related to each item within the scope of Request No. 2 and/or 3. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Indak used for organizing the documents.
- 5. Produce, by part number, copies of all engineering drawings, standards and specifications for subject components supplied by Indak for subject vehicles.
- 6. Describe in detail the design verification and validation tests undertaken for the subject components.
- 7. Produce all documents pertaining to the design verification and validation tests and test results undertaken for the subject components.
- 8. State the following regarding the original design of the subject component(s): when it was designed, the specifications that it was designed to, the date the design was approved or otherwise validated by Indak and by Ford, and the date or approximate date on which the design was incorporated into Indak's production.
- 9. For each subject component, describe in detail Indak's role or interaction in the design, material selection, specifications, and validation of subject component(s)
- 10. Identify the sub components and materials used to manufacture them for all versions of the subject components supplied to Ford. State the manufacturer name and contact information for any polymers used in these sub components.
- 11. Describe, and provide copies of all documents relating to, all inspections, tests, and other analyses of subject components returned from subject vehicles. Provide a listing of all such components that were inspected, tested, evaluated, or assessed by stating the vehicle's model, model year, VIN, mileage, switch part number, part serial number (identifying marking), part date of build, and problems and anomalies observed or detected.
- 12. 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 components, that have been

conducted, are being conducted, are planned, or are being planned by, or for, Indak. For each such action, provide the following information:

- a. Vehicle make, model, and model year for which the subject component 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.

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.

13. State whether Indak has ever conducted, or is aware of, any returned part analyses in subject vehicles related to the alleged defect or failure of the subject components. If so, describe, and provide electronic copies of all documents relating to any and all returned part analyses of subject components. Include in your description the total number of such parts returned, the number analyzed, a description of how they were analyzed, and the results of the analyses. Include any and all material showing the frequencies of failed components as a function of service life or mileage.
14. Describe all modifications or changes made by Indak in the design, material composition, manufacture, quality control, supply, or installation of the subject components, from the start of production to date. 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.
15. Describe all modifications or changes made by, or on behalf of, Ford in the design, material composition, manufacture, quality control, supply, or installation of the subject components, from the start of production to date. 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.
16. After having collected subject components from the field, ODI has identified four switches that appear to be made from different materials. These differences are indicated by the color of the materials that the switches are made of. Please identify in the previous two questions when and why these changes occurred.
17. For each subject component (including all modifications or changes thereto), provide the following:
- a. The current (in amps) rated;
 - b. Surges within the capacity of the switch (for example, in the startup or shut down of the blower motor);
 - c. Information on what the fuse (amps) should be;
 - d. The standard temperature in operation;
 - e. The highest operating temperature permitted;
 - f. The temperature at which component parts will begin to melt;
 - g. Information on the temperature of the subject component under various loads;
 - h. Information on the temperature of the subject component when it has a loose connector or pigtail;
 - i. Information on the temperature of the subject component after wear on the component;
 - j. Information on conditions under which a short of the subject component was observed;
 - k. Information on conditions under which arcing with the subject component was observed; and
 - l. Information on conditions under which overheating of the subject component was observed.
18. Describe in detail, including the date, identities, titles and organizational affiliations of all participants and substance of each meeting (including in-person meetings, video conferences and teleconferences) in which Indak participated or is aware of that the alleged defect was discussed. Produce copies of all documents relating to said meetings.
19. Produce all documents (including e-mails) (internal or external) sent to or from Indak, within Indak, or that Indak is aware of relating to the alleged defect. Organize the documents in chronological order.

20. Describe how Indak defines or would define a failure of the subject component and describe how Indak would make a failure determination. Provide copies of all failure mode and effects analyses related to the subject components.
21. Furnish Indak's assessment of the alleged defect in the subject components, including:
- An assessment of the failure mechanism;
 - An assessment of what electrical conditions can and/or likely did cause the switch to overheat, melt or burn;
 - An assessment of the estimated service life of the subject components in hours and cycles when subjected to currents of 27.3 amps and to 35 amps (excluding startup and turning off of the switch);
 - An assessment of the design factors of the subject components that may influence the durability of the subject components;
 - An assessment of the manufacturing factors that may influence the durability of the subject components;
 - An assessment of the vehicle assembly factors that may influence the durability of the subject components; and
 - An assessment of the use factors of the subject components that may influence the durability of the subject components.

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

22. Provide the name and contact information of an Indak representative that can answer technical questions concerning the subject of this information request.

If Indak 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, Indak does not submit one or more requested documents or items of information in response to this information request, Indak 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.

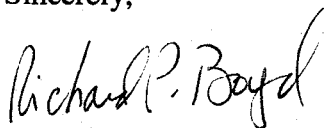
Indak's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by **August 2, 2010**. Please refer to EA10-003 in Indak's response to this letter. If Indak finds that it is unable to provide all of the information requested within the time allotted, Indak must request an extension from me at (202) 366-4933 no later than five business days before the response due date. If Indak 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 Indak then has available, even if an extension has been granted.

If Indak 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, Indak 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 W41-227, 1200 New Jersey Ave., S.E., Washington, D.C. 20590. Indak 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,



Richard P. Boyd, Acting Director
Office of Defects Investigation
Enforcement

Enclosure 1, one CD ROM titled Data Collection Disc containing three files