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

1200 New Jersey Avenue SE.
Washington, DC 20590

AUG 17 2011

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Chris Sandvig
Product Compliance Officer
Volkswagen of America, Inc.
3800 Hamlin Road
Auburn Hills, MI 48326

NVS-213hkb
PE11-023

Dear Mr. Sandvig:

This letter is to inform you that the Office of Defects Investigation (ODI) of the National Highway Traffic Safety Administration (NHTSA) has opened Preliminary Evaluation PE11-023 to investigate allegations of fuel leakage from fuel rail assemblies of model year (MY) 2011 Volkswagen Jetta TDI vehicles manufactured by Volkswagen of America, Inc., and to request certain information.

This office has received seven reports of fuel leakage from the fuel line to the #2 injector in the fuel rail assemblies of MY 2011 Volkswagen Jetta TDI vehicles. In addition, ODI has received a similar complaint involving a MY 2010 Volkswagen Golf TDI vehicle. One complaint estimated ⅓ to ½ cup of fuel leaking per minute. Another complaint had a leak verified by the dealer as a pinhole in the fuel line at the #2 injector. A third complaint acknowledges fuel sprayed throughout the engine compartment and subsequently on the roadway making this fuel leakage a hazard for other motorists. Copies of each of the reports are enclosed for your information.

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

- **Subject vehicles:** all MY 2011 VW Jetta TDI Clean Diesel vehicles manufactured for sale or lease in the United States.

- **Peer vehicles:** all MY 2009 through 2011 Volkswagen and Audi vehicles equipped with 2.0L TDI Clean Diesel engines (Volkswagen Jetta and Golf and Audi A3) and manufactured for sale or lease in the United States.

- **Subject components:** all fuel lines and injectors used in the common rail fuel rail assemblies of the subject vehicles.

- **VW:** Volkswagen of America, Inc., Volkswagen Worldwide, all of their past and present officers and employees, whether assigned to their principal offices or any of their field or other locations, including all of their 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 VW (including all business units and persons previously referred to), who are or, in or after January 1, 2000, 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);
  b. Testing, assessment or evaluation;
  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; or
  d. Communication to, from or intended for zone representatives, fleets, dealers, or other field locations, including but not limited to people who have the capacity to obtain information from dealers.

- **Alleged defect:** Fuel leakage from the common rail assembly, including all associated injector fuel lines, injectors and fittings.

- **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 VW, 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 VW 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. Pursuant to 49 U.S.C. § 30166, please provide numbered responses to the following information requests. Insofar as VW has previously provided a document to ODI, VW 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 VW's response to each request, identify the source of the information and indicate the last date the information was gathered.

1. State, by model and model year, the number of subject and peer vehicles VW has manufactured for sale or lease in the United States. Separately, for each subject and peer vehicle manufactured to date by VW, state the following:

   a. Vehicle identification number (VIN);
   b. Make;
   c. Model;
   d. Model Year;
   e. Date of manufacture;
   f. Date warranty coverage commenced; and
   g. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

   Provide the table in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

2. State the number of each of the following, received by VW, or of which VW is otherwise aware, which relate to, or may relate to, the alleged defect in the subject and peer vehicles:

   a. Consumer complaints, including those from fleet operators;
   b. Field reports, including dealer 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. Property damage claims;
   e. Third-party arbitration proceedings where VW is or was a party to the arbitration; and
   f. Lawsuits, both pending and closed, in which VW 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. 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 "c" through "f," provide a summary description of the alleged problem and causal and contributing factors and VW's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "f" and "g," 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. VW'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. Report or claim date;
   i. Whether a crash is alleged;
   j. Whether property damage is alleged;
   k. Number of alleged injuries, if any; and
   l. Number of alleged fatalities, if any.

   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 which provides further details regarding this submission.

4. Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method VW used for organizing the documents.

5. State, by model and model year, a total count for all of the following categories of claims, collectively, that have been paid by VW to date that relate to, or may relate to, the alleged defect in the subject and peer vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

   Separately, for each such claim, state the following information:

   a. VW's claim number;
   b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
   c. VIN;
   d. Repair date;
   e. Vehicle mileage at time of repair;
   f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
   g. Labor operation number;
   h. Problem code;
   i. Replacement part number(s) and description(s);
   j. Concern stated by customer; and
   k. Comment, if any, by dealer/technician relating to claim and/or repair.

   Provide this information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

6. Describe in detail the search criteria used by VW to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by VW on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that VW offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

7. Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject and peer vehicles, that VW has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that VW is planning to issue within the next 120 days.

8. 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 alleged defect in the subject and peer vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, VW. 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. Brief summary of the subject and objective of the action;
   e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
   f. 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.

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

   Also, provide the above information for any modification or change that VW is aware of which may be incorporated into vehicle production within the next 120 days.

10. State the number of fuel injector lines that VW has sold that may be used in the subject and peer vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used and month/year of sale (including the cut-off date for sales, if applicable).

    For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also identify by make, model and model year, any other vehicles of which VW is aware that contain the identical component, whether

installed in production or in service, and state the applicable dates of production or service usage.

11. Provide one sample of each of the following:
    a. A rail with injector lines assembled in the same orientation as when installed in the subject vehicles with all known leak points marked on each line/fitting;
    b. A field return part representative of a worst case leak condition; and
    c. A field return part representative of the most commonly observed leak condition.

12. Provide the following information regarding the design and manufacture of the subject components:
    a. For each high-pressure fuel line from the rail to the injectors state the length from the rail to the injector, the number of bends, radius of each bend, and the inner and outer line diameters;
    b. State whether any of the bend radii may be reduced during final assembly/installation;
    c. State the material composition of the fuel lines;
    d. Describe the manufacturing process used for the fuel lines, including interior surface finishing and all processes used to enhance the fatigue strength of the parts;
    e. State the design ultimate tube strength and fatigue strength for each injector line;
    f. Describe, and provide copies of all documents relating to, all computer modeling analyses of maximum line inner and outer surface stresses for each line;
    g. Describe the design of the fittings at the rail and injectors, including cross sectional views/diagrams (if line fittings have been identified by VW as one of the leak paths for the subject components, include a sectioned sample of a fitting in the sample parts request);
    h. Describe the pressure pulses in the subject injector lines, including the amplitudes and frequencies of pressure waves under full range of engine operating conditions;
    i. Describe all strength and fatigue specifications and testing for the subject injector lines; and
    j. Identify all other design parameters, specifications and testing that VW considers relevant to the alleged defect in the subject vehicles.

13. Provide the following information regarding the alleged defect in the subject components:
    a. State the maximum leak rate observed in incident vehicles and in testing conducted by or for VW,
    b. State the maximum quantity of leakage observed or alleged in incident vehicles;
    c. Describe the fuel leakage characteristics and pattern (directed jet, spray mist, drip, etc);
    d. Describe all areas potentially covered/wetted by leaked fuel in incident vehicles (or in testing/simulations conducted by or for VW) and show them in a top view diagram of the engine compartment;
    e. Identify all underhood components with maximum OPERATING surface temperatures greater than 250 °C and provide a top view diagram of the engine compartment showing the location of each and the maximum temperature for each (state all conditions associated with the temperature measurement test – e.g., ambient temperature, load/speed duty cycle, etc.);

f. Identify all underhood components with maximum HOT SOAK surface temperatures greater than 250 °C and provide a top view diagram of the engine compartment showing the location of each and the maximum temperature for each (state all conditions associated with the temperature measurement test); and
g. If no components are identified in response to 13.e or 13.f, or if none of the components identified are located within the leak area described in 13.d, identify the components with the maximum operating and hot soak surface temperatures (1) in the engine compartment; and (2) in the leak area.

14. Furnish VW's assessment of the alleged defect in the subject vehicle, 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, including the following information/ assessments: (1) potential for vehicle fire; (2) potential for injury from high pressure fluid leakage; and (3) potential for road hazard from leaked diesel fuel;
e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning; and
f. The reports included with this inquiry.

This letter is being sent to VW pursuant to 49 U.S.C. § 30166, which authorizes NHTSA to conduct any investigation that may be necessary to enforce Chapter 301 of Title 49 and to request reports and the production of things. It constitutes a new request for information. VW's failure to respond promptly and fully to this letter could subject VW to civil penalties pursuant to 49 U.S.C. § 30165 or lead to an action for injunctive relief pursuant to 49 U.S.C. § 30163. (Other remedies and sanctions are available as well.) Section 5(a) of the TREAD Act, codified at 49 U.S.C. § 30165(b), provides for civil penalties of up to $6,000 per day, with a maximum of $16,375,000 for a related series of violations, for failing or refusing to perform an act required under 49 U.S.C. § 30166. *See* 49 CFR 578.6 (as amended by 71 Fed. Reg. 28279 (May 16, 2006)). This includes failing to respond to ODI information requests.

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

VW's response to this letter, in duplicate, together with a copy of any confidentiality request, must be submitted to this office by October 5, 2011. **All business confidential information must be submitted directly to the Office of Chief Counsel as described in the following paragraph and should not be sent to this office.** In addition, do not submit any business confidential information in the body of the letter submitted to this office. Please refer to PE11-

023 in VW's response to this letter and in any confidentiality request submitted to the Office of Chief Counsel. If VW finds that it is unable to provide all of the information requested within the time allotted, VW must request an extension from me at (202) 366-5207 no later than five business days before the response due date. If VW 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 VW then has available, even if an extension has been granted.

If VW 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, VW must submit supporting information together with the materials that are the subject of the confidentiality request, in accordance with 49 CFR Part 512, as amended, to the Office of Chief Counsel (NCC-111), National Highway Traffic Safety Administration, Room W41-227, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. VW 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.** Please remember that the word "CONFIDENTIAL BUSINESS INFORMATION" must appear at the top of each page containing information claimed to be confidential, and the information must be clearly identified in accordance with 5 U.S.C. § 512.6. If you submit a request for confidentiality for all or part of your response to this IR, that is in an electronic format (e.g., CD-ROM), your request and associated submission must conform to the new requirements in NHTSA's Confidential Business Information Rule regarding submissions in electronic formats (49 CFR 512.6(c)). See Federal Register, volume 72, page 59434 (October 19, 2007).

Please send email notification to Kerrin Bressant (kerrin.bressant@dot.gov) and to ODI_IRresponse@dot.gov when VW sends its response to this office and indicate whether there is confidential information as part of VW response.

If you have any technical questions concerning this matter, please call Kerrin Bressant of my staff at (202) 366-1110.

Sincerely,

Jeffrey Quandt, Chief
Vehicle Control Division
Office of Defects Investigation

Enclosure 1, one CD ROM titled Data Collection Disc containing seven files -
VOQs associated with the opening Resume: 10394021, 10396947, 10396450, 10411890, 10401302, 10353458, 10404208, 10412489