

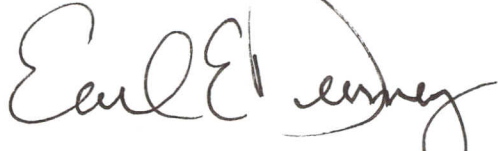


United States Department of the Interior Office of Inspector General

November 4, 2008

Memorandum

To: Debra E. Sonderman
Director, Office of Acquisition and Property Management

From: Earl E. Devaney 
Inspector General

Subject: Department of the Interior (DOI) Fuels Consumption Data is
Incorrectly Reported (C-IS-MOI-0008-2008)

The Office of Inspector General (OIG) initiated an inspection to determine whether DOI is meeting specific requirements of Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management." Using a base year of FY 2005, this Order requires agencies to decrease consumption of petroleum-based fuels by 2 percent annually, and to increase consumption of alternative fuels by 10 percent annually.

We terminated our inspection because we found both petroleum-based and alternative fuel consumption figures to be significantly flawed. DOI reported a 6 percent decrease in the consumption of petroleum-based fuels from FY 2005 to FY 2007. We determined, however, that DOI misreported its fuel consumption due to errors with bureaus' fuel data. Based on corrections of known errors, we estimate that DOI may have *increased* its consumption by as much as 22 percent for that period. Poor data quality also calls into question DOI's reported 58 percent increase in alternative fuel consumption.

This report contains two recommendations that, if implemented, should correct reporting errors in the FY 2005 baseline and more accurately reflect DOI fuel consumption performance when reported to the U.S. Congress and the Department of Energy.

We would appreciate being kept apprised of the actions DOI takes on our recommendations as we will track the status of their implementation. Please provide a written response to our office within 30 days that identifies plans to address the findings and recommendations cited in this report.



United States Department of the Interior Office of Inspector General

November 2008

Executive Order 13423

Section 2, paragraph (g)
of this Order requires
federal agencies to —

Decrease petroleum fuel
consumption by 2% annually.

Increase fleet alternative
fuel consumption by 10%
annually.

**All DOI bureaus that
operate a fleet of 20
vehicles or more must
meet Executive Order
13423 fuel consumption
requirements. Fuel consumption for all light,
medium, and heavy duty
vehicles must be
reported — except those
designated for law
enforcement and
emergency purposes.**



INSPECTION REPORT C-IS-MOI-0008-2008

DOI Fuels Consumption Data is Incorrectly Reported

In response to the requirements of Executive Order 13423, “Strengthening Federal Environmental, Energy, and Transportation Management,” the Department of the Interior (DOI) has reported its fuel consumption performance to the Department of Energy (DOE) for FY 2005 through FY 2007. The Office of Inspector General (OIG) took the opportunity to assess DOI fuel consumption data for its bureaus’ fleets.

DOI reports that it has exceeded both its petroleum fuel reduction requirements and its goal of increasing alternative fuel consumption. However, we determined that DOI misreported fuel consumption due to errors in the bureaus’ fuel data. In terms of petroleum-based fuels, we estimate that DOI may have actually **increased** its consumption by as much as 22 percent from FY 2005 to FY 2007. Poor data quality also calls into question the reported 58 percent increase in alternative fuel consumption. As a result, we were unable to determine whether DOI is meeting the fuel consumption requirements of Executive Order 13423 and terminated our inspection.



National Park
Service (NPS)
**10,693
Vehicles**



Bureau of
Indian Affairs
(BIA)
**7,608
Vehicles**



Fish and
Wildlife
Service (FWS)
**7,261
Vehicles**



Bureau of
Land
Management
(BLM)
**5,497
Vehicles**



United States
Geological
Survey
(USGS)
**4,460
Vehicles**



Bureau of
Reclamation
(BOR)
**1,961
Vehicles**



Office of
Surface
Mining
(OSM)
150 Vehicles



Minerals
Management
Service
(MMS)
40 Vehicles

The bureaus are required to comply with Executive Order 13423 due to their fleet sizes

Petroleum Fuel Consumption

Petroleum-based Fuel Consumption is the amount of gasoline and diesel fuel used by a fleet.

OIG Analysis

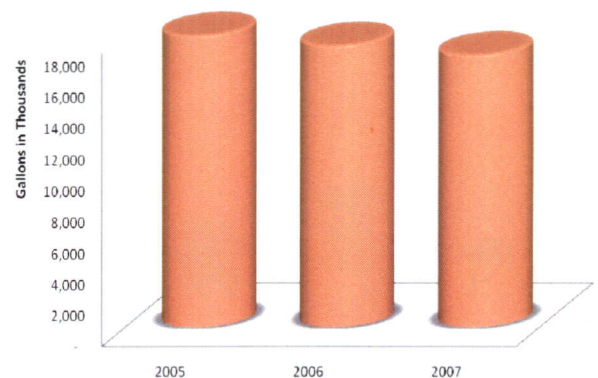
This Office initially performed a limited assessment of all DOI bureaus' transportation management.

We then conducted an in-depth analysis of the fuel consumption data in the Federal Automotive Statistical Tool (FAST) for BIA, BOR, FWS, NPS, and USGS.

These bureaus had the bigger fleets and larger reported fuel consumptions.

Executive Order 13423 requires federal agencies to decrease petroleum fuel consumption by 2 percent annually from a FY 2005 baseline. In its report to DOE, DOI states that it reduced petroleum-based fuels consumption by 3 percent in both FYs 2006 and 2007 and reports reductions in petroleum fuels of approximately 1.3 million gallons over the 2-year period. In fact, we estimate that DOI may have **increased** petroleum fuel consumption by as much as 22 percent from FY 2005 to FY 2007.

Reported Decrease in Petroleum Fuel Consumption Reported to DOE in the E.O. 13423 Fuel Consumption Report

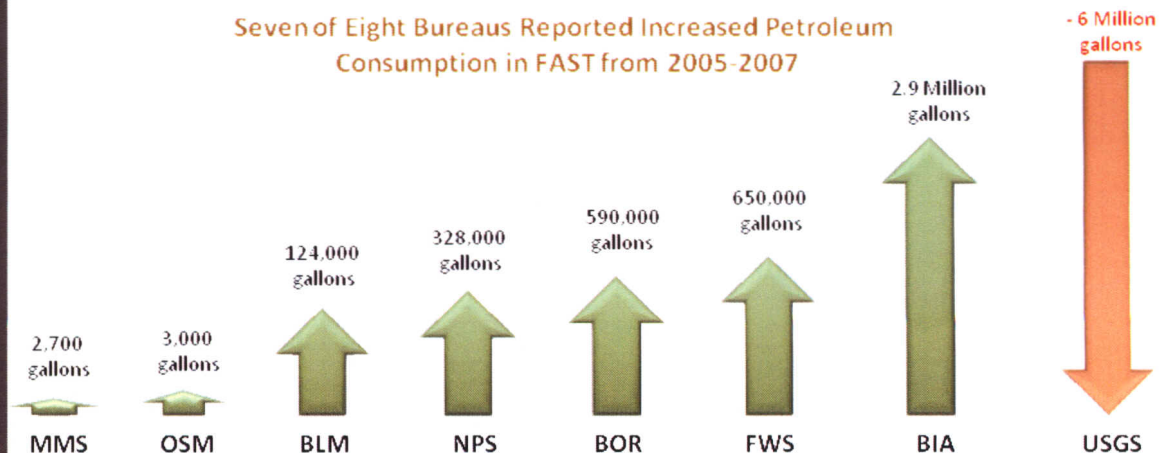


Seven of Eight DOI Bureaus Report Petroleum Consumption Increases

DOI's bureau fleet managers report their fuel consumption into the Federal Automotive Statistical Tool (FAST), a compliance reporting database managed by DOE. Interestingly, seven of DOI's eight bureaus' input increases in petroleum consumption from FY 2005 to FY 2007; these range from 2,700 gallons for Minerals Management Service (MMS) to 2.9 million gallons for Bureau of Indian Affairs (BIA).

Only the U.S. Geological Survey (USGS) reported a decrease — 6 million gallons, which more than offset the other bureaus' increases. The result is the overall reported decrease in petroleum consumption. We found, however, that USGS misreported its petroleum consumption and that other bureaus' data contained errors, as well.

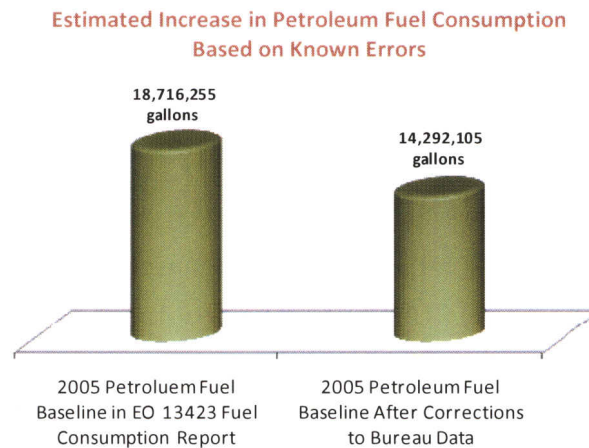
Seven of Eight Bureaus Reported Increased Petroleum Consumption in FAST from 2005-2007



2005 Baseline Needs to be Adjusted

USGS, BOR, and the U.S. Fish and Wildlife Service (FWS) all submitted flawed data that affected the FY 2005 baseline. If the errors we identified were to be corrected in FAST, we estimate the baseline would be reduced from the reported 18.7 million gallons of petroleum consumed to 14.3 million gallons.

DOI told us both USGS and FWS reported revised baseline petroleum fuel data that would have reduced the 2005 baseline, however the numbers were never formally changed in FAST nor in any reporting to DOE.



Federal Automotive Statistical Tool

Federal agencies report their fuel use in FAST, a compliance reporting database administered by DOE.

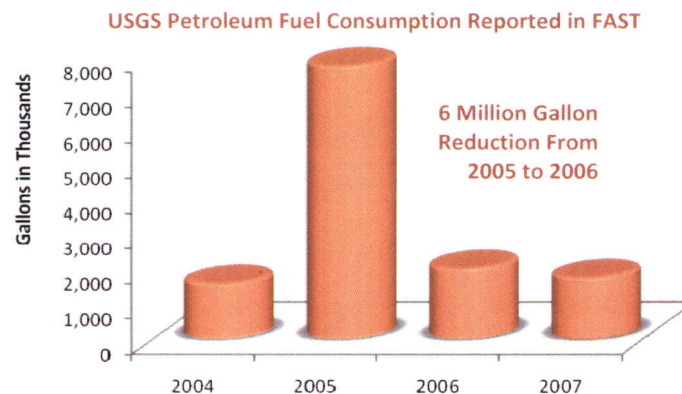
DOE then provides a comprehensive report addressing the requirements of EO 13423 to the Congress, each year.

Bureaus Did Not Identify or Correct Obvious Data Errors

USGS

In FAST, USGS reports 7.7 million gallons of petroleum fuel used in the FY 2005 baseline. Given that the consumption amounts reported in FYs 2004, 2006, and 2007 are all less than 2 million gallons, we concluded that the reported fuel consumption for FY 2005 is inaccurate. According to USGS, DOI managers are aware of this error but have not made a correction.

Neither DOI nor USGS were able to provide the actual consumption figure for FY 2005. Therefore, we used 1.8 million gallons in our estimate of the petroleum fuel consumption for FY 2005, the average consumption for FYs 2004 and 2006.



BOR Petroleum Fuel Consumption

This Bureau underreported its FY 2005 petroleum consumption by 600,469 gallons in FAST.

The System's data validation report then alerted DOI and BOR of the mistake.

Neither BOR nor DOI has done anything, however, to correct the error.

FWS

Fleet managers stated they have very little faith in reported data.

BOR

BOR submitted the following petroleum-based fuel consumption data in gallons by fiscal year for inclusion in FAST:

2005	972
2006	432,948
2007	590,703

When we spoke with BOR representatives, they were able to provide documentation that shows FY 2005 BOR petroleum-based fuel consumption was actually 601,441 gallons. Therefore, BOR under-reported its petroleum consumption by 600,469 gallons in FY 2005. We contacted both BOR and DOI managers to see if they know about the inconsistency apparent in the FY 2005 data. No one was aware of the under-reported amount before we pointed it out.

FWS

In FY 2007, FWS reviewed its reported data in FAST and concluded that it had understated its FY 2005 petroleum-based fuel consumption by 578,000 gallons. In a memorandum to DOI, FWS identifies the mistake and states that correcting the error would increase fuel consumption for FY 2005. When we contacted DOI representatives about the revision, they told us that they had not received the FWS information in time to include it in the adjusted petroleum baseline.

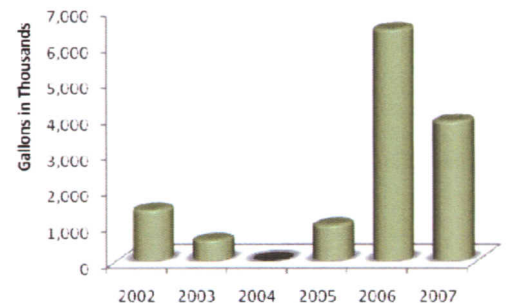
Another Anomaly

BIA

BIA submitted the following petroleum-based fuel consumption data in gallons by fiscal year for inclusion in FAST:

2002	1,394,331
2003	568,113
2004	0
2005	980,859
2006	6,435,356
2007	3,875,370

BIA Petroleum Consumption Reported in FAST



Given the range of numbers reported from FY 2002 through FY 2007, it is impossible to determine if BIA over-reported or under-reported fuel consumption data. According

to BIA, the FAST System contains the best data available for its fuel consumption. If BIA's data is incorrect, an adjustment would clearly affect DOI's overall consumption numbers. However, we were unable to determine what the effect would be because the data was so flawed.

Alternative Fuel Consumption

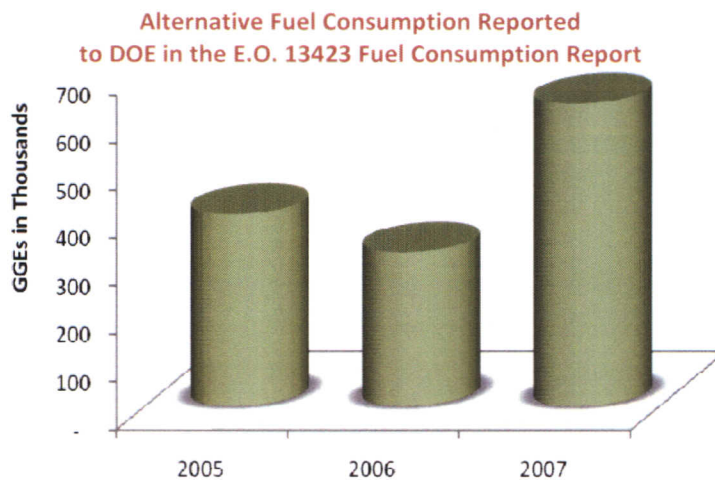
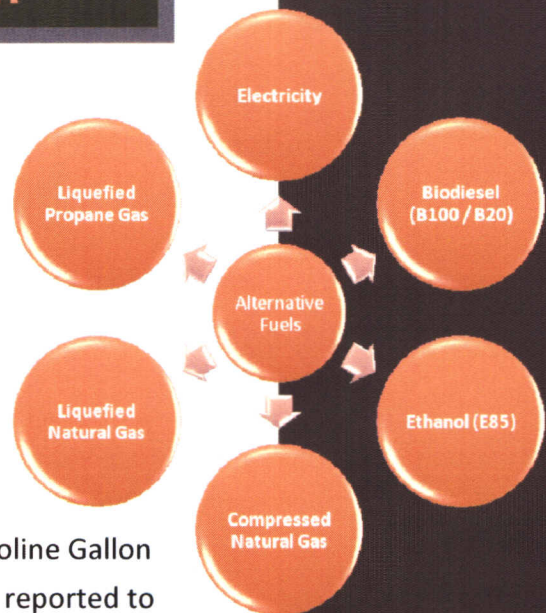
Executive Order 13423 requires federal agencies to increase alternative fuel consumption by 10 percent annually. The increase is measured relative to the prior year's alternative fuel consumption levels.

DOI reported that it did not meet its alternative fuel consumption goal in FY 2006. However, in FY 2007, DOI reported a 58 percent increase in alternative fuel consumption from FY 2005. This reported alternative fuel consumption data also appears flawed.

For example, the data in FAST shows approximately 1.2 million Gasoline Gallon Equivalents (GGEs) of alternative fuel consumed while the quantity reported to DOE was significantly less at 400,000 GGEs.

DOI stated in a December 10, 2007 e-mail to DOE that the reported GGEs in FAST were incorrect and requested that DOE allow a significant adjustment to its FY 2005 alternative fuel figures, thus reducing reported consumption by 800,000 GGEs. DOE accepted the 800,000 GGE reduction as reasonable based on prior year trends. However, DOI did not provide documentation to support this adjustment.

Although we agree that the FAST data appears incorrect, we cannot conclude that the adjusted figures are a more accurate reflection of DOI alternative fuel consumption.



Gasoline Gallon Equivalents

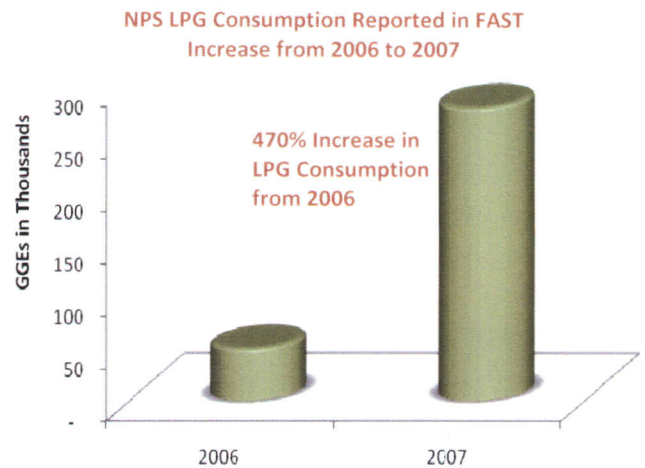
Alternative fuels such as liquid propane gas, electricity, ethanol, and biodiesel are reported in GGEs.

For purpose of comparison to traditional fuel gallons, a different formula is used to convert the amounts of each fuel.

Alternative Fuel Anomalies Have Been Reported in FAST

We reviewed the bureaus' alternative fuel data in FAST and found significant anomalies in the NPS, BIA, and BOR data. Excessive and unrealistic percentage increases in alternative fuel consumption led us to believe that input errors in FAST are as prevalent for alternative fuels as they are for petroleum-based fuels.

For example, NPS reported approximately 49,000 GGEs of liquid propane gas (LPG) consumed in FY 2006. In FY 2007, it reported 279,000 GGEs of LPG, which represents a 470 percent increase from the prior year. When we reviewed NPS FAST data for the number of vehicles and corresponding mileage, we could not identify a reasonable explanation for such a large increase from FY 2006 to FY 2007.



We also noted questionable trends associated with BIA- and BOR-reported alternative fuel data. For example, BOR reports that it increased alternative fuel consumption from 28 GGEs in FY 2005 to 4,263 GGEs in FY 2007, a 15,000 percent increase. In the case of BIA, the Bureau reports a 5,000 percent increase in alternative fuel consumption from FY 2005 to FY 2007, increasing reported consumption from 1,769 GGEs to 88,481 GGEs.

In addition, it appears that BIA has misreported the types of alternative fuels consumed. For example, nearly all of BIA's alternative fuel consumption (1,680 of 1,769 GGEs) in FY 2005 came from biodiesel. However, BIA reported no biodiesel fuel for FY 2007. In addition, nearly all of BIA's alternative fuel usage in FY 2007 (85,927 of 88,481 GGEs) came from E-85 ethanol (a mixture of 85 percent ethanol and 15 percent gasoline), though BIA reported no E-85 ethanol consumption for FY 2005.

We recognize that volumes for these two bureaus are small and that small increases in consumption can result in large percentage increases. We also recognize that due to the small numbers for FYs 2005-2007, it is possible that the increases may be accurate, and bureaus may be using significantly more alternative fuel. At a minimum, however, data accuracy must be determined.

Reliability of FAST Data Questioned

According to fleet managers at one bureau, the figures [in FAST] were "so outlandish, we couldn't believe it."

Recommendations

Because of the number and significance of the errors we found, we recommend DOI:

- ⇒ Ensure bureau fleet managers perform an in-depth review of the FY 2005 FAST data for each bureau to ensure it is as accurate and reasonable as possible.
- ⇒ Request DOE make adjustments in the FAST System based on the results of the detailed analysis.

At this time, we do not believe DOI should review and adjust fuel consumption data for FYs 2006 or 2007. Although we did find some errors in FYs 2006 and 2007 data, we suggest DOI and its bureaus conserve their limited resources and concentrate their efforts on the FY 2005 baseline and data being reported for FY 2008 and beyond.

Scope and Methodology

We conducted our inspection to determine if DOI and its bureaus are meeting the fuel consumption requirements of Executive Order 13423.

We concentrated on petroleum-based and alternative fuel consumption data reported in the FAST System from FY 2005 through FY 2007. In the cases of BIA and USGS petroleum-based fuel consumption, we reviewed additional data (FYs 2002-2004) to get a better idea of how much fuel the two bureaus consumed over time.

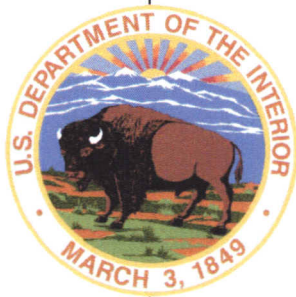
We conducted limited tests of the FAST data to identify misreported consumption. It is likely that our limited procedures did not uncover all errors in the consumption data.

DOI reported no plug-in hybrid vehicles because they are not yet commercially available at a reasonable cost. According to DOE, the auto industry has plug-in hybrids under development, and they are hopeful the vehicles will become commercially available by 2010.

Significant Errors in reported data for multiple bureaus preclude any reasonable assurance that DOI is meeting fuel consumption requirements.

Consequently, the OIG was unable to determine the fuel performance DOI should be reporting to DOE and, ultimately, the U. S. Congress.

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