



Federal Fleet Compliance with Executive Order 13149

Fiscal Year 2000 First Annual Report

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ACRONYMS

AFV	Alternative Fuel Vehicle
B20	Biodiesel blended fuel that is 20 percent biodiesel with 80 percent petroleum diesel
B100	Neat biodiesel fuel
CMSA	Consolidated Metropolitan Statistical Area
CNG	Compressed Natural Gas
DCMA	Defense Contract Management Agency
DIA	Defense Intelligence Agency
DLA	Defense Logistics Agency
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOS	U.S. Department of State
E85	Ethanol-blended fuel that is at least 85 percent ethanol and 15 percent petroleum
ECRA	Energy Conservation Reauthorization Act of 1998, Public Law 105-388
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 1992, Public Law 102-486
E.O. 13149	Executive Order 13149, “Greening the Government through Federal Fleet and Transportation Efficiency,” 65 FR 24607
FAST	Federal Automotive Statistical Tool (the Federal fleet’s Web-based data collection and reporting system, at http://fastweb.inel.gov)
FY	Fiscal year
GGE	Gasoline gallon equivalent
GSA	General Services Administration
GVWR	Gross vehicle weight rating
HHS	U.S. Department of Health and Human Services
HUD	U.S. Department of Housing and Urban Development
LDV	Light duty vehicle
mpg	Miles per gallon
MSA	Metropolitan Statistical Area
NASA	National Aeronautics and Space Administration
SSA	U.S. Social Security Administration
U.S.	United States
USMC	U.S. Marine Corps
USPS	U.S. Postal Service
VA	U.S. Department of Veterans Affairs

EXECUTIVE SUMMARY

Section 301(b)(8) of Executive Order (E.O.) 13149, "Greening the Government through Federal Fleet and Transportation Efficiency," directed the U.S. Department of Energy (DOE) to prepare this report. This report assesses the performance of Federal agencies in fiscal year (FY) 2000 in meeting the goals and objectives of E.O. 13149 and the associated alternative fuel vehicle (AFV) requirements of the Energy Policy Act of 1992 (EPAct). An overview of the status of each agency's *Strategy for Compliance with E.O. 13149* is also discussed.

The primary requirement of E.O. 13149 is that Federal agencies decrease their fleet's petroleum (i.e., gasoline and diesel) consumption by 20 percent by FY 2005 compared to FY 1999 consumption. A 20 percent reduction in petroleum use by Federal fleets by FY 2005 equates to a reduction in petroleum fuel of approximately 45 million gallons per year. In energy terms this equates to 1,071,429 barrels per year or 2,935 barrels per day. The 20 percent reduction in petroleum fuel use also will lead to a reduction in greenhouse gas emissions of approximately 125,000 tons per year of carbon (450,000 tons per year CO₂-equivalent). To achieve the goal of a 20 percent reduction in petroleum consumption by FY 2005, it is estimated that petroleum use must be reduced by an average of about 3.7 percent per year from FY 2000 through FY 2005.

In FY 2000, petroleum consumption by Federal fleets covered by E.O. 13149 increased by 2 percent compared to a FY 1999 baseline. Since E.O. 13149 was signed in April 2000, more than half-way through the FY, covered agencies had only a few months in FY 2000 to plan for and implement measures to reduce petroleum consumption. Measures developed and implemented in FY 2001 should demonstrate decreased petroleum consumption over the next few years. These measures include AFV acquisition, alternative fuel use, and increased fuel economy of non-AFV, light-duty vehicle acquisitions.

E.O. 13149 also emphasizes agency compliance with EPAct. EPAct requires covered agencies to acquire a certain percentage of AFVs as they replace vehicles in their fleets.

For EPAct-covered Federal agencies, FY 2000 AFV acquisitions accounted for 44 percent of covered light-duty vehicle (LDV) acquisitions, short of the 75 percent requirement [set forth in EPAct] for that year. Seven of the 18 covered agencies met the 75 percent requirement: the General Services Administration (GSA), DOE, the Environmental Protection Agency (EPA), Executive Office of the President (EOP), the U.S. Postal Service (USPS), the Department of State, and the Department of Housing and Urban Development (HUD). HUD took exemptions for all of its fleets but acquired one AFV without having a requirement to obtain any under EPAct exemption rules. Although the Department of Defense as a whole did not meet the 75 percent requirement, the U.S. Marine Corps (USMC) and the Corps of Engineers did meet this requirement individually.

In FY 2000, EPAct-covered agencies acquired 7,949 AFVs and independent agencies acquired 28 AFVs for a total of 7,977 AFVs. This is an increase of 19 percent from the previous year, bringing the total inventory of AFVs in the Federal fleet (including independent agencies) to 55,321. Agencies earn one AFV acquisition credit toward EPAct compliance for each AFV acquisition, regardless of geographic placement or exemption status. To maintain the emphasis on actual alternative fuel use, E.O. 13149 allocates additional EPAct credits for vehicles that operate only on alternative fuel (i.e., "dedicated" vehicles as compared to vehicles that are flex- or bi-fuel). Beyond AFV acquisitions, additional EPAct credits are generated when fleets use biodiesel blends as fuel (typically B20, a blend of 20 percent biodiesel with 80 percent petroleum diesel). EPAct-covered agencies generated 1,266 additional credits in FY 2000 for a total of 9,215 EPAct credits.

E.O. 13149 requires agencies to use alternative fuel in their AFVs the majority of the time by FY 2005 (at least 51 percent). Only the USMC and the Department of Veterans Affairs (VA) reported using alternative fuels the majority of the time in FY 2000. Most agencies did not report the data necessary to

determine this value. Of the 18 organizations that reported data, the Department of Transportation, the Army, the Air Force, and the Defense Logistics Agency reported using alternative fuels less than 5 percent of the time in FY 2000. Even so, more than 1.3 million gasoline gallon equivalents (GGE) of alternative fuels were consumed in FY 2000 by Federal fleets.

E.O. 13149 also requires agencies to increase the miles per gallon (mpg) rating of LDV acquisitions, excluding AFVs. The first requirement is an increase of 1 mpg in the fuel economy ratings of LDV acquisitions by FY 2002; the second is an increase of 3 mpg by FY 2005, compared to the fuel economy of the agencies' light-duty, non-AFV acquisitions in FY 1999. The Departments of Agriculture, Interior, Justice, Transportation, and Army and the EPA increased the fuel economy of covered vehicles by 1 mpg in FY 2000. DOE, DOS, the Corps of Engineers, the VA, and the Navy exceeded this goal. The Department of Health and Human Services (HHS) and the Air Force reported decreased fuel economy of their vehicle acquisitions.

E.O. 13149 requires that each agency submit a strategy describing its five-year approach to meeting the requirements of E.O. 13149, starting in FY 2000. All agencies have submitted a strategy at least in draft form. DOE is working with agencies to develop acceptable strategies for meeting the goals of the E.O.

DOE will continue to provide guidance to agencies and fleets regarding requirements and assistance in meeting those requirements. DOE is also working with GSA to improve the Federal Automotive Statistical Tool (FAST), the Web-based vehicle and fuel use data collection and reporting system, and the process for ordering and using AFVs.

BACKGROUND

E.O. 13149, Title III of EPAct, and the Energy Conservation Reauthorization Act (ECRA) of 1998, which amended EPAct, established requirements for Federal fleets to reduce petroleum consumption, acquire AFVs, and use alternative fuel.

Executive Order 13149

The purpose of E.O. 13149 (65 FR 24607, April 21, 2000), “Greening the Government through Federal Fleet and Transportation Efficiency,” is to ensure that the Federal Government exercises leadership in reducing petroleum consumption through fleet fuel efficiency improvements and the use of alternative fuels in AFVs.

Under E.O. 13149, each Federal agency with 20 or more vehicles in the U.S. must reduce its annual petroleum use by at least 20 percent by FY 2005 compared to the agency’s FY 1999 baseline petroleum consumption. Independent agencies and agencies with fewer than 20 vehicles are exempted from coverage, but are encouraged to comply with the provisions of this E.O.

Although the method by which Federal agencies achieve the 20 percent petroleum use reduction is not rigidly prescribed, according to EPAct agencies must acquire a certain percentage of AFVs when replacing fleet vehicles (by purchase, lease from GSA, or commercial lease). Under E.O. 13149, by FY 2005, agencies must use alternative fuels in AFVs for a majority (at least 51 percent) of the time these AFVs are in operation. Agencies must also increase the average DOE/EPA Fleet Fuel Economy Guide rating of all light-duty, non-AFV acquisitions by at least 1 mpg by FY 2002 and 3 mpg by FY 2005 compared to FY 1999 fuel economy data.

Federal agencies may choose to use additional, creative approaches for complying with E.O. 13149. Possible approaches include reductions in fleet size and vehicle miles traveled, or improved efficiency of fleet management and vehicle use.

In the summer of 2000, DOE issued guidance to agencies on complying with the requirements of E.O. 13149. This guidance detailed preparing compliance strategies, designating responsible senior level officials, and reporting compliance data. In the fall of 2000, DOE and GSA unveiled FAST, available at <http://fastweb.inel.gov>, which is an on-line reporting system. Federal agencies must use FAST to collect and compile data concerning petroleum consumption, conventional and alternative fuel vehicle acquisition and inventory, alternative fuel consumption in AFVs, fuel efficiency of vehicle acquisitions, and vehicle operations. Agencies’ vehicle acquisition data is to be reported for the prior, current, and subsequent FYs..

Energy Policy Act of 1992

EPAct established annual AFV acquisition targets for Federal agencies. In FY 1999 and thereafter, 75 percent of a Federal fleet’s covered vehicle acquisitions must be AFVs. These requirements apply to fleets with 20 or more LDVs operating primarily in a Metropolitan Statistical Area (MSA) or Consolidated Metropolitan Statistical Area (CMSA) with a population of 250,000 or more, according to 1980 census data. Vehicles heavier than 8,500 lbs. gross vehicle weight rating (GVWR) or not located or operated primarily in a covered MSA or CMSA are exempt from the requirements of EPAct. Law enforcement, emergency, and military tactical vehicles are also exempt from this requirement.

Compliance with EPAct is met by AFV acquisition “credits,” which are granted based on the number of AFVs acquired and the quantity of biodiesel fuel used. Agencies earn one AFV acquisition credit toward EPAct compliance for each AFV acquisition, regardless of geographic placement or exemption status. To maintain the emphasis on actual alternative fuel use, E.O. 13149 allows fleets to receive additional credits for acquiring dedicated alternative fuel vehicles. Dedicated alternative fuel medium- and heavy-duty

vehicles earn multiple credits because they displace more petroleum on a per-mile basis than LDVs. Fleets may also earn credits based on the quantity of biodiesel used in a FY. Credits accrued by the Federal fleets do not carry over from one FY to the next, nor can these credits be traded among Federal fleets.

Energy Conservation Reauthorization Act of 1998

ECRA, Public Law 105-388, amended EPAAct to allow one AFV acquisition credit for every 450 gallons of biodiesel purchased for use in diesel vehicles of more than 8,500 lbs. GVWR. To receive credit for an AFV acquisition, the biodiesel must be neat (also known as B100) or in blends that contain at least 20 percent biodiesel (B20) by volume. B100 is equivalent to 2,250 gallons of B20.

Federal fleets are only allowed to use these credits to fulfill up to 50 percent of their EPAAct requirements. These credits can only be claimed in the year in which the fuel is purchased for use, and they cannot be traded among fleets.

Under this authority, Federal agencies are also required to provide an annual compliance report to Congress by November 13 of the reporting year, starting in FY 1999 and continuing for the following 14 years. The report must address compliance with the requirements of EPAAct and related executive orders and detail a plan for attaining compliance if the reporting agency has not met its requirements. This report must be placed on a publicly available Web site, and a notice of its availability must be published in the *Federal Register*, including the Web site address.

ANNUAL COMPLIANCE REPORTS

As previously noted, ECRA requires covered fleets to provide Congress with an annual report on compliance activities. The written report must include a discussion of agency petroleum and alternative fuel consumption data, and average fuel economy numbers for non-AFV LDV acquisitions. Each agency must submit a copy of its report to DOE. DOE then evaluates the reports and forwards a consolidated report, *Federal Fleet Compliance with E.O. 13149*, to the President.

A total of 18 Federal agencies (see Table 1 and Table 4) are covered by these requirements. As of the draft date of this report, all agencies have entered at least partial fleet data for FY 2000 into FAST, but not all have submitted a copy of their written reports to DOE addressing FY 2000 AFV acquisition requirements and plans for FY 2001 and FY 2002. The data submitted in FAST must be attached to the text portion of the report and sent to DOE to be considered official. The following agencies have not yet submitted to DOE a copy of their official annual written compliance report:

U.S. Department of Defense (U.S. Army, U.S. Air Force, and Corps of Engineers)
U.S. Department of Labor
U.S. Department of Treasury
General Services Administration
National Aeronautics and Space Administration
Executive Office of the President

Agency Compliance with Executive Order 13149

Agency compliance with E.O. 13149 in FY 2000 is summarized in Table 1. Each agency is required to provide its FY 1999 petroleum consumption in its fleet vehicles as its baseline value against which all future vehicle fleet petroleum-use data is measured. The value shown in Table 1 for petroleum consumption in FY 2000 is compared with the baseline figure to determine the percentage reduction in petroleum use for this first reporting cycle.

To fulfill these requirements, agencies must provide the types and quantities of alternative fuels used, in GGE, in its AFVs for FY 2000. By the end of 2005, each agency is required to use alternative fuel in its

AFVs the majority of the time these vehicles are in operation.

The average fleet fuel economy for light-duty, non-AFV acquisitions, for the FY 1999 baseline and the FY 2000 reporting cycle, was calculated by agencies based on the DOE/EPA Fleet Fuel Economy Guide (www.fueleconomy.gov). Although mpg increases were not required in FY 2000, the information is intended to help agencies track their progress toward meeting the FY 2002 and FY 2005 fuel economy goals of E.O. 13149, in addition to the petroleum reduction and alternative fuel use goals due in FY 2005.

Since E.O. 13149 was signed in April 2000, the data collected represents the early steps taken by agencies to implement this directive. Note that FY 1999 data, which was actually collected in FY 2000, was the first set of data of this kind gathered by the Federal fleets and appropriate mechanisms for accurate data collection were not yet in place. With some uncertainty inherent in FY 1999 numbers, it is expected that agencies will include revised FY 1999 data in their reports submitted for FY 2001.

Since the stated objective of E.O. 13149 is to reduce petroleum consumption in Federal vehicles by 20 percent by 2005, all agencies are currently considered to be compliant with all the provisions specified for FY 2000 in the E.O. The next milestone to be accomplished will be achieving a 1 mpg increase in fuel economy in FY 2002.

Petroleum Consumption: During FY 2000, all the Federal fleets together increased petroleum (gasoline and diesel) consumption from 274,011,361 GGE in FY 1999, to 278,559,995 GGE, a 2.0 percent increase (Table 1). Because FY 2000 was the first year that agencies were asked to report petroleum consumption data, many experienced difficulty in collecting accurate information, and it is possible that many agencies inaccurately reported 1999 baseline petroleum consumption, as well as FY 2000 petroleum consumption. This data is likely to be more precise in the coming years as agencies modify their operating procedures to collect this information.

Significant petroleum reductions were achieved at the National Aeronautics and Space Administration (NASA), due to budgetary cuts that resulted in a reduced number of fleet vehicles. NASA found that it had underreported approximately 2,000 LDV in the FAST database system for FY 2000; the fuel consumption figures, however, were reported accurately. The Departments of Justice, Labor, State, and Energy and the EPA reported more modest petroleum reductions. Every other agency reported increased consumption, including a 19 percent increase at HUD. Note that a portion of the increased petroleum consumption by the Department of Commerce may be accounted for by the activities of the Census Bureau in collecting data for the 2000 Census.

Agencies cannot modify or add data to the system after the FAST database closes for that FY. Each agency is, however, able to make corrections, including underreported information, in its annual written report to Congress.

Table 1. E.O. 13149 COMPLIANCE, FY 2000^a

Agency	Petroleum Consumption			Alternative Fuel Use		Fuel Economy		
	FY 1999 Covered Petroleum Consumption Baseline (GGE) ¹	FY 2000 Covered Petrol. Consumption (GGE) ¹	Consumption Reduction (%) <i>Increases in parentheses</i>	FY 2000 Alternative Fuel Consumption ² (GGE)	Alt Fuel Use in AFVs (%)	FY 1999 Fuel Econ. Baseline ³ (mpg)	FY 2000 Fuel Economy ³ (mpg)	Increased Fuel Economy (mpg) <i>Decreases in parentheses</i>
Agriculture	17,712,621	19,031,277	(7.4)	26,709		17	18	1
Commerce	1,132,791	1,220,019	(7.7)	2,203				
DOD ⁴	71,474,723	73,174,213	(3.5)	259,054				
DOE	5,834,002	5,752,146	1.4 ⁵	76,735	17.0	17	20	3
HHS	4,623,795	4,741,441	(2.5)	101,362	46.3	21	20	(1)
HUD	210,122	250,003	(19.0)	3,357	-- ⁶	23	23	0
Interior	21,221,692	22,485,527	(6.0)	41,992		16	17	1
Justice	1,210,491 ⁷	1,041,136 ⁷	14.0 ⁷	5,120	12.3 ⁷	21	22	1
Labor	3,027,793	2,615,713	13.6	715				
State	91,780	87,549	4.6	831	7.4	16	18	2
Transportation	6,272,999	6,872,948	(9.6)	873	>0.1	24	25	1
Treasury	6,124,401 ⁸	6,124,401 ⁹		791				
Veteran Affairs	6,277,134	6,631,589	(5.6)	2,864	54.9	18	21	3
EPA	622,645	620,267	0.4	1,736		17	18	1
GSA	677,681 ⁸	677,681			6.6	18	18	0
NASA	1,949,566	1,423,857	27.0	22,399		18		
USPS	125,547,125	125,810,718	(0.2)	826,546	10.0			
Ex. Off. of Pres.	78,364 ⁸	78,364						
TOTAL	274,089,725	278,638,849	(2.0)	1,373,287				

^aSource: FAST database, input from agency sources. Lightly shaded areas indicate that data was not submitted; darkly shaded areas indicate that data was insufficient to calculate meaningful totals.

1. In E.O. 13149, "covered" vehicles are all on-road vehicles that are not law enforcement, emergency, or military tactical. Note that FY 1999 data, which was actually collected in FY 2000, was the first set of data of this kind collected by the Federal fleets and appropriate mechanisms often were not in place for accurate data collection. Therefore, some uncertainty is inherent in the FY 1999 numbers, and they may be modified at a later date.
2. Combination of all types of alternative fuels (natural gas, E-85, electricity, biodiesel, M-85, and LPG).
3. LDV acquisitions excluding AFVs.
4. See Appendix A for data by military service.
5. Subsequent to when DOE submitted its FY 2000 EPAAct report to Congress, a report generation anomaly was identified. The submitted report indicates a petroleum consumption reduction value of 3.6 percent. The actual value is 1.4 percent.
6. The data submitted for this field was incorrect and, therefore, not included in this table.
7. Reflects improved data identified by Justice after FAST closed for data input and, therefore, differs from FAST dataset.
8. FY 1999 baseline was not submitted by agency. For the purpose of this report, data from FY 2000 covered petroleum consumption was entered as an estimate.
9. Estimate (approved by Treasury) based on agency-owned data, as reported in FAST, plus estimated consumption in GSA-leased vehicles.

For the purpose of this report, the biodiesel blend (B20) figures entered into FAST have been converted to neat biodiesel (B100) to accurately calculate alternative fuel usage for the Federal fleets. The 80 percent diesel portion of the fuel blend (80 percent diesel, 20 percent biodiesel) has been excluded from the agency's diesel consumption in Table 1, since agencies have not attributed this fuel use to covered vehicles. Some agency fleets may have used B20 in a vast range of off-road diesel engines such as forklifts and building maintenance equipment. Also, the diesel component of B20 (455,042 GGE) represents less than 1 percent of the covered petroleum consumption in Federal fleets in FY 2000.

Agencies are just starting to develop better methods for tracking fuel use and in some cases have submitted incomplete or incorrect estimates. DOE continues to work with agencies to verify and/or correct these numbers. Despite the potential inaccuracies, this information is still useful to the agencies.

NASA Data: After the reporting period had closed, NASA discovered that it did not include data for some of its agency-owned, contractor-operated vehicles in FAST for FY 2000 because it was not clear to NASA at the time which contractors were required to adhere to the requirements of E.O. 13149. NASA estimates it underreported approximately 2,000 LDV. However, these vehicles were all leased through GSA and since GSA provides agencies with the fuel usage for all its vehicles, the fuel consumption data was reported accurately. NASA is taking action to clarify the requirements for contractor-operated vehicles for the next reporting cycle.

Alternative Fuel Use: Federal agencies consumed more than 1.3 million GGE of alternative fuels in FY 2000, replacing gasoline and diesel fuel. The data by fuel type is provided in Table 2 for each agency. Total FY 2000 alternative fuel consumption is also summarized for each agency in Table 1.

Table 2. ALTERNATIVE FUEL CONSUMPTION (in GGE), FY 2000^a							
Agency	CNG	LPG	E85	Electric	M85	Biodiesel (B100)¹	TOTAL
Agriculture	71	0	15,836	0	841	9,961	26,709
Commerce	2,129	0	0	0	0	74	2,203
DOD	171,067	7,484	75,085	934	4,409	75	259,054
DOE	15,112	0	61,128	495	0	0	76,735
HHS	4,338	0	93,249	0	0	3,775	101,362
HUD	3,074	0	0	0	0	283	3,357
Interior	3,869	23,493	290	5	150	14,185	41,992
Justice	1,501	676	2,943	0	0	0	5,120
Labor	715	0	0	0	0	0	715
State	831	0	0	0	0	0	831
Transportation	873	0	0	0	0	0	873
Treasury	189	0	602	0	0	0	791
Veteran	2,864	0	0	0	0	0	2,864
EPA	1,604	0	118	14	0	0	1,736
GSA	0	0	0	0	0	0	0
NASA	5,674	0	6,283	0	8,593	1,849	22,399
USPS	650,021	2,185	90,782	0	0	83,558	826,546
TOTAL	863,932	33,838	346,316	1,448	13,993	113,760	1,373,287

^a Source: FAST database. Executive Office of the President did not submit data in FY 2000.

1. For the purpose of this report, the biodiesel blend (B20) figures entered in the FAST system by the Federal agencies have been converted to neat biodiesel (B100), to accurately calculate alternative fuel usage in Federal fleets. The 80 percent diesel portion of the fuel blend (80 percent diesel, 20 percent biodiesel) has been excluded from the agency's diesel consumption in Table 1, since agencies have not attributed this fuel use to covered vehicles. Also, the diesel component of biodiesel (455,042 GGE) represents less than 1 percent of the covered petroleum consumption in Federal fleets in FY 2000.

The largest consumers of alternative fuels are those with the largest number of AFVs, and include the USPS (60 percent of Federal total alternative fuel use) and to a lesser extent, DOD (19 percent). Among the available alternative fuels, compressed natural gas (CNG) is the most frequently used fuel (63 percent of the total), followed by E85, which is a blend of 85 percent ethanol and 15 percent gasoline, (25 percent), and biodiesel blend, commonly referred to as B20, (8 percent). Liquefied petroleum gas (LPG), methanol (M-85), and electric represent the remaining 4 percent of the total alternative fuel consumption.

Eleven of the agencies did not report the data necessary to calculate the percentage of alternative fuel use in AFVs. Among those reporting, the DOD's Marine Corps operated its fleet's AFVs on alternative fuels 60 percent of the time; HHS, 46 percent of the time; and VA, 55 percent of the time, thereby meeting and surpassing the FY 2005 target set forth in E.O. 13149 for alternative fuel use in AFVs a majority of the time. It appears, however, that most of the agencies will have to make a significant effort in expanding alternative fuel use to meet this requirement by FY 2005.

Fuel Economy: Fuel economy numbers apply to light-duty acquisitions (excluding AFVs) in FY 1999 and FY 2000. E.O. 13149 requires that agencies increase the fuel economy of conventional LDV acquisitions by 1 mpg by FY 2002 and 3 mpg by FY 2005, in comparison to FY 1999 levels.

The Departments of Agriculture, Interior, Justice, Transportation, and Army and the EPA already met the 1 mpg goal with their FY 2000 acquisitions. The Departments of Energy, State, Navy, Corps of Engineers, and Veterans Affairs achieved greater increases of 2 and 3 mpg as shown in Table 1. The Air Force and HHS each posted a 1 mpg decrease in fuel economy.

Additional Requirements: In addition to the information on petroleum consumption, alternative fuel use, and fuel economy (Table 1), E.O. 13149 requires agencies to submit the following information to DOE:

- Designation of a senior agency official responsible for leading the agency's AFV and fleet fuel efficiency programs and for meeting the requirements of E.O. 13149,
- Strategy outlining the agency's approach to complying with E.O. 13149, and
- FY 2000 annual AFV acquisition and fuel use report.

All agencies have a designated senior agency official, selected by the head of each of the respective agencies, and have provided the necessary information to DOE and OMB as required.

As of the draft date of this report, all of the Federal agencies have submitted a first draft strategy describing their approaches to meeting the requirements of E.O. 13149 (Table 3). DOE has approved its own strategy as well as that of DOS. EPA was given a conditional approval, based on receipt of additional documentation. DOE will submit the strategies it has approved to OMB for final review and approval. DOE continues to work with the other agencies to develop acceptable strategies that will meet the goals of E.O. 13149.

All but six of the 18 Federal agencies covered by these requirements have submitted to DOE a copy of their written compliance report. However, all agencies have provided fleet data for FY 2000 into the on-line reporting system, FAST. The written report allows agencies to include a discussion of the agency's compliance, future endeavors, and other relevant information. This report, unlike the agency's strategy for compliance, is based on the agency's actual compliance performance in that FY.

The U.S. Postal Service: USPS states that it is an "independent establishment" as defined by 5 U.S.C. section 5, and is, therefore, not covered by E.O. 13149. Nonetheless, the USPS recognized section 504 of E.O. 13149, which "encourages" exempt agencies to comply, and has submitted a strategy for achieving the 20 percent petroleum reduction and reaching other goals of E.O. 13149.

The USPS has expressed a desire to voluntarily participate in the goals of E.O. 13149 when it is operationally and economically feasible to do so. The USPS has been very active with respect to its AFV acquisition program. At present, the USPS has 200,000 vehicles in its total fleet--the largest civilian fleet

in the world. Of this total, 15 percent will be comprised of AFVs by the end of FY 2000. The delivery portion of the fleet will reach 20 percent AFVs.

Table 3. STATUS OF E.O. 13149 COMPLIANCE STRATEGIES		
Agency	Draft Compliance Strategy Submitted (Yes/No)	Current Status
Agriculture	Yes	In Review
Commerce	Yes	In Review
Defense (overall)	Yes	In Review
Energy	Yes	DOE Approved
HHS	Yes	In Review
HUD	Yes	In Review
Interior	Yes	In Review
Justice	Yes	In Review
Labor	Yes	In Review
State	Yes	DOE Approved
Transportation	Yes	In Review
Treasury	Yes	In Review
Veteran Affairs	Yes	In Review
EPA	Yes	Conditional Approval*
GSA	Yes	In Review
NASA	Yes	In Review
USPS	Yes	In Review

* Pending review of additional documentation.

Agency Compliance with EPAct

In FY 2000, EPAct required covered Federal fleets to acquire 75 percent of their covered acquisitions as AFVs and Table 4 summarizes EPAct compliance among the fleets. Data is presented for the number of covered acquisitions by each agency, as well as the number of AFVs and the number of AFVs with credits, for dedicated light, medium, and heavy duty AFVs and biodiesel fuel use. An agency's compliance with EPAct is based on the value that includes credits. The data also includes agency AFV acquisitions as a percentage of the total number of covered LDVs acquired.

Seven of the 18 agencies have complied with the EPAct requirement for making 75 percent of their covered LDV acquisitions AFVs: GSA, DOE, EPA, EOP, USPS, and DOS. HUD chose to acquire one AFV although the agency took fleet size exemptions for all its acquisitions and thus had no requirement to obtain AFVs under the EPAct exemption rules.

Overall DOD acquisitions of AFVs account for only 35 percent of its covered acquisitions in FY 2000, yet the USMC (103 percent) and the Corps of Engineers (610 percent) exceeded their EPAct requirements. It is possible for an agency to achieve greater than 100 percent acquisition of AFVs by placing these vehicles in geographically exempt areas, or by earning additional EPAct credits through acquisition of dedicated AFVs and/or biodiesel fuel usage. Table A-2 in the Appendix lists the EPAct compliance status for each of the DOD agencies.

Note that a great deal of variation may occur among agencies with respect to use of exemptions. For

Table 4. EPAct COMPLIANCE, FY 2000^a

Agency	Covered Acquisitions ¹ (#)	AFV Acquisitions (#)		AFVs as % of Covered Acquisitions (including credits)	Met EPAct Goal ³	Total AFV Inventory # (excluding credits)
		Number of AFVs	With Credits ²			
Agriculture	798	312	331	41	No	982
Commerce	130	22	22	17	No	100
Defense (Total) ⁴	11,744	3,787	4,117	35	No	13,105
Energy ⁵	633	556	605	96	Yes	1,789
HHS	191	116	125	66	No	489
HUD	0	1	1	N/A	Yes	34
Interior	780	159	265	34	No	728
Justice	77 ⁶	32	32	42	No	61
Labor	667	200	200	30	No	655
State	50	32	42	84	Yes	49
Transportation	1,020	362	374	37	No	1,831
Treasury ⁷	244	28	28	11	No	92
Veterans Affairs	1,237	256	266	22	No	706
EPA	139	112	121	87	Yes	226
GSA ⁸	183	179	181	99	Yes	588
NASA	41	22	25	61 ⁹	No	139
USPS	2,838	1,746	2,452	86	Yes	33,686
Exec. Office of President ¹⁰	27	27	27	100	Yes	54
TOTAL	20,799	7,949	9,215	44	No	55,260

^a Source: FAST database and input from agency sources.

1. Excludes exempt vehicles. EPAct allows exemptions based on geographic location; size of fleet; non-MSA operation; and use as law enforcement, emergency, and national defense vehicles.
2. Includes credits for zero emission vehicles; dedicated light-, medium-, and heavy-duty AFVs; and biodiesel usage. The E.O. allocates extra credits for dedicated vehicles.
3. In FY 2000, EPAct required that AFVs represent 75 percent of all covered LDV acquisitions.
4. See Appendix A for data by military service.
5. Subsequent to DOE submitting its report to Congress, a report-generation anomaly was identified. Despite minor differences in the covered acquisition and AFV acquisition figures, the EPAct compliance percent for DOE has not changed and remains at 96 percent.
6. The data differs from that in the FAST set of data and reflects improved data submitted by Justice after FAST closed for input.
7. The data originally entered in FAST did not include the vehicles the Department of Treasury had leased from GSA. The correct figures shown in this table were provided by the Department of Treasury after the FAST system had closed.
8. The data that was originally entered in FAST did not include all of the AFVs acquired in FY 2000. GSA provided the new information in this table, after the FAST system had closed.
9. NASA estimates that it had underreported approximately 2,000 light-duty vehicles in FY 2000. It is, therefore, very likely that the actual AFV acquisition percentage is lower than the 61 percent reported in FAST.
10. The data differs from that in the FAST dataset and reflects improved data submitted by EOP after FAST closed for input.

example, the USMC and the Corps of Engineers used their authority to exempt the majority of their new

vehicle acquisitions based on non-MSA/CMSA operation and geography. However, the Army chose to exempt only a small number of vehicles acquired in FY 2000. DOE will work with agencies to minimize these variations and thus increase the accuracy of agencies' reports.

It should also be noted that HHS came close to achieving the 75 percent requirement. AFV acquisitions of HHS represent 66 percent of the agency's total covered acquisitions.

Overall, Federal fleets acquired 7,977 AFVs in FY 2000, including 7,949 AFVs acquired by executive agencies and 28 AFVs acquired by independent agencies, as summarized in Table 5. Several agencies acquired large numbers of AFVs (at least 500) in FY 2000: DOD (3,787), USPS (1,746), and DOE (556). The USPS has the largest AFV fleet with 33,686 vehicles, accounting for about 61 percent of the 55,260 AFVs in covered agencies' fleets. The DOD fleets combined operate more than 13,105 AFVs, or about 24 percent of all Federal AFVs.

While the USPS continues to lead the Federal fleets in terms of AFVs in operation, the agency has experienced problems with its recent flexible fuel vehicle acquisitions that operate on E85 fuel. Difficulties with component hardware and a lack of regional E85 refueling infrastructure have limited overall fleet consumption of this fuel.

Several independent agencies that are not covered by EPAAct have chosen to acquire and operate AFVs, as shown in Table 5. During FY 2000, 18 out of the 19 vehicles acquired by the Social Security Administration (SSA) were alternative fuel vehicles. AFVs now represent more than half of the SSA's total inventory of vehicles. Likewise, nearly half of the Government Printing Office's vehicles are AFVs.

Agency	FY 2000 AFV Acquisitions	Total Acquisitions	AFV Inventory	Total LDV Inventory
Federal Election Commission	0	0	2	4
Government Printing Office	0	0	18	39
Office of Personnel Management	5	13	11	45
Smithsonian	5	20	6	181
Social Security Administration	18	19	24	45
Total	28	52	61	314

SUMMARY AND CONCLUSIONS

In FY 2000, Federal agencies did not make significant progress toward meeting the FY 2005 petroleum consumption reduction requirements of E.O. 13149, but this was largely because E.O. 13149 was signed more than halfway through FY 2000. However, agencies will have difficulty reducing petroleum consumption by 20 percent and increasing alternative fuel use in AFVs by FY 2005 if they do not put appropriate internal policies and procedures into effect well in advance.

Overall, Federal agencies reported an increase of 2 percent in petroleum (i.e., gasoline and diesel) consumption by their vehicle fleets in FY 2000 compared to FY 1999 consumption levels. Many agencies are not accustomed to tracking this information, and, therefore, there have been inaccuracies in the data reported. Future adjustments of these numbers may be necessary when more accurate data tracking procedures are established. It should be noted that the performance of individual agencies will be significantly different from the final, overall average for Federal agency vehicle fleets due to variations in fleet size and degree of performance. For example, a large fleet that is not fully committed to the program will negate the superior achievement of a very small fleet.

Although the data shows that there has been a slight increase in petroleum consumption, the data also

indicates rapidly increasing use of alternative fuels in AFVs.

With respect to EAct fleet requirements for FY 2000, DOE, GSA, EPA, EOP, USPS, DOS, and HUD were successful in meeting AFV acquisition requirements. As discussed previously and shown in Table 4, HUD met EAct requirements though it has a very small affected fleet. All other covered agencies, including Agriculture, Commerce, HHS, Interior, Justice, Labor, Transportation, Treasury, VA, NASA, and DOD, did not meet the FY 2000 EAct fleet acquisition requirements.

Table 6 summarizes the status of Federal Government agencies in complying with E.O. 13149 and EAct requirements concerning fleet acquisition, fuel use, and certain other requirements.

Table 6. SUMMARY OF AGENCIES' PROGRESS TOWARDS COMPLIANCE					
Agency ¹	On track for achieving:				
	20% Petroleum Reduction (E.O. 13149) ²	51% Alternative Fuel Use (E.O. 13149) ³	MPG Increases (E.O. 13149)	FY 2000 75% AFV Acquisition (EAct)	Compliance Strategy Submitted (E.O. 13149)
Agriculture	No	No	Yes	No	Yes
Commerce	No	No	No	No	Yes
Defense	No	No	No	No	Yes
Energy	No	Yes	Yes	Yes	Yes
HHS	No	Yes	No	No	Yes
HUD	No	No	No	Yes	Yes
Interior	No	No	Yes	No	Yes
Justice	Yes	Yes	Yes	No	Yes
Labor	Yes	No	No	No	Yes
State	Yes	No	Yes	Yes	Yes
Transportation	No	No	Yes	No	Yes
Treasury	No	No	No	No	Yes
VA	No	Yes	Yes	No	Yes
EPA	No	No	Yes	Yes	Yes
GSA	No	No	No	Yes	Yes
NASA	Yes	No	No	No	Yes
USPS	No	Yes	No	Yes	Yes

Shaded areas indicate data was not submitted.

1. The Executive Office of the President did not report sufficient data to make a determination.
2. "Yes" indicates petroleum consumption reduction in FY 2000 of at least 3.3 percent below FY 1999 level. This represents the 20 percent requirement evenly divided over the six years that agencies have to reach the requirement by the end of FY 2005.
3. "Yes" indicates alternative fuel use of at least 8.5 percent. This represents the 51percent alternative fuel use requirement evenly divided over the six years agencies have to achieve this requirement by the end of FY 2005.

The Federal Government acquired 7,977 AFVs in FY 2000 (7,949 AFVs in executive agency fleets and 28 AFVs in independent agency fleets), bringing its total inventory of AFVs to 55,321. More than 60 percent of these AFVs (33,686) are operated by USPS, and 24 percent (13,105) by DOD.

RECOMMENDATIONS

Although each agency has a unique make-up and mission, there are some areas of activity that can apply to all agencies. The following recommendations are not intended to resolve all of the issues facing the Federal agencies, but to help Federal agencies identify what needs to be done to comply with applicable requirements and goals. The participation and leadership of each agency are needed to meet these requirements and goals.

Office of Management and Budget

- Raise awareness among agencies' senior officials about requirements and agency performance.

Department of Energy

- Develop and implement fleet manager and vehicle operator training programs.
- Increase coordination among GSA, DOE, and other agencies to identify and resolve fuel use tracking problems.
- Assist agencies in coordinating fleet use of AFVs with expansion of infrastructure.

All Agencies

- Expand fleet managers' involvement in data reporting as well as AFV acquisition planning.
- Participate in the GSA surcharge program to spread incremental cost of AFV acquisitions across all agency fleets.

If these recommendations are implemented, the potential for this program's success will be greatly enhanced. DOE will continue to provide guidance and assistance to agencies and fleet managers in meeting applicable requirements and goals.

**APPENDIX A
DOD AGENCY COMPLIANCE WITH
EXECUTIVE ORDER 13149 and EPACT**

Table A-1. E.O. 13149 COMPLIANCE FOR DOD AGENCIES, FY 2000^a

DOD Agency	Petroleum Consumption			Alternative Fuel Use		Fuel Economy		
	FY 1999 Covered Petroleum Consumption Baseline ¹ (GGE)	FY 2000 Covered Petroleum Consumption ¹ (GGE)	Consumption Reduction (%) <i>Increases shown in parentheses</i>	FY 2000 Alternative Fuel Consumption ² (GGE)	Alt Fuel Use in AFVs (%)	FY 1999 Fuel Economy Baseline ³ (mpg)	FY 2000 Fuel Economy ³ (mpg)	Increased Fuel Economy (mpg) <i>Decreases shown in parentheses</i>
Navy	14,435,855	13,656,791	5.4	106,555 ⁴		18 ⁵	21	3
Marine Corps	10,527,804	9,687,458 ⁵	8.0	96,129	59.75 ⁵	17		
Army	31,728,666	33,561,019	(5.8)	13,034	0.1	26	27	1
Air Force	11,880,656	13,864,196	(16.7)	39,054	1.3	17	16	(1)
DLA	1,648,285	1,151,292	30.2	3,178	4.74	19	19	0
Corps Engineers	408,194 ⁶	408,194		59	-- ⁷	18	20	2
DCMA								
DIA								
Other Defense ⁸	766,899 ⁶	766,899		1,045				
TOTAL	71,474,723	73,174,213	(2.4)	259,054				

^a Source: FAST database. Light shaded areas indicate data was not submitted; dark shaded areas indicate data was insufficient to calculate meaningful totals.

1. In E.O. 13149, “covered vehicles” are all the vehicles that are not law enforcement, emergency, or military tactical. Note that FY 1999 was the first time that much of the data were collected, and appropriate mechanisms were not always in place at that time for obtaining accurate data. Therefore, some uncertainty is inherent in the FY 1999 numbers, and they may be modified at a later date.
2. Combination of all types of alternative fuels (natural gas, E-85, electricity, biodiesel, M-85, and LPG).
3. LDV acquisitions excluding AFVs.
4. Reduced from number of GGE recorded in FAST to eliminate diesel portion of 377 GGE biodiesel used by the Navy (302 GGE diesel plus 75 GGE biodiesel).
5. Reflects improved data submitted by agency after FAST closed for input. This data, therefore, differs from the FAST set of data.
6. FY 1999 baseline was not submitted by agency/service. For the purpose of this report, covered petroleum consumption was entered as an estimate.
7. The data received for this category was incorrect and was, therefore, not included in this table.
8. “Other Defense” includes data listed in FAST under “Defense Agencies”.

Table A-2. EPACT COMPLIANCE FOR DOD AGENCIES, FY 2000^a						
DOD Agency	Covered Acquisitions¹ (#)	AFV Acquisitions (#)		AFVs as % of Covered Acquisitions (Including Credits)	Met Requirement³	Total AFV Inventory (#)
		Number of AFVs	With Credits²			
Navy	1,568	507	593	38	No	1,246
Marine Corps	791	634	818	103	Yes	1,362
Army	6,904	1,781	1,820	26	No	5,143
Air Force	1,405	347	347	25	No	3,899
DLA	492	254	264	54	No	548
Corps Engineers	20	111	122	610	Yes	594
DCMA	266	152	152	57	No	201
DIA						
Other Defense ⁴	298	1	1	0	No	58
TOTAL	11,744	3,787	4,117	35	No	13,105

^a Source: FAST database. Shaded areas indicate data was not submitted.

1. Excludes exempt vehicles; EPAct allows exclusions based on geographic location, size of fleet, non-MSA operation, and use in law enforcement.
2. Includes credits for zero emission vehicles, dedicated light-, medium-, and heavy-duty AFVs, and biodiesel usage. E.O.13149 allocates extra credits for dedicated vehicles.
3. In FY 2000, EPAct requires that AFVs represent 75 percent of all covered LDV acquisitions.
4. "Other Defense" includes data in FAST listed under "Defense Agencies."

