

USDA ARS CNRC-Based SOPs

Hybrid Vehicle Use

REFERENCES:

Executive Order 13423 requires federal agencies to explore recycling options.
REE Manual 230, “Safety, Health & Environmental Management Program”
ISO Standard 14001, “Environmental Management Systems”.

BUSINESS UNIT: Children’s Nutrition Research Unit (CNRC)

This SOP has been written for the CNRC Personnel to maintain an active part in using alternative non-bio fuels on a regular basis by use of a hybrid vehicle (USDA owned).

ASPECT: Use of Hybrid Vehicle

IMPACT(S):

1. Air Pollution
2. Depletion of Petroleum Resources

FOR THE IMPACTS, ARE THERE:

1. Emergency preparedness issues? Ensure vehicle is regularly used to maintain battery charge for vehicle starting (ensure vehicle is driven monthly)
2. Compliance issues? Executive Order 13423 requires federal agencies to explore alternative fuel options.

HOW WOULD YOU CHARACTERIZE THE PRIORITY OF EACH IMPACT?

1. Air Pollution: High priority
2. Depletion of Petroleum Resources: High priority

PURPOSE OF THE SOP FOR HYBRID VEHICLE USE:

1. To identify the procedure for all Personnel to participate in the use of the Hybrid USDA vehicle.

SCOPE STATEMENT ON THE E85 ETHANOL USE:

1. This procedure applies to all personnel involved in the use of driving responsibilities.

INSTRUCTIONS:

1. The CNRC has one (1) hybrid motor vehicle and it is the USDA (owned) 2009 Ford Escape vehicle. The CNRC also has a nonhybrid vehicle, a Toyota Sienna.
2. All USDA employees should use this vehicle first if needing to drive a CNRC vehicle. BCM authorized driver personnel will first drive the Toyota Sienna. If the Toyota is unavailable or if the Ford Escape has not been used in 2-3 weeks, then the driver will be authorized to use the CNRC Hybrid Ford Escape vehicle. When someone is driving this vehicle they should be aware of how a hybrid vehicle functions:
 - Upon starting the vehicle the driver will notice a green arrow illuminated on the dash – this is important. The vehicle has a huge set of batteries in the rear of the vehicle where a spare tire would typically be located. Batteries are charged by the driver braking the vehicle when coming to a stop. Once the batteries are charged to a certain point and the



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vehicle is at a stop or coming to stop, the driver may notice the vehicle's engine stops running. (the driver will continue to see a green arrow illuminated on the dash). The car will have switched to electric battery and everything will still be operational. The driver will be operating via the battery up to 40 mph in which the engine will start again. The operation is seamless but the driver will notice the engine turn on/off only at certain conditions (at a stop or coasting at under 40 mph). During this seamless operation the green arrow will be illuminated on the dash.

MONITORING:

1. Keep track of the use the hybrid vehicle via vehicle logs
2. Monitor vehicle usage by the vehicle logs to ensure the Ford Escape is regularly started/driven – to ensure primary battery charge.

CORRECTIVE ACTION:

1. n/a

VERIFICATION AND RECORD KEEPING:

1. The EMS Coordinator will maintain the documentation of the vehicle's use.

DATE EMPLEMENTED: June 23, 2016

BY: Perry Rainosek

DATE REVIEWED: June 23, 2016

BY: Dr. Dennis M. Bier

DATE REVISED: _____ BY: _____

