

# FY11 IT Safety Self Assessment


GEM car training and safety

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Approved:

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# **Review training requirements of GEM car use and how it is implemented in division.**

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## **Executive Summary:**

IT was the first division to bring the GEM/electric cars onsite to the Lab. These cars are built like golf carts and are lighter and drive differently than conventional vehicles. This assessment evaluates gaps in training for GEM car drivers that happened because IT brought the cars onsite prior to the implementation of formal training by the Facilities division which came about when the Facilities division expanded the GEM fleet across the Lab. The IT Division has since expanded the training internally but enhancements need to be made to the training and it should be put online and incorporated to the JHA process so that it can be formally tracked, audited, and updated as necessary. Fleet Services, part of the Facilities division, is the owner of this process.

## **Introduction:**

The IT division was the first to introduce the GEM cars to the Lab community. There are now 67 GEM cars on the Berkeley site; 65 owned by the Lab and 2 which belong to DOE. Currently the IT Division has 6 GEM cars; 1 for Business Systems and 5 for the Mac/PC support group.

Currently when a division purchases a GEM car, they do so through Fleet Services. Before Fleet Services releases the car to the purchasing Division, a Facilities representative provides training. This training entails a short (15 minute) power point presentation and a vehicle "hands on" familiarity session. After the initial training the individual GEM custodians are responsible for training anyone who will be operating their GEM. Outside of this PowerPoint presentation and hands on familiarity session, there is no known formal training program for use of these vehicles. This assessment will review the usage of the vehicles and whether there needs to be further specific training, on the job (OJT) or some other formalized process for providing ongoing training separate from that provided at the time of purchase.

## **Assessment Scope:**

IT interviewed the current custodians of all 6 GEM cars within the division. Frequent users were also interviewed. Key staff members in Facilities involved with Fleet services and the GEM car training were also interviewed in order to gain an understanding of the hand off process from the point of view of the Fleet Services.

This self-assessment focuses on current training and usage of GEM vehicles. Are they sufficiently different from regular motor vehicles to require formal training? We will also review how an individual is authorized to drive these vehicles. Though this is a concern specifically for the IT division which received most of its GEMs before there was formal training, we believe this assessment has benefit for the Lab wide community.

## **Current Requirements:**

The IT division was one of the first owners of GEM cars on the hill; they were purchased by the division directly from the manufacturer. When Facilities started to purchase GEMS on behalf of divisions they implemented the training that is currently in place. Because IT purchased GEMS before a formal process was in place, IT GEM custodians did not receive formal training. Although

there is now a practice that Fleet Services must provide training before any onsite custodian receives keys to a GEM, this is not formally documented.

#### Assessment Results:

IT staff in building 69 were trained in using the GEM but those in building 46 were not. IT staff in building 46 were the staff members who had received the GEMs before Facilities had formalized the training.

IT staff interviewed had two major concerns regarding GEMs, 1) power steering/brakes and 2) blind spots.

GEM cars are on a quarterly maintenance plan with custodians responsible for contacting Facilities should any maintenance issues arise.

One IT staff member mentioned power cords "going missing". \*\*

Due to recent retirements in Facilities there has been a change in the staff personnel who are responsible for maintaining the GEM cars. This has caused some confusion regarding maintenance which could be problematic. Follow-up with Facilities will be necessary to ensure upkeep of the vehicles.

Custodians are responsible for making sure those who use the GEMs are properly trained. In the case of those who had been through the training this was not an issue but since a portion of IT received the vehicles before the training was in place, there were a few staff members who had never been trained. Many staff were very pro-active and had learned of the training and took it upon themselves to take the training to become more familiar with the vehicles.

Potential hazard - Beeping for reverse only heard in vehicle not outside of vehicle. Not noted in current training.

Potential hazard - IT staff who did drive the GEMS noted that there can be significant blind spots when driving the vehicles.

The GEM car vehicle bodies are plastic. Some staff described them as "a plastic box".

The user manual does have a roll over warning:

***Roll over warning:***

*Do not attempt sharp turns or abrupt maneuvers or other unsafe driving actions that can cause loss of vehicle control and possible roll over. Failure to operate this vehicle safely may result in an accident, roll over, and serious injury or death. Because of its construction, your vehicle offers less protection than other types of motor vehicles in the event of an accident.*

This warning is not clearly outlined in the PowerPoint training though it may be in the OJT. This is something to be considered for online JHA training.

#### Findings

No significant findings.

### Observations:

There currently is not a formal way to verify whether or not someone has a valid California driver license and whether that individual is allowed to drive in the state of California. This issue is outside the scope of this review but is certainly a concern to the Lab at large and should be reviewed at a higher level.

There was a great deal of confusion regarding the charging of the batteries by various staff members interviewed. Apparently the process for charging varies depending on the age/model of the vehicles. This should be reviewed annually with users and incorporated into updated training.

For IT to manage their own concerns regarding the GEM cars and the appropriate training, IT should create a workgroup in the JHA for them and require they review the PowerPoint training every two years.

There seem to be a number of concerns around GEM cars but no inherent danger. It would help to have a more formal GEM program online as well as single point of contact in Facilities to handle questions.

### Recommended Corrective Actions:

To be consistent across the Lab, the training requirement for GEM cars should be put online and be a part of the JHA for all employees who drive GEM cars. The current practice of requiring custodians to be required to take the training before receiving the keys is good but adding the requirement of the training to be a part of the JHA for all employees who drive a GEM is better. There will need to be an annual review of the GEM manual for any updates that may need to be incorporated into the training. The manual is updated annually.

Create a GEM car user group for updates of changes.

### Noteworthy Practice:

MPSG staff obtained chock blocks for all their GEMS as an extra safety precaution when parking to prevent rolling.

### Conclusion

The Facilities Division had great forethought to put training for the GEM cars into place when they did. It was unfortunate that IT didn't get the early adopters of the GEM cars through this training sooner. By reviewing the training and suggesting adding it to the JHA, updating it, and making it an online course, would improve the process for all at the lab.

### Lines of Inquiry

1. Did you receive training prior to using a GEM car?
2. Are there any issues with the GEM car you wish you knew before that you know now?

Self-Assessment Methodology:

Person(s) conducting self-assessment: Division Safety Coordinator

Personnel interviews of 6 GEM custodians in division plus regular users of GEMs.

Nothing noted in the Lessons Learned Database.

\*\*There seem to be some issues in CATS regarding GEM power cords.