<u>Re-Chartering:</u>
The Emission Test Laboratory Upgrade Workgroup

April 18, 2001

Purpose of Re-Chartering

- Review Progress Made Since July, 1998
- Advise on “Post-FY01”Lab Upgrade Plan

The Original Workgroup

- **Chartered in July, 1997**
- **Industry, State & Academic Representation**
- **Series of Meeting to Advise of Tech Merits of Plan**
- **Final Report Issued on July 15, 1998**

Lab Workgroup Recommendations:
Core Services

- Confirm Mobile Source Compliance
- Act as National Reference for Mobile Source Emissions Testing (Standards, Procedures, etc.)
- Provide Scientifically Robust Evaluation and Research Data for Regulatory Support

Lab Workgroup Recommendations:
Functions Requiring Upgrading

- Very Low Emission Vehicle Compliance Testing Capability
- Multi-fuel Testing Capability
- Expanded & Enhanced HDE Testing Capability
- Expanded and Upgraded Fuels, Chemistry and Standards Labs

Lab Workgroup Recommendations:

Upgrading Employee Skills

- Personnel Planning
- Staff Development
- Hiring and Placement

Progress Made at NVFEL: Very Low Emission Vehicle Compliance Testing

- Completed compliance sites for pre-Tier 2 vehicles
- Installing first low emission analytical system for Tier 2
- Preparing to contract out first low emission sampling system for Tier 2

Upgrade Vehicle Compliance Testing

Upgrade Vehicle Compliance Testing
Tier 2 Test Site

Upgrade Vehicle Compliance Testing
Tier 2 Test Site

Progress Made at NVFEL:

Multi-fuel Testing Capability

- New fuel farm - expanded to 15 compartments
- Completed preliminary impinger & speciation methodologies
- Developing electrochemical measurement methods to measure toxins

Progress Made at NVFEL:
Fuels, Chemistry & Standards Labs

- Fuels - new Sulfur measurement capability and replaced older AA and GC-Mass Selective Detector

- Chemistry - new LC-MS installed

- Standards Labs - working with NIST for new low level NOx standards & flow measurement standards for Tier 2

Support Lab Upgrades

Progress Made at NVFEL:

HDE Testing Capability

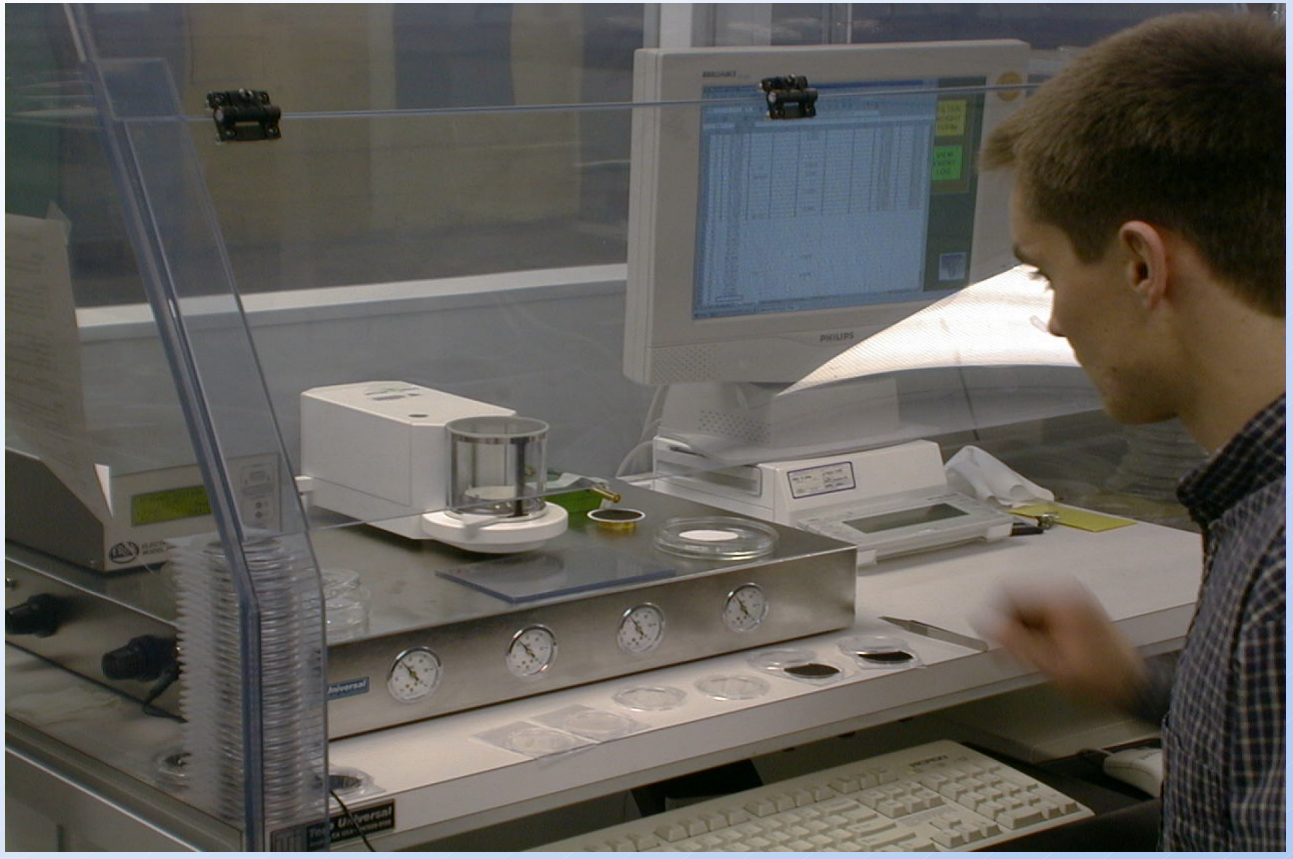
- Completed state-of-the art HDE development / compliance Test Site
- Completed low PM measurement “Clean Room”
- Looking at Expansion Options

Progress Made at NVFEL:

Technical Staff Development

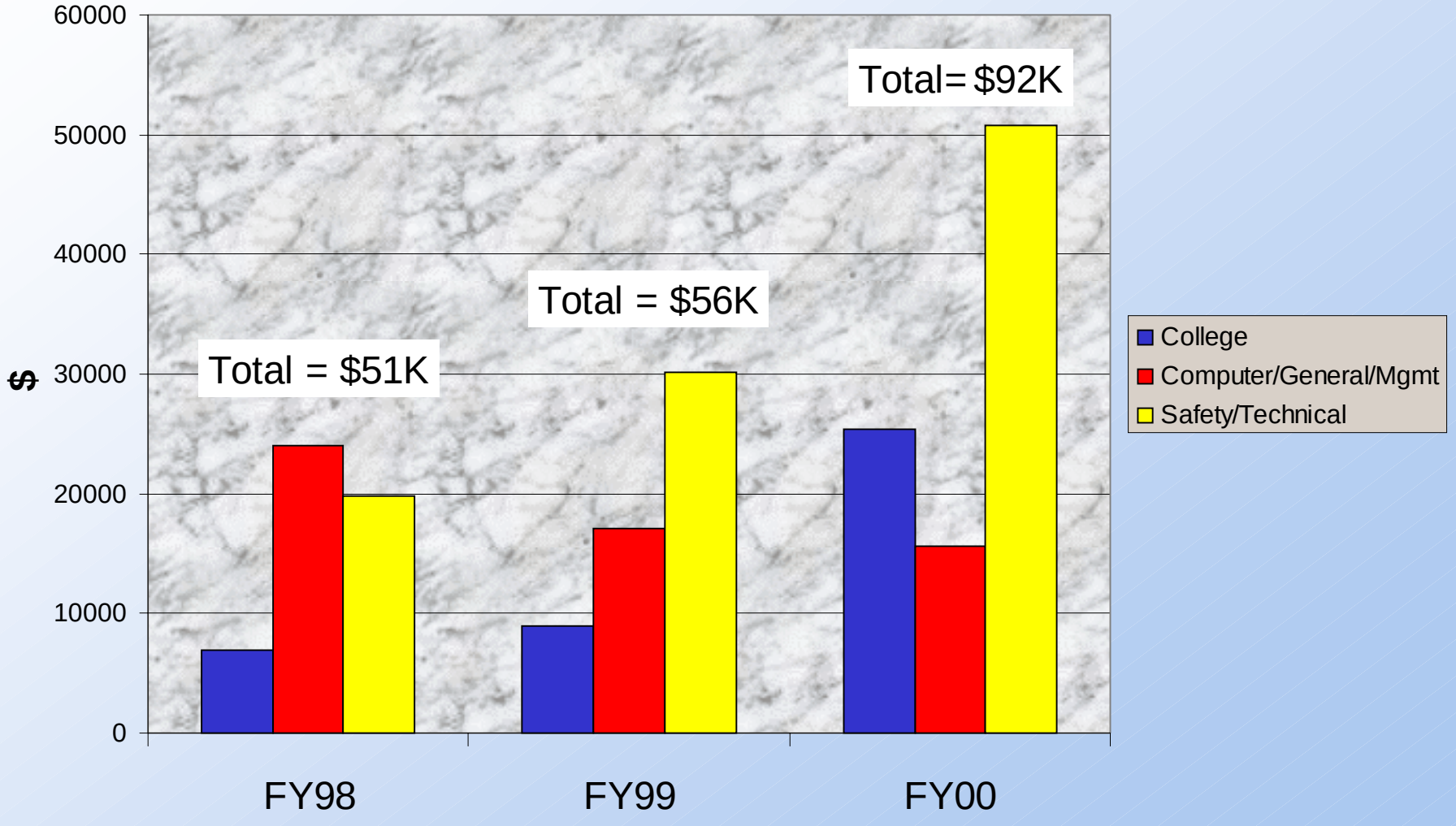
- Technologist Career Track
- Increase in total $ spent on technical training
- Increase in advanced systems training

Upgrading Staff Skills

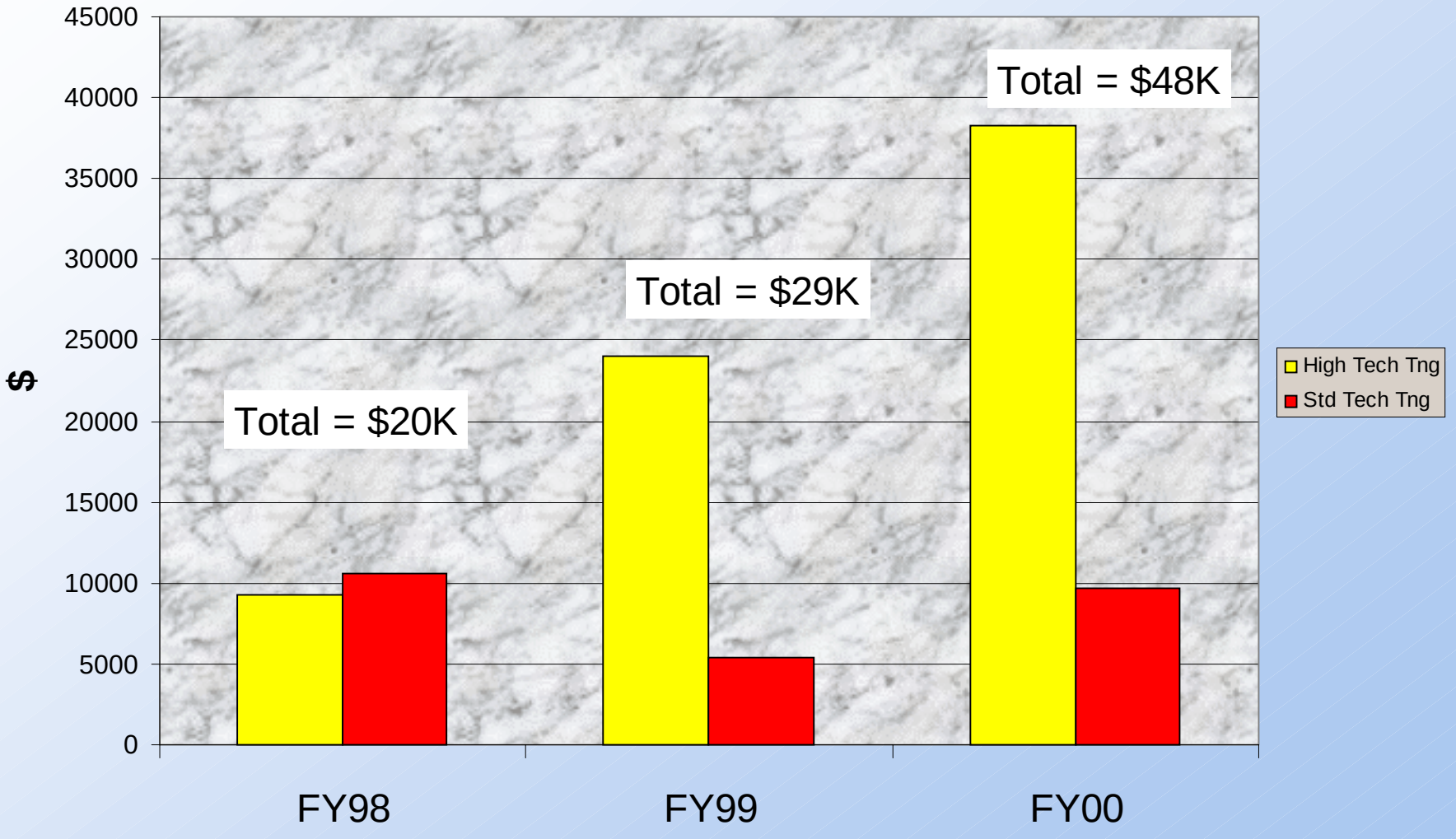


Upgrading Staff Skills

Types of Training



Breakdown of Technical Training



Summary

- Substantial Progress in Critical Stakeholder Services.
- More is to be Done.

Request to Re-Charter

- Review progress made in detail
- Review the upgrade plan beyond FY01
- Produce report giving insights & recommendations to guide the next two years of progress

Workgroup Membership

co-chairs: R. Jorgensen & M. Sabourin

- **Vehicle Industry**
  - G. Ambrozaitis Mercedes Benz
  - Rick Middleton Daimler/Chrysler
  - Kazuhiro Murata Nissan
  - Richard Pearl Toyota
  - Thomas Rhoads Ford
- **Engine Industry**
  - William Baker Detroit Diesel
  - Richard Bishop John Deere
  - Robert Jorgensen Cummins
- **Off Road Industry**
  - Randy Brown PPEMA
  - William Frank OPEI
- **State Labs**
  - Richard Gibbs State of New York
  - Raphael Susnowitz CARB
- **Academic Labs**
  - John Johnson MI Tech. Univ.
- **U.S. Gov't. Lab**
  - Michael Sabourin EPA/NVFEL

The Schedule

- 4 “Day Long” Meetings Required
- First Meeting in May-June at NVFEL
- Work Complete by October, 2001
- Report Delivered to Subcommittee

Thank You

- to Upgrade Workgroup Members for the Hours and Days Expended Providing Invaluable Guidance to NVFEL Staff

- to Subcommittee for providing a forum to focus our tangible results consistent with stakeholders' most critical needs