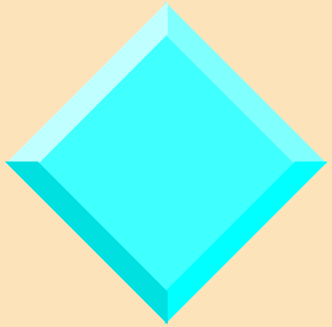


EPA's Proposal for MOBILE6

Inspection and Maintenance & Other In-Use Control Programs

Current Options

- Tailpipe HC, CO & NOx Inspection
- Anti-Tampering Inspection
- EPA Pressure / Purge Checks
- Annual or Biennial Inspection
- One or Two I / M Descriptions
- Waivers & Compliance Rates

Added Options & Features since MOBILE5a

- Mechanic Training Credits
- Retest-based Hybrid Credits
- Remote Sensing Program Credits
- Adjustable Test & Repair Discount

Proposed Program Benefit Methodology

- No changes in methodology
- No changes in exhaust identification rates
- No changes in tampering rates
- Investigate effect of repairs on start vs running emissions
- Review of evap test procedures

Impact on Benefits

- Anti-tampering benefits will be similar
- Overall exhaust I/M benefits will depend on the number of high emitters
- Evap benefits will depend on the effectiveness of the test procedures

I/M Credits

Start vs Running Emissions

Presented by Janet C. Kremer

I/M Credits

- Identification Rate: The I/M identification rate is the percent of emissions identified by a given test.
- Repair Effects: The difference between the emissions before repair and after based on a curve for each test and cutpoint combination.

I/M Credits Currently

- Based on Emission Factor Program repairs
- The percent emission reduction rate is one rate for both start and running emissions.

MOBILE6 I/M Credit Proposal

- Use MOBILE5 identification rate
- Update repair effects
- Look at the emissions reduction of start and running separately, to see the effect it would have on credits

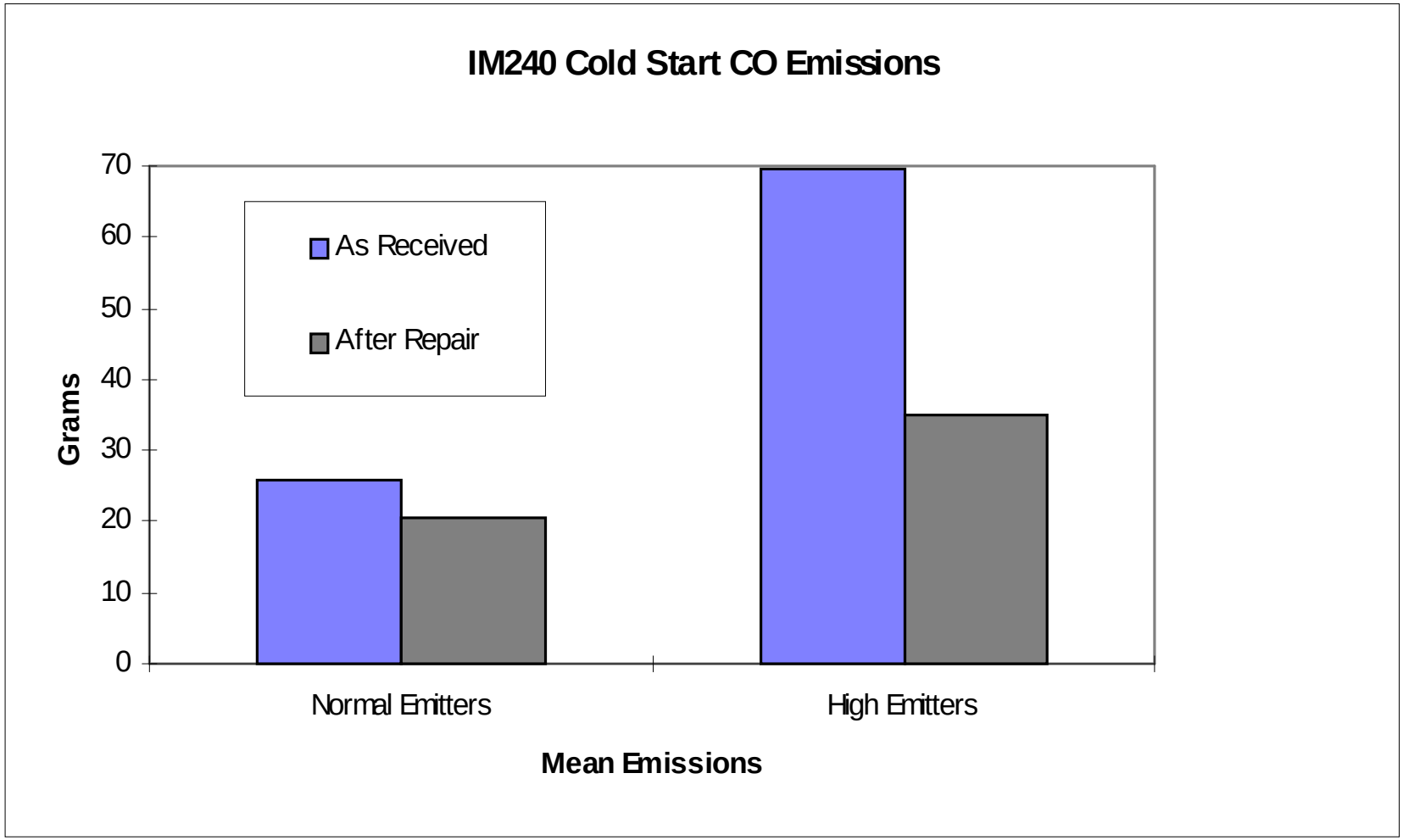
I/M DATA

- To date there is very little "real world" studies on how effective repairs are.
- EPA has a large Emissions Factor (EF) database for vehicles tested both in house and by contractor.
- Vehicles for this analysis were chosen in the same fashion as an I/M lane would choose.
- Emission Factor program is the only data which contains effects on starts.

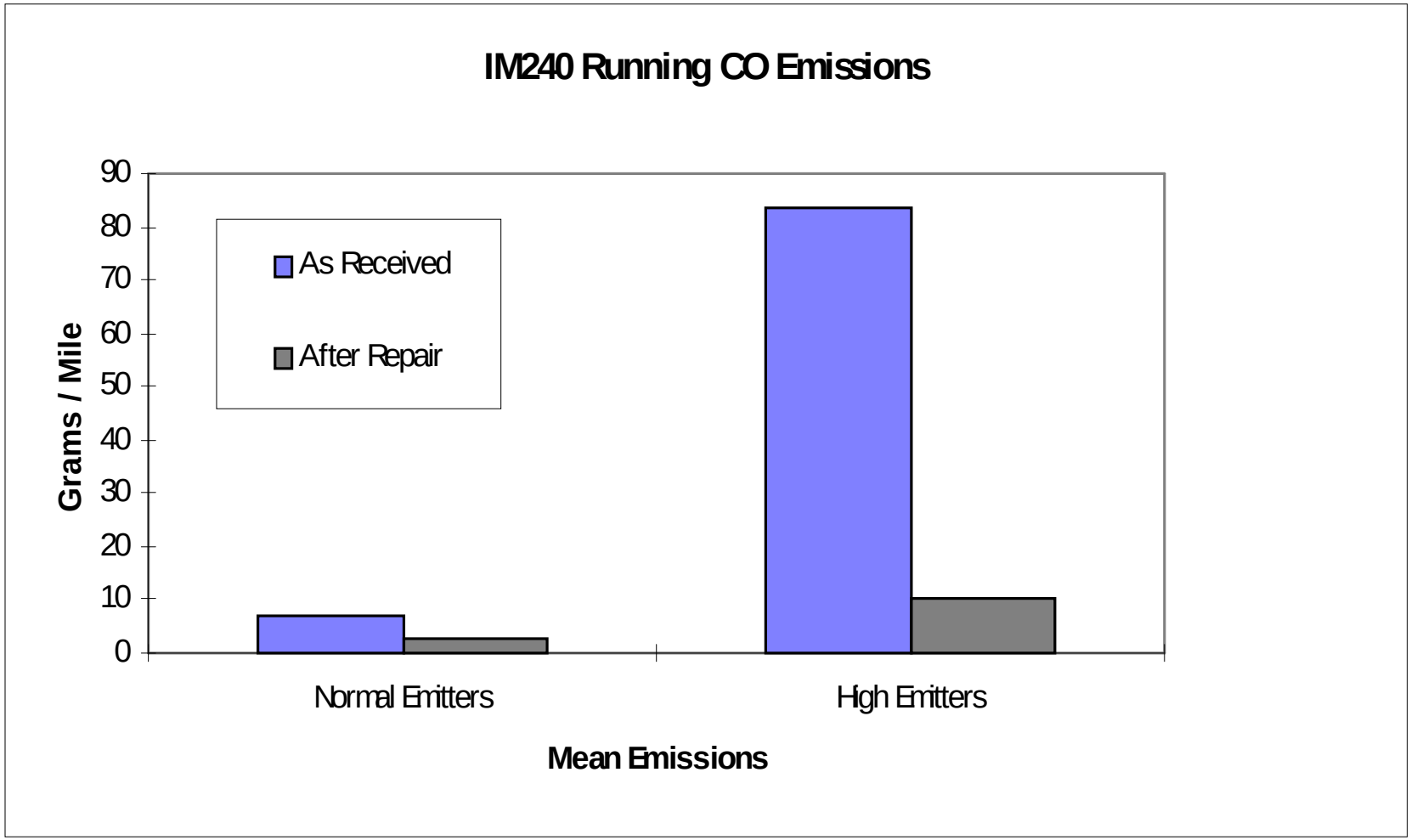
Data Used For IM240 Example

- Sample size: 22 LDV, 4 LDT1, 1 LDT2
- Model years: `81 -`95
- Tier 0

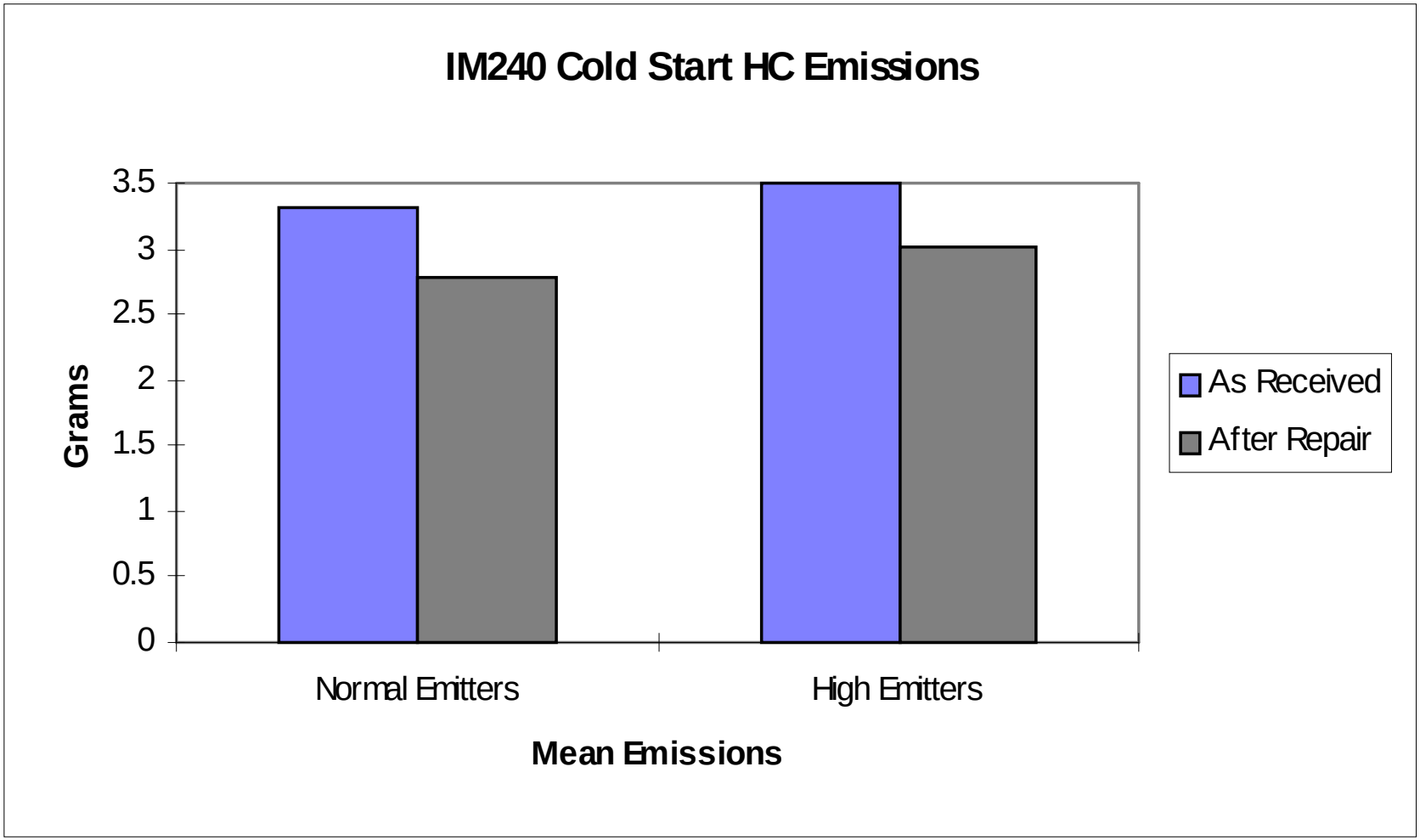
Draft IM240 Cold Start CO Emissions



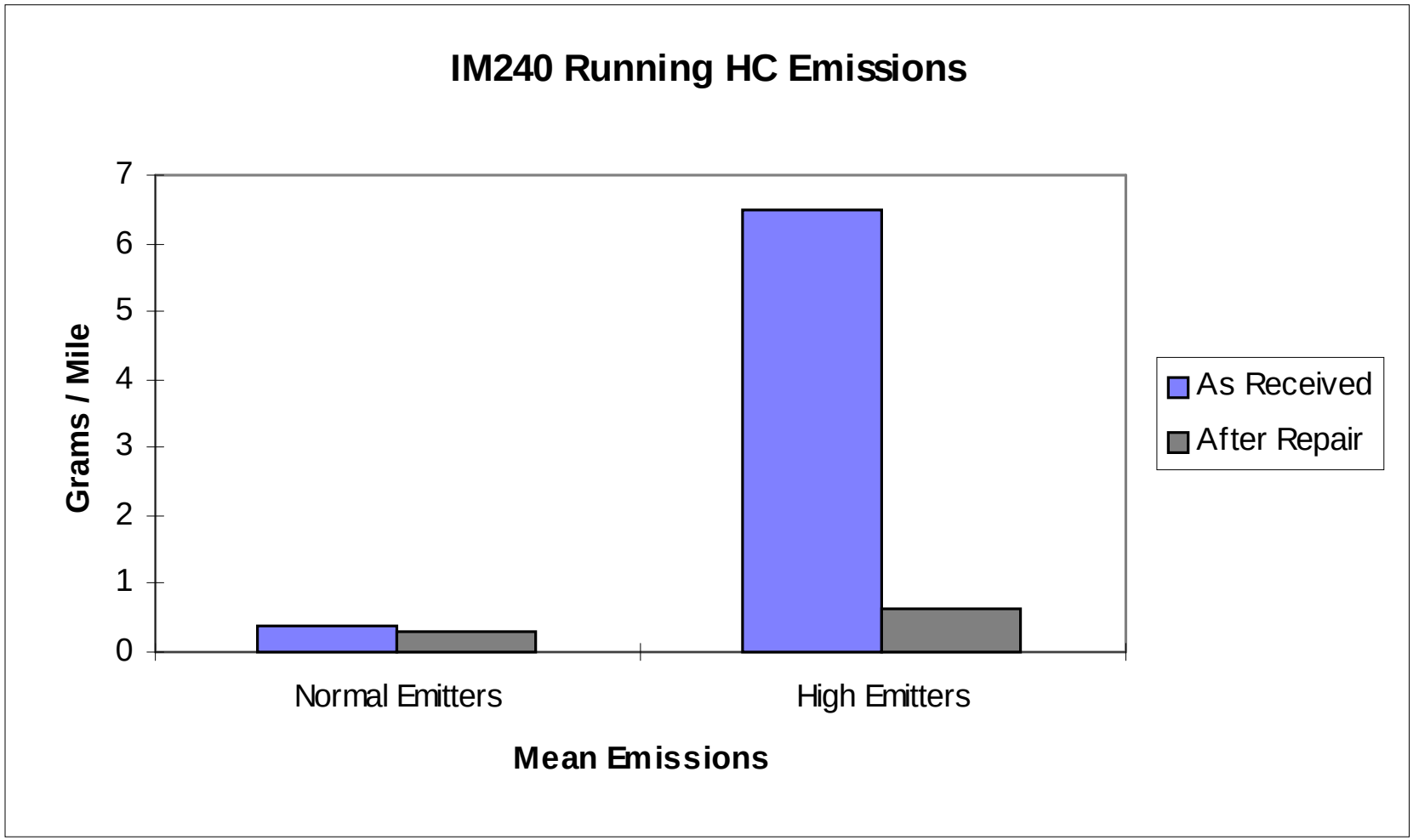
Draft IM240 Running CO Emissions



Draft IM240 Cold Start HC Emissions



Draft IM240 Running HC Emissions



Summary of IM240 Data

	Normal Emitters	High Emitters
As Received Cold Start CO Emissions(grams)	25.9	69.6
After Repair Cold Start CO Emissions(grams)	20.5	34.9
As Received Running CO Emissions(grams/mile)	6.77	83.6
After Repair Running CO Emissions(grams/mile)	2.77	10.09
Sample Size	9	18
As Received Cold Start HC Emissions(grams)	3.32	3.5
After Repair Cold Start HC Emissions(grams)	2.79	3.01
As Received Running HC Emissions(grams/mile)	0.39	6.6
After Repair Running HC Emissions(grams/mile)	0.29	0.64
Sample Size	8	19

Issues

- Percent change to starts for all soak times?
- What can or should be done with older model years?
- What can or should be done with future model years?

Continuing Analysis

- EPA will continue analysis
- Will look at other test types
- Will look at other cutpoint combinations
- Will look at statistical significance