

CLEAN AIR FOUNDATION'S *SWITCH OUT* PROGRAM

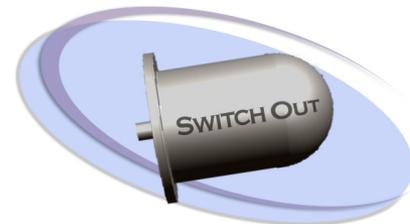
Great Lakes Pollution Prevention
Roundtable

Toronto, August 2002

Leah Hagreen
Project Manager

Presentation Overview

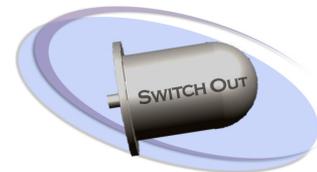
- Background on Clean Air Foundation
- Overview of mercury in Canada
- Status of Switch Out
- Issue summary
- Goals and objectives for 2002
- Requirements for success
- Important policy considerations



Clean Air Foundation

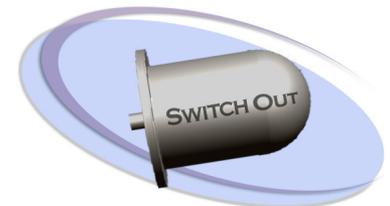
National not-for-profit organization dedicated to developing, implementing and managing public engagement programs and strategic initiatives that lead to a measurable improvement in air quality.

- Five programs in place: Mow Down Pollution, Keep Cool, Clean Start, Car Heaven and now Switch Out
- Partners include: Home Depot, Black and Decker, Future Shop, Panasonic, Ford Motor Company of Canada, Ontario Ministry of the Environment, Environment Canada, OARA, OADA etc.



Switch Out Status

- Canada's first program dedicated to recovery of mercury switches from automobiles.
- **Pilot run by Pollution Probe 2001**
 - Successes include:
 - 12 auto recyclers participating
 - 2500 switches collected
 - Infrastructure developed for collection and disposal
 - Partnership with other industries
- **Decision made late 2001 to transfer program management of *Switch Out* from Pollution Probe to the Clean Air Foundation**
 - Currently 34 auto recyclers participating

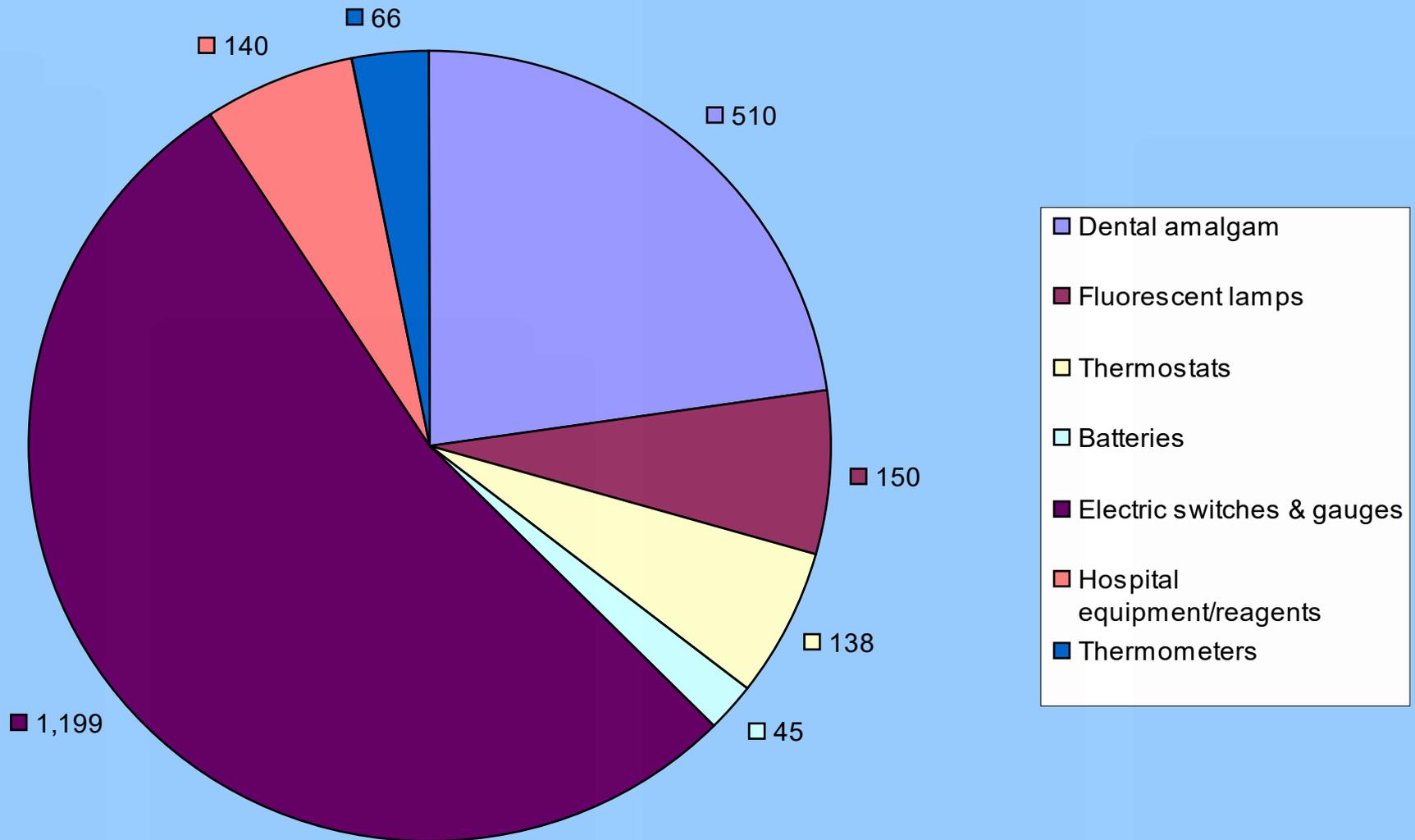


Mercury in Selected Products in Canada

Product	Reservoir (kg Hg)	Annual Flux (kg Hg/yr)	Atmospheric Emissions (kg Hg/yr)
Automobiles	13,200	730	212
Appliances	5,000	333	134
Thermostats	22,700	900	138
Fluorescent Lamps	8,100	4,030	150
<i>Totals</i>	<i>49,000</i>	<i>5,993</i>	<i>634</i>

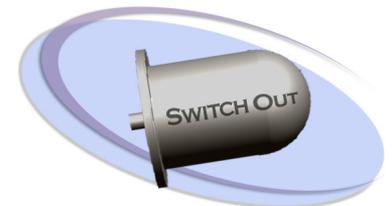
Source: Hargreen & Lourie, 2002

Mercury Released from Products in Canada (kg/yr)



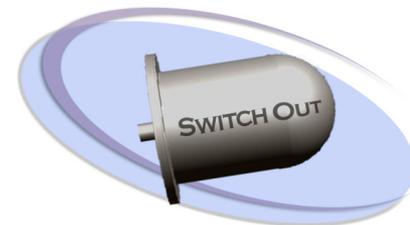
Current Knowledge

- 13+ tonnes of mercury in vehicles in Canada (0.73g Hg/car).
- Hg emitted at many stages in steel recycling process: EAF (incl. flue dust incineration) emissions = ~25% of total atmospheric emissions from automotive recycling process (MPCA, Barr, NSS)
- Stack controls on EAF's will not be sufficient to capture all or even the majority of the mercury before it is released to the environment.



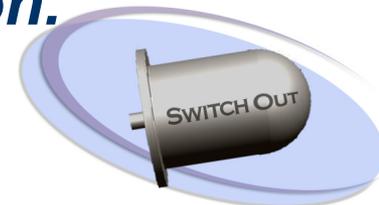
Current Knowledge II

- Government has commitments for reduction in mercury use and release (i.e. BTS, COA, NARAP) and policies to address (i.e. CWS, CEPA).
- Mercury switch removal at auto recyclers is low cost method for mercury emission reductions from steel recycling industry.
- Voluntary mercury switch collection programs capture rates of 2-20% not uncommon.



Switch Out Pilot Findings

- No current incentive for recycler participation.
- Industry fragmented, unregulated, lack of environmental standards.
- Participation to date built on one-to-one relationships (not possible on large scale).
- No level playing field for auto recyclers – voluntary participation = competitive disadvantage.
- Voluntary approach to mercury switch removal will not achieve goal of mercury-free scrap.
- ***Market driver required for switch collection.***



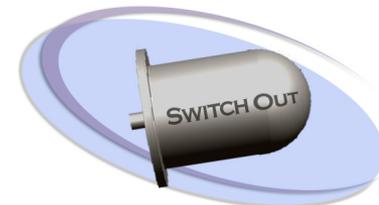
Goals & Objectives - 2002

GOALS:

1. Participation of 100 auto recyclers
2. Collection of 30,000 mercury switches by April 2003

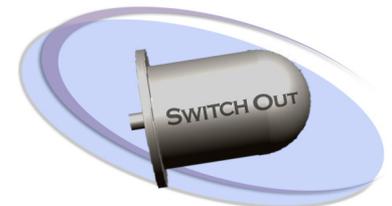
OPERATIONAL OBJECTIVES:

- Streamline collection infrastructure
- Implement incentive structure for switch collection
- Leverage interests of scrap and steel industry to support switch collection.



Requirements for Success

- Inexpensive infrastructure (i.e. Purolator)
 - Sustainable funding source
 - Requires supportive regulatory structure (UWR)
- Market driver – and sustainable funding source
 - Bounty on mercury switches
 - Requirement by scrap/steel industry
 - Price differential for scrap
 - Regulation on auto recycling industry
- Supportive regulatory structure
 - Transportation
 - Responsibility for switch recovery



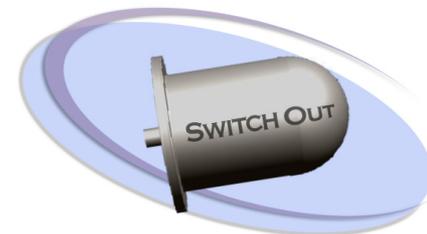
Policy Issues for Consideration

- Retirement

- Recycling mercury into products will not achieve desired reductions in mercury emissions.
- Industry supporters requesting retirement.
- *Timeline?*

- Bounty

- Useful mechanism to achieve reductions.
- *Who pays?*



Policy Issues for Consideration II

- **Extended Producer Responsibility**
 - Canadian government has authority to enact
 - Other stakeholder industries want to see manufacturer participation
 - Defining responsibility of manufacturers important.
- **Off-sets or trading**
 - Provide required market value for collected mercury
 - *Credit value for collected mercury?*
 - *Integration into standards?*
- **Continued use of mercury**
 - Requirements for expensive, collection programs.

