

Up-Grading of Halon 1301 Systems

GTZ Seminar Beirut June 6th & 7th, 2000

Republic of Lebanon
Office of the Minister of State for Administrative Reform
Center for Public Sector Projects and Studies
(C.P.S.P.S.)

Decommissioning of Halon 1301 Systems

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Consequences of Montreal Protocol 1987

- **production of Halon 1301 banned by most industrial countries**
- **strong import and export restrictions for Halon 1301**
- **import of Halon usually only approved upon declaration for**
 - re-filling purposes**
 - controlled storage in a Halon bank / corporate stock**
 - controlled destruction**



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EU Law Proposal and Swiss Position

- **final Draft prepared for voting in the EU parliament**
 - re-filling after discharge allowed until end of 2002
 - decommissioning of installed basis until end of 2003
- **EU law not valid for essential uses**
 - e.g. military, nuclear power plants, aircraft
- **today no control of Halon emissions (false discharge)**
 - must be expected in near future
- **Swiss Position**
 - re-filling until end of 2001; no decommissioning required by law



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Halon Up-Grading Key Question of Customers

what shall we do with the decommissioned Halon system ?

- Halon 1301 gas**
- Halon 1301 hardware**

**up-grading of Halon 1301 systems requires
a decommissioning concept including
waste management and should be
done by qualified installers only**



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Cerberus Halon 1301 Decommissioning Concept

no unwanted releases of Halon to the environment

- **decommissioning of installed system and transport of filled cylinders and hardware to corporate filling / recycling station**

declaration and recuperation of filled Halon

recycling of used hardware

intermediate stock

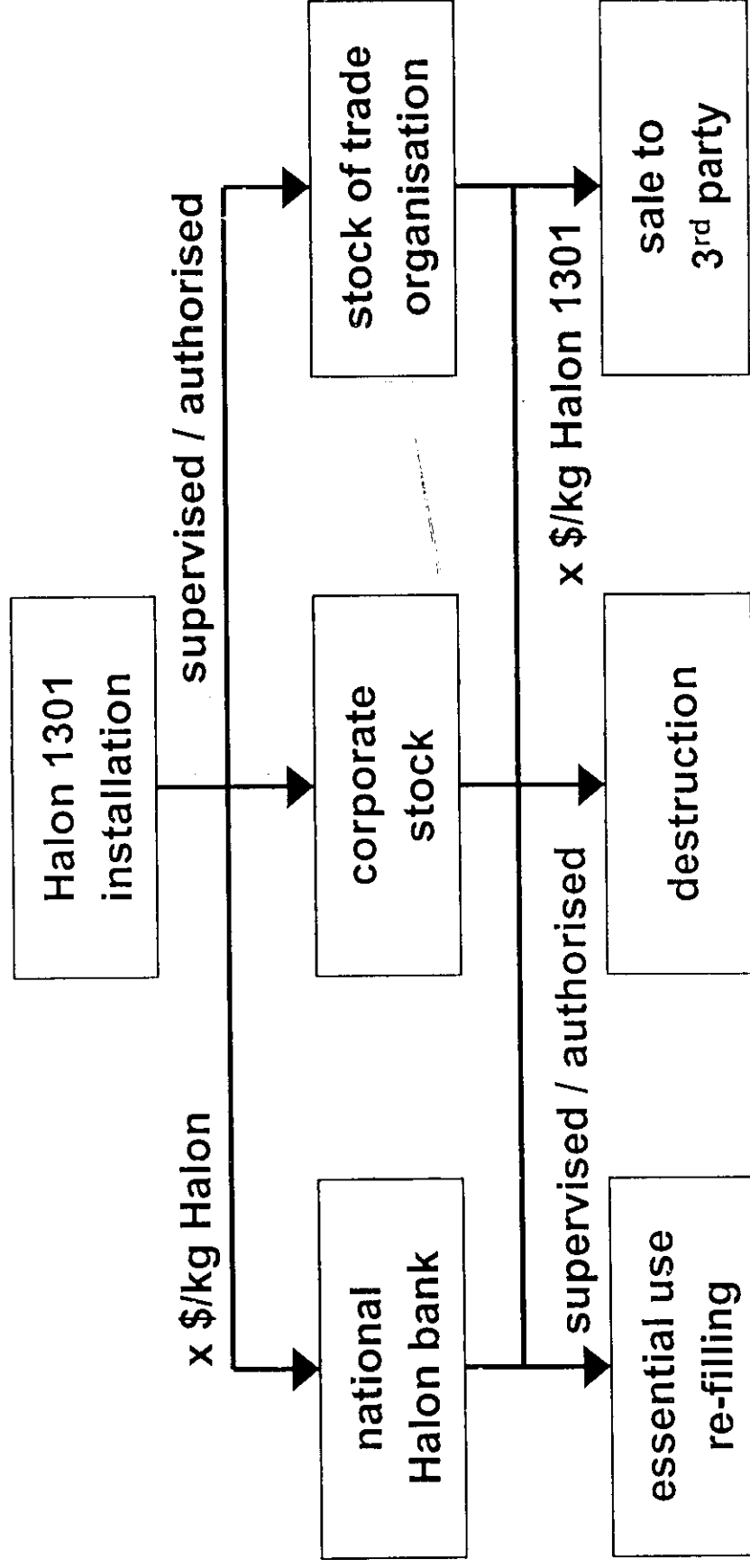
- **further use of decommissioned Halon system**

re-use, Halon bank, corporate stock, sale or waste management

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Further Use of Halon 1301



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Halon 1301 Waste Management Concept

destruction of Halon requires special processes since conventional furnaces can not be used

- **thermal destruction as additive to concrete**

released halogens are bound by Na and Ca compounds

no further special treatment required

more than 5 % of Halon lead to concrete quality reduction

- **thermal destruction in high temperature furnace**

temperature range > 1000°C

further treatment of waste gases required



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Halon Bank Objectives

all Halon 1301 that has taken out of decommissioned installations becomes part of a bank

- declaration and physical storage**
- supervised by government and trade organisation**
- access to Halon bank often limited to authorised installers only**
- use for re-filling, essential use, destruction or sales to 3rd party**

