

WANNA VIMOLPHUN : SURVEY AND ANALYSIS OF USAGE OF CHLOROFLUOROCARBONS  
AND HALONS IN THAILAND. THESIS ADVISOR : SANGSANT PANICH, Ph.D  
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The reduction of the ozone layer, especially at the pole, is the result from the chlorine radicals in the atmosphere from chlorofluorocarbon (CFC) used in many industries and halon used in fire extinguishers. Thailand is a member of Montreal Protocol, so it must control CFC usages in accordance with Montreal Protocol's regulation. This study estimated the amount of CFC and halon used in industries by questionnaires during 1990 in comparison with 1986 data. The per capita use of CFC is less than 0.3 kg/capita/yr, and some industries from case study has the ability to reduced CFC and halon usages. Some technologies such as recycling machine used in electronic industries and car air conditioners can reduce CFC usages more than 50%. The substitute substances for halon such as Monoammoniumphosphate (dry chemical) and for CFC such as Deionize Water (cleaning solvent) in electronic industry (through hole assembly) are promising. Other substitutes such as IPA in electronic industries and HFC-134a in refrigeration and air conditioners have not been successful because of lacking of technology, so technology transfer from mother companies is needed.