Clean Production as Concept and Some Applications in Turkey

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Sustainable development, is a well known concept for many people, which are dealing with the ecological status and problems of our world. But in recent years new concepts and trends are developed in environmental area, which are all aiming sustainable development and ecological safety of the world and future. At the very beginning of the civilisation there exist no industry and no waste. All the products and co-products are organic in nature and decomposable. But parallel to improvements in intellagence and social life of human, industrilization will take place and public will face with waste problem, which will be recognized when it will cause health problems, such as epidemics occured at midcentury in Europa.

It is accepted since recent years that no producing waste is more sense and practical than cleaning the waste. So the conceptssuch Waste Minimisation(WM) and Pollution Prevention(PP) will be developed against EndofPipe(EoP) technologies.

In my oppinion WM, as it name indicates aiming to minimse the amount of waste produced, but not to prevent thegeneration of waste, but CP as concept will or aim to develop such an ethic that all the steps such production, packaging, transportation, consumption and disposal will not result no or minimum adverse effects on human and environmental health.

In turkish industry textile sector will have a leading role. At 1999, 30% of annual export was textile products. But textile is a dirty industry, which will use huge amounts of water, raw materials, chemicals and energy, as a result it will produce a lot of waste as solid, eg. Clippings, liquid, eg. Wastewater (WW) discharges and as gas, eg. Emissions. Where the sludge of textile industry is taken as hazardous waste.

Textile producers in Turkey are very variable according to the technology they use. Some will use the best applicable and available technology. But many others will still use ald technology, which will generate huge amount of waste and cause serious environmental problems. There exist still small producers all around Anatolia, which will use traditional methods during production.

According to turkish regulations groundwater (GW) usage is free from charge. As a result many producres will use GW, so they will not pay much attention on the amount of water they use. But they have to pay for, if they want to discharge their WW to municipal sewerage. This will result in illegal discharging of WW to environment.

Since the beginning of 90's environmental awareness of public in Turkey increased significantly parallel to the trends in western countries. Espicially in EU countries eg Germany, Sweden etc., press will deal intensively with the toxic or hazardous chemicals used at different industries such as textile. They will focus on the problem on three steps; production ecology, human ecology and disposal ecology. According to this trends, eco-textile concept will be generated, which as concept meaning products which are produced without using any chemicals, with natural cotton, natural dyestuff and mechanical finishing.

The term Eco will get more and more popular in developed countries, which will result in generation of many different concepts eg. Eco-labels and standards eg . Öko-tex 100, DTB eco info, ELTAC-EPG etc., which are mainly dealing with the remainings on the final product.

As indicated textile industry has a major part in export potential and capacity of Turkey. As a result turkish producers must also modify their processes and products according to new environmental standards around the world

As indicated one of this new approachs is CP. Natural resources are mostly non-renewable and definitely scarce. CP concept will not cover only minimization of water, chemical and energy usage, but also usage of ecological products and utilization of residues.

There exist different governmental, eg TUBITAK (Turkish Science and Technology Research Institution), academical, eg. Different universities and research centers, and private organizations, eg. TTGV (Turkish Technology Development Foundatition) will have studies on CP concept. With this presentation I want to cover CP concept, and some applications and studies in Turkey.