IMPACT OF BUSINESS AND INDUSTRY ON THE ENVIRONMENT IN ISRAEL

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ABSTRACT

Industrialization, while important for the economic growth and development of a society, can also be harmful to the environment. Amongst other things industrial process can cause climatic change, pollution to air, water and soil, health issues, extinction of species, and more. The brief look at some of the environmental ills caused by business and industry in Israel.

Dead sea Magnesium Ltd.,

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• Air Emissions

Industry is a major cause of air pollution, since the operation of factories results in the emission of pollutants, including organic solvents, respirable particles, sulphur dioxide (SO₂) and nitrogen oxides (NOₓ). These pollutants can both harm public health and damage the environment by contributing to global phenomena such as climate change, the greenhouse effect, ozone hole and increasing desertification.

Examples of guidelines included on a business license: Guidelines for flue installation; guidelines for preparing and submitting a survey of emissions and processes; guidelines to determine the maximum permitted (rate and concentration) emission values from sources; guidelines for continuous sampling and monitoring of emissions; instructions for the prevention and treatment of odor hazards.

• Wastewater

The sources of effluent - treated or untreated wastewater that is discharged into surface waters - are many and varied. Effluent can come from industrial outlets, treatment plants, and sewers. Industrial effluents are only a small fraction of the waste in the State of Israel (about 17%), but their environmental damage has the potential to be greater than that of domestic (municipal) wastewater.

Untreated wastewater can cause environmental woes including: pollution of groundwater reservoirs, damage of transport and wastewater treatment systems, and degradation of treated wastewater and sludge such that it would disqualify them from being used for agricultural purposes. (Much of Israel’s treated wastewater is used for irrigation; hence it is important to reduce wastewater pollutants such as salts and heavy metals, which could damage vegetation and contaminate soil and groundwater.)

Examples of guidelines included on a business license: separation of infrastructure to collect surface runoff, sewage waste, industrial waste and brines; treatment and removal of wastewater in accordance with its quality; compliance with values of discharge into the sewage system; continuous sampling and monitoring; sludge removal; storage of documents.
• **Land Pollution**
  Leakage from the fuel and energy industries, as well as industries involving hazardous materials, are the main causes of land contamination in Israel. Examples of soil pollution sources are oil refineries and pipelines transporting gas, oil depots, gas stations, garages, metal treatment and coating factories, chemical plants, dry cleaning businesses, printing businesses, the textile industry, and sites where hazardous materials are stored.

  Soil contamination is caused by direct exposure to the pollutant, leakage of toxic gases into buildings, and groundwater pollution. The properties of soil result in pollutants remaining in the soil long after the pollution incident.

  **Examples of guidelines included on a business license:** proper sealing of surfaces and of storage of hazardous materials and fuels; placing of containers holding contaminants away from an established spill; guidelines to dealing with tanks and underground piping - installation instructions, leakage testing, methods of protection (cathodic protection) and monitoring (physometer); obligation to report a suspicion that a particular land is contaminated; guidelines for detection and demarcation of contamination.

• **Marine and Coastal Pollution**
  **Examples of guidelines included on a business license:** prohibition of discharge of sewage and dumping of waste into the sea without a discharge permit (either from the inter-ministerial permit committee for sewage and waste, or from the MoEP’s district offices for brine), prohibition of construction on the coastlines, in accordance with decisions made by the Committee to Preserve the Coastal Environment.

• **Hazardous Materials**
  Hazardous materials are widely used in a variety of different businesses, including industry and agriculture. If not properly treated, stored, or dealt with, hazardous materials can cause damage to human health, environment and property.

  **Examples of guidelines included on a business license:** installation of appropriate infrastructure for storing hazardous materials, including containers of liquid hazardous materials; setting goals and methodologies for disposal of hazardous waste that is generated by a business, preparedness for emergencies, etc.

• **Solid Waste**
  Solid waste is generated wherever there is human activity and is characterized by a several different streams, each with different characteristics and components. These include industrial waste, dry waste, and organic waste. The Environmental Protection Ministry’s policy is aimed at "zero waste" generation - which could only be reached through a very considerable increase over the next decade in the amount of waste that is recycled and recovered, leaving little or no waste to be buried in landfills.

  **Examples of guidelines included on a business license:** installation of appropriate waste retention infrastructure, operating guidelines for infrastructure, evacuation of waste to approved site, prohibition of waste incineration in an open area or outside the business.

• **Pesticides and Pest Control Products**
  Animals are considered dangerous to humans when there is a risk of them spreading disease, injuring a person, damaging property, or becoming an intolerable nuisance. Examples of "pests" include: mosquitoes, flies, cockroaches, fleas, fire ant, mice, and bats. Non-approved pesticides can damage the environment and result in the poisoning of living things and in environmental pollution.

  **Examples of guidelines included on a business license:** obligation to periodically monitor and test for harmful pests and their habitats; obligation to employ a licensed exterminator that uses only approved products for pest control

Available online at www.lbp.world
Asbestos and Harmful Dust

Products that contain asbestos (friable or cement) that is in a state of disintegration may cause the release of asbestos fibers into the air. This can be hazardous to the environment and can cause human illness such as lung disease.

Examples of guidelines included on a business license: prohibition of installation, construction, and repair of asbestos or any product containing asbestos or asbestos waste; the obligation to treat friable asbestos installed for thermal insulation in accordance with the 2011 Prevention of Hazards from Asbestos and Harmful Dust Law. This includes reporting asbestos discoveries, cessation of use, removal and disposal, prohibition of use of asbestos cement in a crumbling structure, prohibition of any activity that will cause disintegration of asbestos and its dispersion into the air, and the duty to employ a licensed contractor to remove asbestos cement.

- Radiation

The public and the environment are at-risk from exposure to both ionizing radiation (sources include radioactive materials, x-ray machines, and accelerators) and non-ionizing radiation (sources include electrical installations, mobile broadcasting centres and lasers). The purpose of the license conditions is to protect the environment and the public from radiation exposure, and to regulate the establishment and operation of radiation sources.

Examples of guidelines included on a business license: business must have and operate according to a valid, updated permit to deal with radioactive material or for a facility that emits radiation

- Noise

Frequent or prolonged exposure to loud noises is not only a nuisance, but can cause damage to a person's physical and mental health.

Examples of guidelines included on a business license: compliance with the 1961 Prevention of Nuisances Law and subsequent Regulations (Unreasonable Noise from Construction Equipment, Unreasonable Noise Regulations, Prevention of Noise Regulations, Prevention of Air and Noise Pollution from Quarries Regulations) that prohibit loud or unreasonable noises that may bother those within close proximity to the noise.

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