

# **Expert's statement in a range of legal regulations dealing with the storage and the utilization of livestock manure (a liquid manure and a dung)**

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## **1. Introduction – draft of problem by the orderer**

The orderer indicated that the expertise is to consider legal regulations dealing with storage and utilization of livestock manure (a liquid manure and a dung), however it contains the full analysis of all legal acts dealing with the problem, including the comparison of conformity of Polish act on fertilizers and fertilizing with the amended Annex III of the Helsinki Convention – especially Part II “Prevention of Pollution from Agriculture”.

According to the orderer the problem of manures seems to be prosy, but nowadays it poses a real and serious problem in Poland. According to different interpretations (Minister of the Environment, Minister of Agriculture, The Center of Agricultural Consultancy in Brwinów, the Helsinki Commission) some entities (individual farmers, factory farmings, farmers who use sensitive and/or protected areas) have different obligations in this range ( in the case of a liquid manure- a duty of possessing a leakproof container which allows to 4 or 6 month storing of the manure; in case of a dung- general or only in special cases a duty of possessing a leakproof dung plate).

The orderer particularly presented that “the problem boils down to one abnormality, viz, that we currently have in Poland a situation in which two equally important, but different-sounding enactments regulating aforesaid issues exist. They are: the Act on Fertilizers and Fertilization (and respective ministerial orders) and signed and ratified the Helsinki Convention (more precisely its Annex III).

## **2. Legal regulations pertaining to storage and utilization of livestock manure (a liquid manure and a dung)**

### **The register of international law enactments:**

Convention on the Protection of the Marine Environment of the Baltic Sea Area delivered in Helsinki on 9<sup>th</sup> April 1992 (the Helsinki Convention)

### **The register of the European Union law enactments:**

Regulation (EC) No 2003/2003 of the European Parliament and of the Council of 13 October 2003 relating to fertilizers (OJ L 304/1; 21.11.2003).

Regulation No 1774/2002 of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption (OJ L 273, 10.10.2002, p.1.; OJ L Special edition in Polish: Chapter 3, Volume 37, page 92).

Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control (previous version: Council Directive 96/61/EC of 24.09.1996 concerning integrated pollution prevention and control (IPPC Directive).

Council Directive 91/676/ of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (Nitrates Directive).

### **The register of national law enactments:**

- The act concerning fertilizers and fertilization dated 10.07.2007.
- The Environment Protection Act of 27.04.2001.
- The Water Law Act of 18.07.2001.

- The Waste Products Act of 27.04.2001.
- Ministry of the Environment Ordinance dated 26.07.2002 on the types of installations that cause considerable pollution of particular elements of nature and environment as a whole (Journal of Laws, 2.122.1055).
- Ministry of the Environment Ordinance dated 23.12.2002 on determining waters sensitive to nitrogen contamination from agricultural sources (Journal of Laws 2002. No 241, it. 2093).
- Ministry of the Environment Ordinance dated 23.12.2002 on detailed requirements for limiting nitrogen run-off from agricultural sources oriented programmes ( Journal of Laws 2003. No 4, it. 44).

Other studies and recommendations include:

- Code of Good Agricultural Practice (The Ministry of Agriculture and Rural Development, The Ministry of Environment, Warsaw 2004);
- An Agenda 21 for the Baltic Sea Region (agriculture sector);
- Reference document (BREF) on Best Available Techniques (BAT) for Intensive Rearing of Poultry and Pigs (Integrated Prevention and Pollution Control. Reference Document- Best Available Techniques for Intensive Rearing of Poultry and Pigs. The European Commission. July 2003);

(The acts are not legally binding and they do not constitute, except the BREF, a direct base of duties within Poland).

## **2a) Problem of mutual relation between the Helsinki Convention and Polish enactments (notably the act on fertilizers and fertilizing)**

International covenant is a main source of an international law. Country which binds with such covenant contracts two obligations: country's rules application in internal, international relations and implementation of the law within the country<sup>1</sup>.

Problems connected with international covenants were under the common law through ages. This regulation was codified in Vienna Convention on the Law of Treaties signed at Vienna 23 May 1969 (OJL 1990, No 74, it. 439).

Within the meaning of it 'treaty' means an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation is.

Basic regulations in international covenants in Polish law are embodied in the Constitution of 2 April 1997<sup>2</sup>. The most general rule of binding the Republic of Poland with the international law is contained in chapter I which regulates general rules of government. It affects not only the covenants but also the aggregate of international law sources. In turn the rules and the procedures of agreement drawing, their ratification, approval, proclamation, execution, disaffirming and changes in enuring of the covenants was determined in the act of 14 April on international covenants.<sup>3</sup>

Ratification of the covenant and its proclamation in the Journal of Laws of the Republic of Poland is required to take direct effects in Polish law. Ratification is the approval of the covenant by the respective competent organ. In Poland the ratification is within the competence of the President of the Republic of Poland, who is a representative of the country in external relations. More over the ratification act requires a countersignature of the Prime Minister. Nonetheless in case of some covenants it is essential to obtain foregoing approval of the Sejm (lower house of the Polish parliament) expressed in the statute form. It pertains to covenants related with:

- 1) peace, alliances, political pacts and military pacts,
- 2) freedom, rights and obligations specified in the Constitution,
- 3) membership of the Republic of Poland in the international organization,
- 4) significant financial encumbrance of the country,
- 5) problems regulated by the statute or for which the Constitution requires the statute.

It means that all international covenants of interest which deal with protection of the environment need to be accepted by the legislative body before they are ratified by the President. In an international practice ratification is not required for:

- 1) political declarations adopted in meetings of the heads of states or heads of governments,
- 2) resort covenants drawn by individual ministries and other central offices,
- 3) covenants drawn during war by military commanders<sup>4</sup>.

International covenant ratified by permission which is expressed in the statute takes priority over the statute, if the statute cannot be reconciled with the covenant. It has been established that the legislator setting

his seal to the ratification accepted primacy of the international covenant. Considering other covenants in internal relations priority are taken by the statute.

International covenants in the context of the internal relations are in force after their ratification according to the rule “*pacta sunt servanda*”. The countries are bound with the contract and are obligated to execute it in good faith. It is one of the most important rules of the international law. Article 26 of the Vienna Convention on the Law of Treaties (the “Vienna Convention”) specifically provides that “every treaty in force is binding upon parties to it and must be performed by them in good faith”.

In internal Polish law it is required to proclaim the ratified covenant in the Journal of Laws of the Republic of Poland. It allows to announce the subject-matter to the potential consignees. It becomes a part of the national legal order. In this way the transformation of norms to the covenant of internal law follows. Other covenants are proclaimed in the Journal of Laws of the Republic of Poland “*Monitor Polski*”.

In the context of the Helsinki Convention the question of its change in annexes is the required problem to explain. The original text of the convention has been published in the Journal of Laws of the Republic of Poland so it is an act which is directly in force in Poland and which is superior to other statutes. However, regulations which interest us the most and connected with natural fertilizers have been included subsequently in annexes though they have not been published in the Journal of Laws of the Republic of Poland yet also they have not been published in the Official Journal of the European Union).

The Act of 14 April 2000 on International Agreements provides that a legally-binding of Poland with an international agreement may take place by way of signing, exchange of notes or by other legal way. This kind of binding may happen especially when:

- 1) the Act authorizes to enter into an international agreement in this way, and the made international agreement does not violate the rules of the authorizing statute, or
- 2) the international agreement has executive character over the international agreement which is in force and which does not fulfill the conditions of art. 89 act 1 or art. 90 of the Constitution of the Republic of Poland, or
- 3) the purpose of the international agreement is a change of the covenant which is in force, including the annex to it, and the change does not fulfill the conditions of art. 89 act 1 or art. 90 of the Constitution of the Republic of Poland, or
- 4) other special circumstances require it, and the international agreement does not fulfill the conditions of art. 89 act 1 or art. 90 of the Constitution of the Republic of Poland (art.13).

As for the proclamation of such an international agreement it was assumed that ratified international covenant together with its ministerial statements and the international agreement, mentioned in art. 13, act 2, clause 1 and clause 2 and 3 is promptly proclaimed with the ministerial statements in the Journal of Laws of the Republic of Poland (art.18, act 1) as long as it comprises an executive international agreement on ratified international agreement or it changes the one. In valid cases respectively, the President of the Republic of Poland or the Prime Minister may desist from proclamation in the Journal of Laws of the Republic of Poland or in “*Monitor Polski*” of the annex enclosed to the international agreement, if they embody extensive regulations with specialized character, and which are nonproprietary for statute regulation and which affect smattering of objects and do not respect the citizens. In this case a ministerial announcement, proclaimed with the international agreement in the Journal of Laws of the Republic of Poland or in “*Monitor Polski*” contains information about space to disclose or to publish the text of an annex (art.18 act 5). However the situation described in the previous regulation does not take place here in view of the regulations interesting for us which do not affect little account of objects and which pertain to citizen’s rights. It is necessary to publish changed annexes in the Journal of Laws of the Republic of Poland. Until this moment we have dealings with the situation in which Poland is connected with them in outer relationship (in view of other countries of the Convention’s sides and of the Helsinki Commission), in turn it is not in inner relationship (because of not making them known to the addressee).

## **2b) Problem of mutual relations between Polish regulations on animal waste**

Analyzing Polish regulations which affect animal waste it is important to realize that the problem is regulated in the succession of many enactments what may cause a lot of practical problems signaled by the orderer.

The Act on fertilizers and fertilizing of 10 July 2007 has definitely fundamental meaning, which pertains to the agricultural problem of the utilization of animal wastes for production of organic fertilizers. As for the technically- constructional details of buildings for storing the wastes additional and complementary role has the

edict of the Minister of Agriculture and Food Industry on technical conditions of agricultural buildings and their location of 10 July 1997 ( pursuant to the Polish Construction Law).

The question of non-agricultural utilization of animal wastes according to their nature is subject to regulation by the enactment on wastes or by the Water Law.

Moreover some special requirements are connected with particular areas (like in case of areas of the programmes about limitation of nitrogen from agricultural sources) or with agri-environmental programmes.

### **3. The analysis of the Act on fertilizers and fertilizing of 10.07.2007**

#### **3a) Introduction**

Until the year 2000 there had not been in Poland any law regulations on the fertilizer economy. The only regulation on fertilizing had been art.155 act 3 of 31.01.1980 on environmental protection and management. It was binding the organization units and natural persons who were operating on an agricultural or forestlands managing, to apply chemical and biological agents in quantities which do not disturb environmental balance, especially do not cause a harmful soil and water pollution, animals, plants and ecosystems destruction or deterioration in their life quality and their breeding. Realization of the regulation without administrative acts would be practically impossible.

First jural act which regulates the problem of fertilizer economy is the act of 26.07.2000 on fertilizers and fertilizers application (OJL No 89, it. 991). The purpose of the enactment was to introduce in Poland some legal grounds for correct functioning of rational fertilizer economy, which will let to achieve high crop productivity and their proper quality altogether with measuring up to standards of environment protection.

The range of regulations included:

- 1) Marketing of fertilizers,
- 2) Fertilizers application,
- 3) Prevention from danger to animals and people and environment, which may occur as a result of transport, storing and application of fertilizers,
- 4) Agrochemical handling of agriculture.

Currently in force enactment is the Act of 10 July 2007 on fertilizers and fertilizing (Journal of Laws No 147, pos. 1033) which from the date of 15 November 2007 abrogated the Act of 26 July 2000 on fertilizers and fertilizing. The enforcement of new act to this extent was related with demonstrating in substantiation of the new requirements set for agriculture in so far as environment protection connected with managing agricultural production and with changes in some regulations regarding water protection and with needs which are reported by different objects and affect regulation of market of resources for agricultural production.

Necessity of changes in existing in Poland enactment state was also connected with the edict enuring in the European Union nr 2003/2003 of European Parliament and Council of 13 October 2003 on fertilizers.

The enactment regulates:

- 1) Requisites and mode of marketing fertilizers exclusive of matters of marketing fertilizers regulated in the edict enactments,
- 2) Requisites and mode of marketing plant growth regulators,
- 3) Tasks and competences of organizational agencies and units in so far as marketing of fertilizers pursuant to prescriptions of the ordinance No 2003/2003,
- 4) Application of fertilizers and agents supporting plant tillage in agriculture,
- 5) Prevention from affecting human, animal or plant health, which may occur as a result of transport, storing and application of fertilizers,
- 6) Agrochemical handling of agriculture.

The regulations of the Act do not contravene of the Water Law regulations in limiting and preventing from water pollution by nitrogen compounds from agricultural sources.

Fertilizers were defined in the Act as products purposed to supply nutrient elements to plants or to improve fertility of soil or fish ponds and they are organic, inorganic and half-organic-half-inorganic.

Organic fertilizers were defined as:

- a) dung, manure, liquid manure,
- b) faeces of farm animals, within the meaning of the regulations on organization breeding and reproduction of farm animals, except bee and furry animal's faeces, without addition of any other substances,
- c) guano – purposed to agricultural utility.

#### **3b) Trade of fertilizers and adjunctive agents in plant cultivation**



Regulations of chapter 2 of the enactment affect the trade of fertilizers and agents of plants cultivation improvement. They allow to market only those fertilizers and adjunctive agents which being properly used are not harmful for people, animals and environment condition.

The term “market” means:

- a) offering for sale, sale or any other payable or non-payable form of sale of any fertilizer or plant conditioners by:
  - i. manufacturer – for any fertilizer or plant conditioner, manufactured on the territory of the Republic of Poland;
  - ii. importer – for any fertilizer or plant conditioner, imported from third countries;
  - iii. manufacturer or any other entity placing a fertilizer or plant conditioner on the market on the territory of the Republic of Poland – in case of any fertilizer or plant conditioner manufactured or placed on the market on the territory of any other Member State of the European Union;
- b) import on the territory of the Republic of Poland of any fertilizer or plant conditioner intended for own needs.

Fertilizers which may be marketed:

- 1) manufactured of mixed types of fertilizers designated as “EC Fertilizer” and the mixed fertilizers must not be marked “EC Fertilizer”;
- 2) Meeting a standard for types of agricultural lime specified in administrative rules passed pursuant to Article 12, Clause 5, and for which contaminations do not exceed acceptable level.
- 3) Natural, consistent with the Regulation (EC) No [1774/2002](#) of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption (OJ L 273, 10.10.2002, p. 1. Regulation as last amended; OJ L Polish Special Edition Chapter 3, Volume 37 page 92, Regulation as last amended).

### **3c) Use of fertilizers and plant conditioners**

In Chapter 3 of the act of 10 July, 2007 on fertilizers and fertilizing, problems affecting threat to health of humans or animals or to the environment as a result of using fertilizers, were regulated. Obligation of using fertilizers in a way posing no threat to health of humans or animals or to the environment was embodied in the Act. In this range regulations embodied in the Act innovated:

- The rules of formulating a fertilizing plan and use of liquid manure and cowpat by entities involved in industrial breeding or breeding of pigs and entities which are the purchasers of natural fertilizers.
- The requirements for plant cultivation on own arable lands, onto which the entities involved in industrial breeding or breeding of pigs use a liquid manure and cowpat.
- The obligation of the entities involved in industrial breeding or breeding of pigs and poultry and the purchasers of natural fertilizers to provide the commune head (mayor, city president) as well as to the Voivodeship Environmental Protection Inspector competent for the place of running a business activity with a copy of the fertilizing plan accompanied by the opinion of Regional Agrochemical Station.
- The prohibition to use fertilizers in the course of rainfalls because of noticed practices of disposing of manure during rainfalls.

Fertilizers and plant conditioners which were admitted to trading pursuant to the Article 3 of Act 1 and 2, Article 5, or the Regulation No 2003/2003, are used. The fertilizers are used in a way posing no threat to health of humans or animals or to the environment. The total amount of livestock manure applied on the holding may not exceed 170 kg of nitrogen per year/hectare of agricultural area used.

A detailed way of using fertilizers was regulated in the Regulation of the Minister of Agriculture and Rural Development of 16 April 2008 concerning detailed method of application of fertilizers, and training on their application (Journal of Laws 2008 No. 80 Pos. 479). This Regulation establishes detailed method of application of fertilizers, which should be applied evenly on the whole surface of the field so that there are excluded fields and cultivations not intended for this. Fertilizers can be applied together with plant protection agents only if it has been foreseen in the instruction of applying plant protection agents of fertilizers.

*Natural and organic fertilizers in a liquid or solid form are used from 1 March to 30 November, except the fertilizers used in covered crops.*

*In the range of application of the natural fertilizers and organic liquid fertilizers- natural an organic fertilizers in a liquid form are used with the aid of the manure spreader, rain gun, or a gully emptier equipped in splashing tiles. In turn natural and organic fertilizers in a liquid form may be used only during plant vegetation onto grasslands and longstanding field crops not intended for direct human consumption.*

Natural fertilizers are covered or mixed with soil no later than next day after their application, except fertilizers applied in woods or grasslands.

For water protection against effects of using natural fertilizers the institution of protection area was ordained. Fertilizers may be distributed at least 20 meters away from water protection areas, banks of water basins and courses, lidos situated on surface water and marine coastline.

Liquid natural fertilizers may be applied:

- When groundwater level is below 1.2 m,
- Outside the shallow occurrence of fissured rocks areas.

Within the distance of 20 m from water protection areas, water surface and marine coastline, banks of water basins and courses, mineral fertilizers should be applied manually.

Special requirements were determined for the breeders. The entity involved in breeding or raising of poultry above 40 000 places or breeding or raising of pigs above 2000 places for pigs of a weight above 30 kg or 750 places for sows:

- 1) shall have a fertilizing plan prepared according to good agricultural practice principles, on the basis of chemical composition of the fertilizers and nutritional needs of plants and soils fertility, considering used waste, plant conditioners and soil conditioners in the meaning of the provisions of the Regulation No. 1774/2002, excluding these entities, which sell natural fertilizers in total;
- 2) uses at least 70% of liquid manure and cowpat onto owned arable lands, on which it cultivates plants, whereas the remaining 30% it may sell by means specified for natural fertilizer.

Responsibilities for purchaser were also determined. The purchaser of natural fertilizer, sold in a way specified for natural fertilizer, shall prepare within 30 days from the day of entering into the agreement a fertilizing plan meeting the requirements specified in Article 1, however not later than to the day of the first use of such natural fertilizer.

The Act introduce the responsibility of evaluating fertilizing plans. Regional Agrochemical Station, hereinafter referred to as the "regional station" shall issue an opinion on the fertilizing plan. The regional station shall collect a fee for providing an opinion. The fee, shall be the revenue of the state budget. This issue is regulated in the regulation of the Minister of Agriculture and Rural Development of 3 December 2007 on execution of certain provisions for providing an opinion on the fertilizing plan (Journal of Laws No. 233, Pos. 1716). The fee for the opinion is 6,30 PLN for each field, which is the area of arable lands not larger than 4 ha, or every cultivation of one species of crops on the area not larger than 4 ha. The fee is settled with cash or a bank transfer suggested by the Regional Agrochemical Station, where the fertilizing plan have been provided. If the fee is settled by a bank transfer the document which confirms the settle is provided directly to the Regional Agrochemical Station with the fertilizing plan.

The entity involved in breeding or raising of poultry above 40 000 places or breeding or raising of pigs above 2000 places for pigs of a weight above 30 kg or 750 places for sows and the purchaser of natural fertilizer, referred to in Paragraph 2, shall provide the commune head (mayor, city president) as well as to the Voivodeship Environmental Protection Inspector competent for the place of running a business activity with a copy of the fertilizing plan accompanied by the opinion within 14 days from the day of receiving of such opinion.

The Act includes also a prohibition for application the fertilizers. Apart from ban, specified in the Regulation No. 1774/2002 to use organic, organic and mineral fertilizers and soil conditioners and growth stimulants manufactured from animal by-products on the pastures, in the meaning of the provisions of the Regulation No. 1774/2002, other than dung or containing such products – specified in the Regulation No. 1774/2002, it shall be prohibited to use fertilizers:

- 1) on flooded areas, areas covered with snow or frozen to 30 cm up and in the course of rainfalls;
- 2) natural fertilizers:
  - a) in liquid form and nitrate fertilizers – on grounds not covered by vegetation, of the slope gradient exceeding 10%;
  - b) in liquid form – in vegetation period of plants intended for direct human consumption.

### **3d) Transport and storage of fertilizers and plant conditioners**

In chapter 4 of the Act general rules of safe transport and storage of fertilizers and plant conditioners were specified. This regulations prevent from omissions leading to threat to health of humans or animals or to pollution of the environment. These rules prevent also from quality changes of the products.

Fertilizers, including fertilizers designated „EC FERTILIZER” and plant conditioners, in solid form, transported in bulk, shall be secured in a way preventing their spilling, dusting or soaking. Fertilizers, including

fertilizers designated „EC FERTILIZER” and plant conditioners in liquid form shall be transported in sealed and tight packaging, containers or tanks.

*On January 1, 2011, special regulation on storing cowpat and liquid manure (they shall be kept only in tight containers of a volume enabling storage of at least 4-month manufacturing of these fertilizers) comes into effect. These containers should be sealed ones, in the meaning of the provisions issued under Article 7(2) of the Act of 7 July, 1994 - Construction Law (Journal of Laws of 2006, No. 156, item 1118, as amended) concerning technical requirements to be met by agricultural facilities and their location. In turn on January 1, 2009, the entities involved in breeding or raising of poultry above 40 000 places or breeding or raising of pigs above 2000 places for pigs of a weight above 30 kg or 750 places for sows, storage the natural fertilizers, except cowpat and liquid manure, on impermeable platforms, secured in a way to prevent leakages to the ground. However on 31 December 2010 the entities storage the cowpat and liquid manure in tight, adjusted containers. Storage of the cowpat or liquid fertilizer in a way not compliant with above requirements shall be liable to a fine.*

#### **4. Helsinki Convention on the protection of the marine environment of the Baltic Sea area of 9 April 1992**

Basic regulations concerning the prevention of pollution from land-based sources are in the Article 6 of the Convention. The Contracting Parties undertake to prevent and eliminate pollution of the Baltic Sea area from land-based sources by taking into account Best Environmental Practice (BEP) and Best Available Technology (BAT) for discrete sources. With an unblemished sovereignty each of the Contracting Parties shall apply the procedures on the Baltic Sea drainage area. The Parties shall put into effect the criteria and measures of the Annex III. To this end they shall cooperate in preparing standards or prescriptions which affect emission and droppings to water and air, environment quality and products containing harmful substances and materials. Such regulation causes that the regulations of Annex III of the Convention play a key role. The Annex III is titled “Criteria and measures concerning the prevention of pollution from land-based sources”. In the form of an original text it contained very general regulations. In the way of pollution from dispersed sources, including agriculture, it predicts their elimination by promoting and implementing Best Ecological Practice.

The Convention envisages possibility of amendments to the annexes and the adoption of annexes (art. 32):

1. Any amendment to the Annexes proposed by a Contracting Party shall be communicated to the other Contracting Parties by the Depositary and considered in the Commission. If adopted by the Commission, the amendment shall be communicated to the Contracting Parties and recommended for acceptance.
2. Any amendment to the Annexes recommended by the Commission shall be communicated to the Contracting Parties by the Depositary and recommended for acceptance.
3. Such amendment shall be deemed to have been accepted at the end of a period determined by the Commission unless within that period any one of the Contracting Parties has, by written notification to the Depositary, objected to the amendment. The accepted amendment shall enter into force on a date determined by the Commission.

The period determined by the Commission shall be prolonged for an additional period of six months and the date of entry into force of the amendment postponed accordingly, if, in exceptional cases, any Contracting Party informs the Depositary before the expiration of the period determined by the Commission that, although it intends to accept the amendment, the constitutional requirements for such an acceptance are not yet fulfilled.

4. An annex to this Convention may be adopted in accordance with the provisions of this Article.

On 31 December 2000, according to the recommendation of the Helsinki Commission No 21/1 the Annex III was divided into two parts: “Part I. prevention of pollution from industry and municipalities” and “Part II. Prevention of pollution of agriculture” adding the contents of part II. Then, on 15 November 2008 according to the recommendation of the Helsinki Commission 28E/4 significant fragments of Part II of Annex III were amended.

In Part II of Annex III the regulation 1 affects general provisions. The regulation envisages that the Contracting Parties shall apply the measures described below and take into account Best Environmental Practice (BEP) and Best Available Technology to reduce the pollution from agricultural activities. The Contracting Parties shall elaborate Guidelines containing elements specified below.

The main meaning for natural fertilizers has a regulation 2. It envisages that the Contracting Parties shall integrate the following basic principles into national legislation or guidelines and adapt to the prevailing

conditions within the country to reduce the adverse environmental effects of agriculture. Specified requirements levels shall be considered to be a minimum base for national legislation.

Among the detailed regulations a problem of animal density was regulated. It was suggested that there must be a balance between the amount of animals on the farm and the amount of land available for spreading dung (expressed as animal density), to ensure that manure is not produced in excess to the amount of arable land. The maximum amount of animals should be precised with consideration taken to the amount of phosphorus and nitrogen in manure and the crops requirements of plant nutrients.

Next detailed regulation affects location and planning of buildings for farm animals. It is assumed that they must be located and planned to protect soil and water from pollution.

Another detailed regulation is about constructing manure storages. It is assumed that the manure storage must be of such quality that prevents losses. The storage capacity shall be sufficiently large, to ensure that manure only will be spread when the plants can utilize nutrients. The minimum level to be required should be 6 months storage capacity. It is pointed out for some special technical requirements e.g. waterproof floors and sidewalls.

Next regulation affects storing waste water from animal housings and effluents from dung or the preparation and storage of silage.

Another regulation affects application of organic manures. It is assumed that organic manures (slurry, solid dung, urine, sewage sludge, composts, etc.) shall be spread in a way that minimizes the risk for loss of plants nutrients and should not be spread on soils that are frozen, water saturated or are covered with snow. Organic manures should be incorporated as soon as possible after application on bare soils.

Another regulation affects application rates for nutrients in fertilizers. It is assumed that application rates for nutrients should not exceed the crops nutrient requirements. National guidelines should be developed with fertilizing recommendations and they should take reference to:

- Soil conditions, soil nutrient content, soil type and slope;
- Climatic conditions and irrigation;
- Land use and agricultural practices, including crop rotation systems;
- All external potential nutrient sources.

In the way of natural fertilizers doses used in agriculture every year it should not exceed:

- 170 kg/ha of nitrogen
- 25 kg/ha of phosphorus

to elude an excess of nutrient ingredients, taking account soil conditions, agriculturac practises and crop sorts.

Moreover in this regulation other problems were regulated, like winter crop cover to reduce losses of plant nutrients, water protection measures and ammonia emissions.

In a context of natural fertilizers problem the regulation 4 is also important. This regulation pertains to environmental permits. It is assumed that farms with livestock production above a specified size should require approval with regard to environmental aspects and impacts of the farm. It affects installations for the intensive rearing of poultry, pigs, and cattle with more than 40 000 places for poultry, 2000 places for production pigs (over 30 kg), 750 places for sows or 400 animal units cattle.

The regulation 5 pertains to environmental monitoring and the Regulation 6 is about education, information and extension (advisory service) on environmental issues in the agriculture sector.

## **5. Fertilizers problem according to waste regulations**

The basic regulation which pertains to waste managing is the Act from the 27<sup>th</sup> of April 2001 about waste (Journal of Laws 2007 No. 39 Pos. 251, Regulation as last amended). This Act defines waste management rules in a way that assure protection of health of humans or animals or the environment in accordance with the sustainable development rules, and in particular the rule of preventing from producing waste or limiting the amount of waste and their negative environmental impact, as well as recovery or disposal of waste.

Rules of the Act are not exerted for droppings of animals, dung, manure, liquid manure designated for agricultural usage in the manner and under the rules determined in the regulation of fertilizers and fertilizing (art.2, reg.1, pos.6). *A contrario* they find use for animal droppings, dung, manure, liquid manure with non-agricultural purpose and on the rules defined in the regulation of fertilizers and fertilizing as far as they fulfil the definition of waste (so they are every substance or object belonging to a category specified in Annex 1, where the owner of certain waste disposes of it, intends to dispose or is obliged to dispose). In this case



general rules of waste managing shall be in force. In particular attention may be paid for Art. 5 and 6 of Act about waste:

Article 5. Anyone who undertakes action which causes or may cause the production of waste shall plan, project and carry out such actions as to:

- 1) Prevent the production of waste or limit the volume of waste and its negative environmental effect whilst manufacturing products, during and after the completion of the usage thereof,
- 2) Provide for the recovery compliant with the environmental protection regulations, if it has not been possible to prevent the production of waste,
- 3) Provide for the disposal of waste compliant with the environmental protection regulations, the production of which could not have been prevented or which could not have been subject to recovery.

Article 6. A waste producer shall apply such manner of manufacturing or forms of services and raw materials which prevent the production of waste or allow for maintaining the volume thereof at the lowest possible level, and limit the negative environmental impact or threat to life or human health.

## **6. Fertilizers problem according to Water Law**

Fertilizers problem is also regulated by the Water Law Act from the 18<sup>th</sup> of July 2001. (Journal of Laws. No 115, pos. 1229, Regulation as last amended). The act regulates water management with the sustainable development rule, and in particular forming and protection of water resources. Water management shall be managed in a way that is in tune with public interest and prevent from backset of ecological function of water and from backset of condition of land ecosystems and marshes directly depended on water.

Defining the term of sewage it was assumed that the term refers also to placing in water or soil liquid animal droppings, except liquid manure and manure, purposed to agricultural usage in a way and on the rules specified in the Act of 10.07.2007 on fertilizing and fertilizers (art. 9, reg. 1, pos.14b). I means that we are implementing full regime of waste law.

Among the forbiddings included in the Act one can note:

- The forbidding of placing (dumping) waste on the sea bottom within the meaning of the Act of 27.04.2001 on waste and liquid animal droppings (art.40, reg.1, pos.1)
- The forbidding of locating on the area with the risk of flooding investments of the enterprises that may have great influence on the environment, storage of sewage, droppings of animals, chemical agents and other materials that may pollute water, and forbidding of recovery management or waste neutralization and in particular waste storage (art.40, reg.1, pos.3).

The Act is meant to transpose the Nitrates Directive. Its detailed regulations connected with water protection against nitrate compounds are specified in art.47. It was assumed in the Act that agricultural production is conducted in a way that limits and prevents water pollution by nitrate compounds derived from agricultural sources. Nitrates compounds are all substances which contain nitrogen, except molecular nitrogen gas. This regulation has general character and may be applied only in relation with institution mentioned in the Act.

It was also suggested that the minister proper for the agricultural matters in agreement with the minister proper for the environment matters shall work out a set of rules of Good Agricultural Practice and shall popularize the rules, especially by organizing special courses for farmers. The set does not have legally binding character and on the base of the regulation it may be applied voluntarily (Its implementation depends on farmers' will- it is different in case of participation in agro-environmental programs).

One of the basic preventive instruments is to determine by the Regional Manager of Water Economy by means of regulation, the surface and underground water susceptible to nitrate pollution from agricultural sources and areas especially vulnerable, and from which Nitrogen ebb must be limited, accounting for:

- 1) Nitrogen compounds content in surface and underground water, in particular with an acknowledgement of underground water supplied for people and purposed to consumption.
- 2) Eutrophication level of inland surface water, internal sea water and internal coastal water, for which the eutrophication factor is the Nitrogen;
- 3) Characteristic of the area with particular acknowledgment of: sort of agricultural activity, agricultural lands structure, concentration of animal production, sort of soil and climate.

This water and areas submit to verification every four years allowing for consideration of changes of factors unforeseen during their determining. The determination and verification are carried out basing on measurements carried out by national environment monitoring. The Voivodship Inspector for Environmental

Protection carries out every four years a valuation of the eutrophication level of inland surface water, internal sea water and internal coastal water.

The consecution of appointing the areas is that within 2 years from determining the Regional Manager of Water Economy shall workout a project of actions, which will limit Nitrogen ebb from agricultural sources, what is mentioned in art.84 of the Act- Law of environment protection; the platform is introduced by a regulation of the Regional Manager of Water Economy.

The criteria for determining water as susceptible to nitrate pollution from agricultural sources and special requirements for platforms of action which are meant to limit nitrogen ebb from agricultural sources, are determined by the minister in charge of environmental matters in agreement with the minister in charge of rural development on the way of regulation (Regulation of the Minister of Environment from 23<sup>rd</sup> of December 2002 on criteria of determining susceptible water for Nitrogen compounds from agricultural sources- Journal of Laws 2002 No 241, pos 2093; Regulation of the Minister of Environment from 23<sup>rd</sup> of December 2002 on special requirements for platforms that are meant to limit the Nitrogen ebb from agricultural sources- Journal of Laws 2003 No 4, pos 44).

## **7. Technical requirements for agricultural buildings , including containers for liquid manure and dung plates**

Problem of technical construction requirements of objects connected with natural fertilizers storage was dealt with in the regulation of the Minister of Agriculture and Food Industry from 7<sup>th</sup> October 1997 on technical specifications for farm buildings and their location (Journal of Laws No 132, pos. 877- the only novelization of the regulation had a place in the regulation of the Minister of Agriculture and Rural development of 22<sup>nd</sup> June 2009 that changes the regulation on technical specifications for farm buildings and their location- Journal of Laws No 187, pos. 907). This act was taken up pursuant to the Art. 7, Reg. 2, pos. 2 of the Regulation from 7<sup>th</sup> July 1994- Building Law ( Journal of Laws 2006, No 156, pos.1118, Regulation as last amended).

This regulation is important both for requirements determined in the Act on Fertilizers and Fertilizing and independently- as an act important in investing process in agriculture.

The regulation establishes technical specification for farm buildings and machine-building plants and their location. The regulation determines conditions which, with preserving the rules of the Building Law and others, and also Polish Rules, ensure:

- 1) Safety of the construction
- 2) Fire safety
- 3) Safety of utilization
- 4) Proper hygienic and health conditions, and environment protection
- 5) Protection against noise and vibrations,
- 6) Safety of energy and proper thermal insulation of partitions
- 7) Proper utility conditions
- 8) Protection of reasonable interests of third party
- 9) Building durability
- 10) Protection of culture properties

The rules of the regulation are applied in design, construction, reconstruction, deconstruction, superstructure, conversion, modernization, and in changing of the utilization of farm building or its parts. The term of “farm building” means buildings for agriculture needs and storage of agriculture products, in particular: containers for liquid animal excrements, dung plates, storage bins for silage, storage bins for crops and pasturage, septic tanks and biogas cisterns.

Chapter 2 of the regulation affects land development. Directly the problem of storage bins for animal excrements is regulated in the article 6. It has foreseen that for animal droppings disposal and storage shall exist special devices and tanks attuned to the technologic systems of animal raising hereinafter called “tanks for liquid animal excrements”. Tanks for liquid animal excrements should have impermeable base and walls and a tight cover fitted with entrance and ventilating hole. Distances of closed tanks for liquid animal excrements, measured from lids and ventilating holes should be at least:

- 1) 15 meters from human habitation and human habitation on neighboring parcel
- 2) 15 meters from agricultural products processing plant and storage of consumption goods
- 3) 4 meters from border of neighboring allotment
- 4) 5 meters from general storage building
- 5) 5 meters from silo for grain and fodder

6) 5 meters from bunker silo (silage)

Distance of open tanks for liquid animal excrements, with the capacity of 200m<sup>3</sup> and of manure slabs should be at least:

- 1) 30 meters from human habitation and human habitation on neighboring parcel
- 2) 50 meters from agricultural products processing plant and storage of consumption goods
- 3) 10 meters from general storage building
- 4) 4 meters from border of neighboring allotment
- 5) 5 meters from silo for grain and fodder
- 6) 10 meters from bunker silo (silage)

It is admitted to apply slurry tanks in a distance lower than determined above in relation to the border of neighboring allotment or within the border, in case when the allotments will adhere to the same kind of tanks on the neighboring allotment.

Distance of open slurry tanks with capacity higher than 200m<sup>3</sup> from building objects mentioned above and the border of neighboring allotment is determined individually in decision on land development in co-ordination with Voivodship Sanitary Inspector.

It should be noticed that in subsequent regulations in this chapter there are some rules that may affect also tanks for animal excrements, e.g.:

- location of farm building with nuisance for surroundings especially because of dusting of atmosphere, odors, toxic substances production, should allow for wind direction, to place them in external position against building objects destined for human habitation and against protected areas (article 11).
- Farm buildings with nuisance for surroundings should be isolated from adhering areas by tall or mid growing green belts (article 12).

Next chapter No 3 affects farm buildings and farm buildings and machine-building plants. In this chapter problem which interests us the most is mentioned in two articles: 28 and 29. The article 28 affects construction aspects- the construction of open slurry tanks should ensure specifications of their utilization by:

- 1) allowance to access and empty the accumulating sedimentation
- 2) creating slopes in the base towards liquid manure chamber
- 3) creating slopes outside for ebb of precipitation water

Closed slurry tanks equipped with the cover other than rigid and resistant for mechanical damage and open tanks for liquid animal excrements with a height lower than 1,8 m should be protected with the paling with a height of at least 1,8 m. Service platforms and access for service of the closed tanks equipped with the cover other than rigid and resistant for mechanical damage and open tanks for liquid animal excrements should be protected with the protective barriers with a height at least 1,1 m with a crosshead located in the middle of their height and at 0,15 m height over the platform.

Waterproof isolation of the base and scarps of the slurry tanks should be made of stable insulating material. The article 29 foresees that dung plates should have an impermeable base and walls.

Lastly in the chapter 6 "Hygiene and health" in the article 48 it is assumed that installations and devices of farm buildings which serve for waste water, silage juice and other grime drainage should be designed and made in a way protecting against seeping toxic substances into water and soil.

## **8. Regulation (Ec) No 1774/2002 of the European Parliament and of the Council of 3rd October 2002 laying down health rules concerning animal by-products not intended for human consumption**

The regulation includes dung to category 2 material (Art.5.1.a). Category 2 materials shall be collected, transported and identified without undue delay in accordance with Article 7 and, except as otherwise provided in Articles 23 and 24, shall be:

- e) in the case of dung, content of the digestive tract, milk and colostrum, if the competent authority does not consider them to present a risk of spreading any serious transmissible disease:
  - (i) used without processing as raw material in a biogas plant or in a composting plant approved in accordance with Article 15 or treated in a technical plant approved for this purpose in accordance with Article 18,
  - (ii) applied to land cultivation in accordance with this Regulation, or
  - (iii) transformed in a biogas plant or composted in accordance with rules laid down under the procedure referred to in Article 33 (2);

The term of "dung" means: excrements and/or urine of farm animals, with or without a bitter, and a guano.

Detailed regulations connected with a dung are included in the Annex VIII – requirements for the placing on the market of petfood, dogchews and technical products. Its chapter III regulates requirements for dung and processed dung and processed dung products.

#### *I. Unprocessed dung*

##### *A . T r a d e*

1. (a) Trade in unprocessed dung of species other than poultry or equidae is prohibited, except for dung:
  - (i) from an area which is not subject to restrictions by threat of a serious transmissible disease, and
  - (ii) intended for application, under the supervision of the competent authorities, to fertilize land belonging to a single holding located on both sides of the border of two Member States.
- (b) However, the competent authority may grant specific approval for the introduction on to its territory of:
  - (i) dung intended for processing in a technical plant or a biogas plant or in a composting plant approved by the competent authority in accordance with this Regulation regarding the manufacture of the products referred to under Section II below.

The competent authority must take account of the origin of the dung when approving such plants; or

- (ii) dung intended for applying to land in a holding. Such trade can only occur with the consent of the competent authorities of both the Member States of origin and destination. When considering giving consent, the competent authorities must have particular regard to the origin of the dung, its destination and animal health and safety considerations.

A health certificate conforming to a model laid down under the procedure referred to in Article 33(2) must accompany the dung in such cases.

2. Trade of unprocessed poultry dung is subject to the following conditions:

- (a) the dung must originate in an area which is not subject to restrictions by threat of Newcastle disease or avian influenza;
- (b) in addition, unprocessed dung from poultry flocks vaccinated against Newcastle disease must not be dispatched to a region which has obtained Newcastle disease non-vaccinating status pursuant to Article 15(2) of Directive 90/539/EEC (1); (Council Directive 90/539/EEG from 15 October 1990 r. regarding sanitary conditions of animals, regulating trade within commune and importing from third countries poultry and hatching eggs (P.J. L 303 from 31.10.1990, page 6). Directive recently amended by Councils' decision 2000/505/WE (P.J. L 201 from 9.8.2000, page 8) and
- (c) a health certificate conforming to a model laid down under the procedure referred to in Article 33(2) must accompany the dung.

3. Trade of unprocessed dung of equidae is not subject to conditions considering animal health

##### *B. Importation*

4. Member States must give permission for importation of unprocessed dung if:

- a) it comes from third countries, which are mentioned in the Annex XI part IX;
- b) it fulfills, appropriately to considered animal species, the requirements which are mentioned in the reg. 1a;
- c) it is accompanied with health certificate, as it was foreseen in art.29, reg.6.

#### *II. Processed dung and processed dung products*

##### *A . Placing on the market:*

5. The placing on the market of processed dung and processed dung products shall be subject to the following conditions:

- a) They must come from a technical plant, a biogas plant or a composting plant approved by the competent authority in accordance with this Regulation.
- b) They must have been subjected to a heat treatment process of at least 70 °C for at least 60 minutes and they must have been subjected to processing according to rules of the procedure stated in Art. 33(2)
- c) they must be
  - i) Salmonella-free (Salmonella is absent in 25 g of processed product)
  - ii) Enterobacter-free (on the ground of aerobic bacteria amount <1000 cfu per 1 g of processed product)
  - iii) subjected to a treatment that reduce the amount of bacteria that produces endospores form and toxin; and
- d) they must be stored in a way that prevents from re-infection or wetting after processing. Hence they must be stores in:

- i) sealed and isolated silo; or
- ii) properly sealed package ( plastic bags or “large bags”)

##### *B . Importation*

6. Member States must authorize importation of processed dung and processed dung products if they:

- (a) come from third countries that appear on the list in Part IX of Annex XI;



(b) come from a plant approved by the competent authority of the third country meeting the specific conditions laid down in this Regulation;

(c) satisfy the requirements of paragraph 5 above; and

(d) are accompanied by a health certificate that conforms to the model laid down in art.29, reg.6;

III. Guano

7. Placing 'guano' on the market is not subject to any animal health conditions.

## **9. Summary**

### **9a) Problem of storing animal fertilizers**

In the issue of buildings purposed for storing of natural fertilizers the regulation of the Minister of Agriculture and Food Industry of 7.10.1997 on technical specifications of farm buildings and their location should be pointed to. However this act was applied only in design, construction, reconstruction, deconstruction, superstructure, conversion, modernization, and in changing of the utilization of farm building or its parts (it did not affect earlier developed farms that, after entering into force of this regulation fell outside of investments process mentioned above).

Towards these farms the enuring rules are embodied in the regulation of 10.07.2007 on fertilizers and fertilizing. On January 1, 2009, the entities involved in breeding or raising of poultry above 40 000 places or breeding or raising of pigs above 2000 places for pigs of a weight above 30 kg or 750 places sows, store the natural fertilizers, except cowpat and liquid manure, on impermeable platforms, secured in a way to prevent leakages to the ground. However on 31 December 2010 the entities store the cowpat and liquid manure in tight, adjusted containers.

On January 1, 2011, special regulation on storing cowpat and liquid manure ( they shall be kept only in tight containers of a volume enabling storage of at least 4-month manufacturing of these fertilizers) comes into force. Those containers should be sealed ones, in the meaning of the provisions issued under Article 7(2) of the Act of 7 July, 1994 - Construction Law (Journal of Laws of 2006, No. 156, item 1118, as amended) concerning technical requirements to be met by agricultural facilities and their location.

### **9b) Problem of utilizing animal fertilizers**

The problem of utilizing animal fertilizers for agricultural purpose is an issue of the Regulation of 10.07.2007 on fertilizers and fertilizing. In turn some special methods of this application may have a connection with a character of an area (both based on platforms purposed for limit the Nitrogen ebb from agricultural sources and protected areas) and benefiting from proper European funds (agro-environmental programmes).

### **9c) Problem of mutual relation between the Annex III of Helsinki Convention and Polish enactments**

Polish regulations have not been accommodated to requirements ensuing from the novelized Annex III of Helsinki Convention (the simplest example is the problem of the capacity of the manure tanks). The Annex III of the Helsinki Convention will not be valid in Poland until its proclamation in the Journal of Laws. Beyond the problem of publishing of the Annex, accommodation of polish law to requirements of the Annex should be performed.