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FEES FOR THE USE OF THE NATURAL ENVIRONMENT BY ENTREPRENEURS - FEE CHARGING RULES AND REPORTING

Abstract

Fees for the use of the natural environment as a price creating factor in a business require defining accountancy rules for; processes leading to use of the environment, the indicators indispensable for charging fees as well as the fees themselves. The aim of this paper is to analyze the fee charging process and to simplify the procedure for some enterprises.

The factors causing the fee charging obligation are gas and dust emissions into the atmosphere, sewage disposal into rivers and the ground, waste storage and water consumption.

Due to length limitations, this paper discusses only the kinds and methods of charging fees for air pollution - the environmental component most often used by entrepreneurs. It also presents a report connected with fees for the use of the environment. Moreover, the paper handles the way of keeping business accounts of the processes and factors leading up to this type of pollution. There exists also the problem of those, especially small and medium sized businesses, who do not do their duty by keeping current records. (MSP) These should be reported and held responsible..

On the basis of my own survey research carried out in February and March, 2012 that covers a sampling of 100 MSP businesses, an attempt has been made to identify the causes of such a situation and suggestions have been put forward to simplify the fee charging process for using the environment.

Key words: environmental fees, pollution emissions, businessmen's obligations, environment use for business, environment protection

1. Introduction

The idea of the sustainable development influences the way we think about relationships between societies, economy and natural resources; it especially

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makes people aware of the necessity to make reasonable choices with regard to renewable and non-renewable natural resources.

Sustainable development is defined as a pattern of the socio-economic growth in which there is an integrated process of political, economic and social activities which aim to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for generations to come [art. 3 pkt 50, Prawo ochrony środowiska, Dz. U. 2008 nr 25, poz. 150 ze zm.].

One of the economic tools to deal with this issue are fees for the economic use of the environment as required by Polish law. Businessmen using the environment are required by law to monitor the extent to which the environment is being used during the business activity and to pay the due fees. Entrepreneurs, especially running small and medium size businesses, are not aware of their duty to keep records and file a report, or they think that fee charging and reports are too complicated so that they knowingly do not fulfill their legally binding obligations.

2 Environmental charges as a price for environment use

The fee for the environment use makes up one of many kinds of the so called environmental charges. Environmental charges mean the financial liability is imposed on organizations and businessmen and is executed by the public authorities (either central or local) in exchange for the use of natural resources such as air, water, land surface and others [Małecki, Kontrowersje.. 2007].

Environmental charges are defined in literature as a particular price for each unit of pollution emissions into the environment, e.g. 1kg of environmentally toxic gas or dust as well as the price for the used natural resource e.g. 1m³ of water. The price here means the amount of money which the purchaser is ready to pay in order to secure the right to use this natural resource. It is difficult to estimate the price of the environment. The European Environment Agency uses the term “environmental charge”; it means the financial liability consisting in the state service for the taxpayer in the form of the possibility to use the environment [Małecki, Oplaty...2009].

From the point of view of the environment economy, the environmental charges are the price for the right to use the natural assimilation capacity, whose scale should be calculated on the basis of the external costs caused by the disadvantageous activity. The environmental charge is not a market based (but decided by the state) price for the resources and environment quality.

The charges for environment use are a form of a public (not market based) rationing of the access to these resources [Fiedor 2002].

The environmental charges are the largest with regard to the value and basic kind of obligatory environmental fees in Poland; their share in all other environmental charges made up over 40% in 2008. [Małecki, Ocena funduszy...2011].

They are charged in PLN. The rates change every year depending on the inflation indicators.

The environmental charges rates are calculated so they take into account the negative influence on the environment of pollution emissions or the use of natural resources. Thus they rise together with the increase of their impact on the environment [Małecki, Opłaty...2009].

3. Entrepreneurs' duties with regard to calculating, recording and reporting environmental charges

As required by law for protection of the environment [Dz. U. 2008 nr 25, poz. 150 ze zm.] the economic entities using the environment are:

- a) an entrepreneur (businessman, a legal person, an organizational unit, which is not a legal person, who is guaranteed a legal status in a separate regulation; does business in their own name, as well as with civil law partnership associates (wspólnicy spółki cywilnej) and people working in agriculture dealing with the cultivation of animals, plants, market gardening, forestry and fresh water fish farming; and a health care provider who practices the profession of medicine, having private practice or specialist private practice [ustawa o swobodzie działalności gospodarczej Dz. U. 2007 nr 155, poz. 1095 ze zm.],
- b) an organizational unit which is not an entrepreneur (e.g. school, local authorities)
- c) an entrepreneur who is not an economic entity and who is mentioned in literature and uses the environment within the scope which requires permits.

All of these economic entities are required by law to calculate and pay charges for gas and dust emissions into the atmosphere, sewage disposal into rivers and the ground, waste storage and water consumption.

Table 1 shows the method for calculating charges for pollution emissions into the atmosphere in the system in which each entrepreneur using the environment is obliged to report calculated values for the use of the resources to the Chairman of the local government (Urząd Marszałkowski) and to the local Environment Protection Department (Wojewódzki Inspektorat Ochrony Środowiska - WIOŚ).

Table 1 The analysis of methods of calculating the charge for pollution emissions into the atmosphere

lp	Gas or dust emissions into the atmosphere	Payer	The way of calculating the charge	Comments
1	2	3	4	5
1	Sources of generated substances emitted into the air	The entrepreneur emitting gases or dust into the air e.g. in the technological processes, non-organized emissions and other sources which are discussed in column 2	The charge for the emission into the air is calculated in PLN for 1kg of substance emitted into the air. Table G in the announcement by the Environment Minister dated 4th October, 2010 about the amount of charge rates for the use of the environment for 2011 comprises 67 entries of gases and dust for which the rates PLN/1kg emission have been established.	In case of the lack of required permits for the emission of gases and dust into the air or an integrated permit, the calculated rates are higher by 500%.
2	Reloading of petrol		The charge in the established lump sum rate PLN/Mg (Table H of the announcement by the Environment Minister dated 4th October, 2010) of reloaded petrol. dependent on the kind of the filled/ emptied container corrected with regard to the reduction in emissions.	
3	Furnaces with nominal thermal power up to 5 MW which burn coal, coke, wood, heating oil, or gas fuel.		The lump sum for the amount of the used petrol dependent on the kind of furnace (Table I of the announcement by the Environment Minister dated 10th October, 2010).	This entry deals with the furnaces which do not require permits for gases and dust emissions into the air.
4	Combustion engines		The lump sum rate PLN/Mg per unit of the used fuel dependent on among others the kind of the combustion engine, the registration date, kind of fuel; in total 32 types differentiating rate per unit (Table J of the announcement by the Environment Minister dated 4th October, 2010).	
5	Poultry farms		The unit rate PLN/100 battery cages and the year dependent on the way of raising and the kind of poultry (Table K of the announcement by the Environment Minister dated 4th October, 2010)	

Source: my own study based on the: obwieszczenia MŚ w sprawie wysokości stawek opłat ..., MP nr 74, poz. 945; rozporządzenia RM w sprawie opłat... Dz. U. 2009 nr 196 poz. 1217; rozporządzenia MŚ w sprawie wzorów wykazów..., Dz. U. 2009 nr 97 poz. 816; ustawy - Prawo ochrony środowiska, tekst jedn.: Dz. U. 2008 nr 25, poz. 150 ze zm.

Every economic entity using the environment is obliged to file reports about the scope of the environment use and to pay charges; the calculation of the charges is done individually.

There is a uniform rule with regard to its collection (calculating and paying) making the economic entity using the environment totally responsible in this respect [Małecki, Opłaty...2009]. At present the fiscal period for the charges covers 6 months, with the exception of water disposal from animal or fish farms; if the calculated environmental charge for a particular component does not exceed 400 PLN for 6 months, the economic entity is exempt from paying the charge, but is not exempt from the obligation of filing a report about the scope of the environment use. There are also many exemptions from these charges. However, because of the limited scope of this research paper, they will not be considered here.

The report should be submitted to the Chairman of the allocated local government where the use of the environment occurs. It means that the entrepreneur, whose headquarters are in a different province from that of the manufacturing plants, is obliged to submit several reports and submit the appropriate charge payment. If the report is not filed, a fine of up to 5 K PLN is imposed as per regulations from May, 2012.

Moreover, each economic entity using the environment is obliged to make a report and submit it to the national database up until the end of February each year; the report should cover the previous calendar year containing a detailed report of the scale of greenhouse gas and other substances emissions as well as the activity which generates these emissions.

The national database is run by the National Centre for Balance and Emissions Management (KOBIZE) [ustawa z dnia 17 lipca 2009 r. o systemie zarządzania emisjami gazów cieplarnianych i innych substancji, Dz. U. 2009 nr 130, poz. 1070 ze zm.]. Due to the scope and complexity of the subject matter this research paper does not include reports to KOBIZE through (the portal www.krajowabaza.kobize.pl).

Each entrepreneur is obliged to record data in such a way as to enable the calculation of charges and the filling in the relevant data on standard forms. The broad term, the record (the record of environmental charges – outlining the processes as well as indicators and factors for the environment use and also the amount of the charges), is the component of company accountancy. The essence of accountancy is rendered well by the American Accounting Association which defines accountancy as a process of identification, measurement, as well as economic information transfer, which enables the forming of opinions and decisions by recipients of this information[Drury 1996]. Therefore accountancy is the process of supplying information which is helpful in rational decision making. This very function of accounting will be interesting for entrepreneurs

in the context of sources and the scope of the environment use as well as the amount of the due environmental charges.

The system of business record consists of the following three kinds of records: operative, accounting and statistical. The operative record is a system of current register made in natural or money units. They serve to observe, measure, record, and to classify particular chosen phenomena connected with the economic entity's activity e.g. recording of the factors causing the environment use. The accountancy record called accounting is based on among others on data supplied by the operative record and uses the specific method of current reflecting of economic data called the method of double register. The statistical record deals with quantitative description of phenomena and economic processes taking place in the economic unit; it is based on the information supplied by the operative record and accounting [Nowak 2002].

The operative record with regard to the environmental charge depends on the recording of the factors and processes causing the use of the environment as well as indicators determining the amount of charges. The record of the factors causing the emissions into the atmosphere must be carried out with scrupulous attention to detail; the example of such recording is presented in Table 2.

Table 2. Data gathering about the amount of pollution emissions into the air in the entrepreneur's operative record.

Gases and dust emissions into the air	The scope of gathered data
for the sources of substances emitted into the air	places of generation, sources of generation, names and codes of emitted substances and the amount of emissions, characteristics of fuels causing emissions
for reloading of petrol	the amount of reloaded petrol based on the division for a particular local administrative district, kind of filled/emptied container (a container with the permanent roof, floating one, an above the ground, underground container), filling of railway or car cisterns, car containers,
for the furnaces of up to thermal power of up to 5 MP, for which permit is not require or the integrated permit	the amount of the used petrol based on the division for a particular local administrative district, kind of used fire grate in the coal and coke furnace, a kind of used oil and gas, the nominal thermal power of the furnace,
for combustion engines	the amount of used petrol based on the division of 'age', the type of the engine in a vehicle or a machine- the table includes 32 differentiating entries
for fish farms	the kind of raised poultry, the way of poultry farming (battery cages, without cages, with mechanical waste drying, or mulched raising)

Source: my own research based on rozporządzenie MŚ w sprawie wzorów wykazów..., Dz. U. 2009 nr 97 poz. 816

The moment of the event description in the operative record should result from the accountancy policy of the company, with the reservation that the comparison of data resulting from the operative record and data recorded in the accountancy record should be ensured. Charges for a particular use of environment components will be calculated on the basis of the data gathered in the process of an operative record.

For the management purposes the above record yields the data which for example informs about an old manufacturing technology causing excessive pollution emissions which places the burden on the entrepreneur, the age of the transport fleet, the environmental “friendliness” of the used materials, raw materials, or the water management. It gives a view to the increasingly effective operations of “end of the pipeline” industries; meaning the ones that neutralize or reduce already generated pollution e.g. sewage processing plants, landfill sites, etc. [Famielec, Broniewicz 2006].

The accounting record of events connected with environmental charges will depend on:

- making an appropriately detailed record of accountancy documents confirming the purchase, wear and use of materials in processes causing the environment use e.g. the cost of the fuel for vehicles, manufacturing machines and other appliances with combustion engines, the cost of the lacquer in the manufacturing process and so on (the value resulting from detailed accounts should be in accordance with the data recorded in the operative recording after appropriate calculations for a particular kind of the event that can be measured qualitatively and quantitatively).
- keeping a record of charges for the environment use according to the place of generation of such costs dependent on the process from which the charge has been calculated, the records should be detailed enough to enable checking and confirmation of these figures together with calculated charges according to operations records.

Charges for the environment use can be part of the following components of the entrepreneur’s property: costs of the completed development works, assets, assets under construction, investment real estate, finished products, semi- finished products, production under way as well as long term contracts.

With regard to the liabilities there arises a question if the amount of the charges for environment use is an outright obligation or a passive settlement of accrued expenses. The analysis of the regulations concerning accounting tend to suggest that the calculated monthly charges should be of a guaranteed nature and not one in question . The frequency of payment should be regulated according to accounting rules for a company. It seems justifiable to accept this solution based on a monthly calculation and recording of charges, especially

in light of the fact that the charges can have influence in estimating the costs of the finished products or offered services.

Environmental charges are an ecologic obligation otherwise resulting from past events where there existed a duty to establish a reliably determined value of the negative effects of business units in an environment that will use the current or future assets of the entity [Famielec, Stępień, Informacja...2005]. The environmental charges are a public-legal obligation that is subject to restrictions of the legal regulations of the Tax Ordinance Act (Ordynacja podatkowa).

The component parts of the environment use can be an element of the cost of manufacturing the products or offered service. The definition of the cost generation that is included in the accountancy regulation as well as the standpoint of the Accountancy Standards Committee (Komitetu Standardów Rachunkowości) [Dz. U. MF 2007 nr 2, poz. 11] lets one state that the environmental charges can be its component. The charges can be connected with immediate or indirect costs of manufacturing, or they can make up this cost on their own. Similarly, they can also be an element of unused manufacturing capabilities.

The use by the entrepreneur of the gathered information within the legal framework and duties for the management purposes is possible or even advisable. It should be stressed that particular competences of the enterprise let one define the areas giving it a competitive advantage over its competitors. They can deal with among others an environmentally friendly way of manufacturing that is not employed by competitors, which enables energy reduction and material use or reduces taxes and environmental charges [Famielec, Stępień, Informacja...w zarządzaniu, 2008].

4. An example of calculating charges for gas and dust emissions into the air

In order to show a complex nature of calculating and reporting of environmental charges an example of calculating the charges connected with pollution emissions into the air will be presented. It will show, though within a limited scope, what information every economic entity has to fill in the specification tables prepared by the Environment Ministry, which make up the report submitted to the Chairman of the local government of Malopolska Province.

Example 1

Assumptions:

In the last six months of 2011 the entrepreneur identified the following processes causing pollution emissions into the air resulting from the business activity in Cracow.

- 1 welding in the workshop,
- 2 emissions from a furnace with thermal power of 9 MW, a mechanical fire grate and natural draught, burning black coal.

In this period the entrepreneur:

- 1 used 5.000 electrodes for welding in the open air
- 2 burnt 100 tones of black coal with energy of 24000 kJ/kg, containing 20% ash and 0.5% sulphur, the installation is equipped with a cyclone separator with 99% efficiency, and the content of combustibile particles makes up 25% (the economic entity does not have a required permit for gas and dust emissions; therefore there appears an obligation for calculating higher charges).

Establishing of the entrepreneur's duties

In connection with environment use, the entrepreneur is obliged to fill in the form defined in the attachments 1 -5 of the announcement of the Environment Minister dated 18th June, 2009 according to specified formulas ...[Dz. U. 2009 nr 97 poz. 816] as well as to submit the report to the Chairman of the local government of Malopolska Province and the local Environmental Protection Office. Data concerning pollution emissions into the air should be recorded in attachments 1 and 2 which consist of 5 Tables (A, B, C, D, E). Table A includes, among others, information about: the location where the installation is used, the kind of installation, the kind of the protection installation used, the permit for emissions, the amount of used emitters, the amount of emissions divided into detailed substances as well as the amount of charges. Moreover, fuel characteristics should be included.

The calculation of the emission amounts and charges connected with welding and furnace Welding: the kind and amount of substances emitted into the air during welding of a given type of electrodes can be defined on the data given by the electrode manufacturer. Table 3 shows the calculation of the emission amount and due charges for the emission.

Table 3: Calculating the amount of charges for emissions during the welding process

Emission from one electrode according to the manufacturer		the amount of emission		the amount of the charge per unit for gas or dust [PLN/kg]	total sum of the charge [PLN]
substance	the amount [mg]	used electrodes [numbers]	total emission [kg] (2 x 3)		
1	2	3	4	5	6
(NO ₂) nitrogen dioxide	80	5 000	0.40	0.48	0.19
(CO) carbon monoxide	30	5 000	0.15	0.11	0.02
other dust	900	5 000	4.50	0.52	2.34
Total:	x	x	x	x	2.55

Source: my own study on the basis of the carried out research; ustawy o swobodzie... Dz. U. 2007 nr 155, poz. 1095 (ze zm.)

Furnace. The entrepreneur does not have an appropriate analysis of gas and dust emissions into the air from the used furnace; therefore in order to estimate the amount of emissions they can use the indicators included in the information-instruction manuals issued by the Ministry of Environmental Protection, Natural and Forest Resources (currently the Ministry of Environment) [April 1996], still in force. The substance emissions generated by burning black coal in furnaces with thermal power of 3-12 MW and with a mechanical fire grate together with charges calculations are included in Table 4.

Table 4. Calculations of the amount of the charge due to the furnace pollution emissions into the air

Emission from the hearth: a mechanical fire grate. thermal power of 3-12 MW		the amount of emission		the amount of the charge for gas of dust per unit [PLN/kg]	the charge higher by 500%	total amount of the charge [PLN] (4 x 6)
substance	the indicator of emission [kg/Mg]	the indicator of emission [kg/Mg]	total emission 3x100 Mg [kg]			
1	2	3	4	5	6	7
(SO ₂) sulphur dioxide	16*s	8	800.00	0.48	2.88	2 304.00
(NO ₂) nitrogen dioxide	4	4	400.00	0.48	2.88	1 152.00

Emission from the hearth: a mechanical fire grate. thermal power of 3-12 MW		the amount of emission		the amount of the charge for gas of dust per unit [PLN/kg]	the charge higher by 500%	total amount of the charge [PLN] (4 x 6)
substance	the indicator of emission [kg/Mg]	the indicator of emission [kg/Mg]	total emission 3x100 Mg [kg]			
(CO) carbon monoxide	10	10	1 000.00	0.11	0.66	660.00
(CO2) carbon dioxide	2 100	2 100	210.00	0.26		54.60
dust from fuel combustion	2.5*Ar_sk	0.67	67.00	0.32	1.92	128.64
soot	0.004*Ar	0.08	8.00	1.32	7.92	63.36
benzo(a)pyrene	0.0016	0.0016	0.16	340.58	2 043.48	326.96
Total:	x	x	x	x	x	4 689.56

Explanation for calculation in Table 4:

- column 2:

s- total sulphur content expressed in percentage

Ar – ash content expressed in percentage

Ar_sk – ash content expressed in percentage corrected in accordance with the device efficiency and the content of combustible elements in dust: $Ar_sk = 20 \times (100-99)/(100-25) = 0.27$

- column 6: the amount of the charge per unit taken from Table G of the announcement by the Environment Minister dated 4th October, 2010 made higher by 500% (due to the lack of the permit), it does not apply to CO2 (carbon dioxide) because this substance is not present on the list issued in the announcement by the Environment Minister with regard to reference ...[Dz. U. 2010 nr 16 poz. 87]

Source: *my own study on the basis of the carried out research; ustawy o swobodzie...* Dz. U. 2007 nr 155, poz. 1095 (ze zm.)

The total amount of charges for pollution emissions into the air makes up 4,692.11 PLN in the presented case and should be rounded to full PLN.

The calculated charge of 4,692 PLN should be paid to the bank account of the local government where the use of the environment takes place, in this case it is the local government of Malopolska Province.

In the case of lack of payment for the environmental use by the entrepreneur or suspicions relating to the reliability of its calculation, the charge will be calculated by the Chairman of the local government through the administrative procedures, and its amount will be established according to their own decisions or the results of the control by the local inspector from the environmental protection offices.

5. The examination of MSP sector entrepreneur's knowledge about the obligation to calculate and report environmental charges

Every economic entity making use of the environment, no matter to what scale or the size of the entity, is obliged to maintain records and report this fact. Every entrepreneur using the environment should:

- recognize the processes leading to use of the environment
- establish the scale to which the environment is used (e.g. the amount of emissions, fuel consumption), which requires maintaining appropriate records,
- calculate charges for the environment use,
- fill in appropriate tables
- submit the report and pay the charges (if they exceed the amount of 400 PLN for the component) to appropriate local governments by the end of the month of each 6 months' period.

For the purposes of this paper in February and March, 2012 the pilot study (in the form of a research survey) was carried out in the region of Malopolska Province among MSP entrepreneurs; the aim of the research survey was to examine general knowledge about duties resulting from the use of the environment within the scope laid down by the legal regulations concerning environmental protection in force since 2002. The research was conducted in the form of a questionnaire. One hundred entrepreneurs (who were eager to participate) were surveyed (the invitation was sent to 185 entrepreneurs). They were the clients of 4 accountancy offices run in Kraków from which 93 are a micro businesses, 3 are small ones and 4 are medium size ones.

The research was addressed to MSP entrepreneurs. From the perspective of a several years' experience as a tax adviser and chartered auditor of the author, it can be said that it is a group which uses the environment on an insignificant scale; in principle, it does not have any duty to pay charges for environment use.

During the survey the respondents explained, to eliminate any doubt, whether they understood the term 'charges for environment use', and what they understood to be "use of the environment" which would require a company to record and report their activity. The survey was carried out in the presence of a tax accountant representative of the entrepreneur for verification purposes in the case that the data was taken from the tax records.

Table 5. A list of results of the research survey concerning general knowledge of duties connected with charges for environment use by MSP sector entrepreneurs

Questions and answers		The size of the enterprise		
		Micro ¹⁾	Small ²⁾	Medium ³⁾
Is the entrepreneur aware of his duty to record and report any charges for the environment use?	Yes, one knows them and carries them out	5	1	3
	Yes, one knows them, but does not carry them out, because one thinks they are too big a burden for the business run by them	22	2	1
	No, one does not know them and therefore does not carry them out	59	-	-
	No, one does not know the duties and is not interested in getting to know them	7	-	-
Has the entrepreneur submitted the report for the environment use in 2011 to the Chairman of the local government and the Local Inspectorate of Environment Protection (WIOŚ) ?	yes	5	1	3
	no	88	2	1
Has the duty to pay the environment charges arisen, i.e. has the amount of these charges exceeded 400 PLN in any one month over a six month period?	yes ⁴⁾	4	-	-
	no ⁵⁾	89	3	4
The period of the economic entity's business activity	the period in years	1 to 25	4 to 15	10 to 16
	the average period in years	7,5	9	12

1) micro: - (i) – employs fewer than 10 workers and (ii) its annual turnover does not exceed € 2 million or the total annual balance does not exceed € 2 million

2) small: - (i) employs fewer than 50 workers and (ii) its annual turnover does not exceed 10 million or the total annual balance does not exceed € 10 million

3) medium size: - (i) employs fewer than 250 workers and (ii) its annual turnover does not exceed € 50 million or the total annual balance does not exceed € 43 million

4) the obligation was created with the economic entity that did not submit the report and did not pay the charges, the amount of the charges was calculated by the respondent on the basis of the estimated amount given by the questioned person in response to the

question of the respondent about factors/ processes causing the environment use, which can appear in the company with regard to PKD (the Polish Classification of the Business Activity).

- 5) the lack of the obligation resulted from the specification tables or was calculated by the respondent on the basis of the estimated data given by the questioned person in response to the question of the respondent about factors/ processes causing the environment use, which can appear in the company with regard to PKD

Source: my own study on the basis of the carried out research; ustawy o swobodzie... Dz. U. 2007 nr 155, poz. 1095 (ze zm.)

The list of the results of the questionnaire is shown in Table 5 (the numbers in the table correspond to the number of the questioned respondents in particular groups). The research shows that only 9% of the surveyed entrepreneurs know their obligations connected with the environment use, 25% knowingly do not fulfill the obligation, 59% do not know about it, and 7% are not interested in getting to know their obligation. It is worth pointing out that they are not 'young' entrepreneurs. Therefore the lack of knowledge concerning obligations which they should be bound to for quite a while is indeed one of great concern.

The very fact makes one wonder about the sense of finding legal solutions, which are at best not respected, and executing them through inspections, seems to be impossible at present in light of the costs associated with such inspections.

It is worth noting that only 4% of the surveyed entrepreneurs slightly exceeded the limit obliging them to pay charges for the environment use. For example an entrepreneur having a fleet of 5 vehicles registered since 2005 or having the EURO 4 certification with a petrol engine, would have to burn about 90.000 liters of fuel (the average daily use about 490 liters of fuel) during a period of 6 months to exceed the limit of 400 PLN and pay the environmental charge. Even if the entrepreneur did not exceed the limit, above which the charge is to be paid, they would have to submit a report indicating the amount calculated no matter what the amount would be. In example 1 the entrepreneur would be obliged to submit a report concerning a charge of 3 PLN resulting from welding if it was the only process which would generate the emission into the air in the last 6 months' period of 2011.

6. Modification suggestions concerning the reporting of environmental charges for MSP sector entrepreneurs

As one can notice the operative record that deals with calculating environmental charges is very detailed due to the information which is to be supplied in a report. In case of entrepreneurs who do not exceed the legal regulation limit of 400 PLN for the use of any of the components of the environment and the kind and scale of the business activity show that the environment is used in an insignificant scope, one should consider solutions simplifying recording and reporting obligations.

The discussed issue mainly deals with entrepreneurs belonging to a micro and small businesses group which are not included in legal regulations about accountancy. Moreover, entrepreneurs paying income tax in the form of a fixed amount (karta podatkowa) or a lump sum do not keep any tax records including calculation of costs. They do not have to record the use of materials or resources, but they must maintain revenue and expense records (podatkowa księga przychodów i rozchodów). They often do not have any detailed information about the kind of the costs involved and very often they are not interested in this subject. Filling in specification tables and additional recording is perceived as too heavy a burden; in addition, there is another reporting obligation which takes up time and does not create an incentive to protect the environment as it does not apply any financial burden. It is worth pointing out that the number of micro businesses at the end of 2010 amounted to, according to GUS (Central Statistical Office), 1,716.3 K out of 3,909.8 K registered companies; therefore it can be supposed that a significant number of economic entities using the environment do not fulfill the reporting obligations.

A proposal which can be considered in this respect and which requires a change in the present legal regulations is the use of an analogous solution similar to the income tax settlement of businessmen who pay fixed amount taxes (karta podatkowa). The present complicated way of calculating charges could be replaced with a simplified method. The entrepreneur would be obliged to calculate the amount of the environmental charges, e.g. on the basis of the main business activity carried out in the tax year, the number of vehicles, the number of heated buildings and facilities. It would require that the Environment Ministry develop a table of charges depending on the above mentioned parameters. Thus the calculation of charges would be simplified; it would not be necessary to keep detailed records of factors and the identification of processes leading to environmental use.

The calculated charge would be declared in annual income tax returns which each entrepreneur is obliged to file. This fixed charge would not be subject to any reductions or exemptions. The Revenue Office would be a collector and would transfer the charge to the local government which would handle its further distribution.

The carried out questionnaire included the above suggested proposal, and the entrepreneurs were asked about the acceptance of the lump sum charge calculated in the described way as well as about its upper limit. Among those surveyed 100% were in favour of the lump sum charge of PLN 100 for the environment use annually, which would be differentiated according to the kind and scale of the business activity and which would replace the present system of recording and reporting obligations.

7. Conclusions

Environmental charges together with factors leading to them deserve to be examined (in detail) and accounting of entrepreneurs should be taken into consideration. This would provide a more informative basis, which could be the basis for decisions connected with activities aimed at modernizing existing equipment, using more environmentally friendly materials, modifying the sewage processing system, and such, which would very quickly improve quality, etc.

However, it requires a lot of work input, and as a result more expense. There is also no point in doing it in each individual company. In enterprises using environmental resources on a large scale it seems justifiable from a managerial point of view to keep extensive accounts connected with activities generating charges, and it is also the basis for calculating the appropriate amount of charges.

For the MSP sector entrepreneurs where the scale of the environment use is insignificant, research carried out points to the fact that the economic entities do not know their recording and reporting obligations connected with the environmental charges. In cases where they are aware of their obligations, most do not pay charges as they do not exceed the limit of the amount exempted. In the sample of surveyed entrepreneurs only 4% would slightly exceed the exemption limit and as a result they would be obliged to pay the charges. It seems that the same recording and reporting obligations for economic entities which use the environment on a large and an insignificant scale are not justifiable because of the work costs involved. The simplified way to calculate environmental charges for some economic entities and not using exemptions in this respect should bring about the equal chances for the competitiveness of the entrepreneurs who comply with the obligations resulting from the Environment Protection Law with those who do not comply with them.

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