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14. *Bolshakov VN* Legal basis using legal methods of monitoring technology AIC Ukraine / *In the.N. Bolshakov, IL // Rogovskiy Haukovyy bulletin of the National University of Life and Environmental Sciences of Ukraine. Series: machinery and power APC / Redkol .: DO Melnychuk (ed. Ed.) And others. - K., 2013. - Vol. 185, p. 1. - C.234-242.*

*In Article rassmatryvaetsya Effect legal rehuly- rovaryya methods of monitoring selskohozyaystvennoy Technics and Efficiency Policy ynnovatsyonnoy AIC Ukraine.*

***Monytorynh, method, technology.***

*In paper agency of legal regulating of methods of monitoring of agricultural machinery and efficacy of innovative policy of agrarian industrial complex of Ukraine is observed.*

***Monitoring, method, machinery.***

504,056 UDC: 625.711.1:  
504.06

### **ECMeaningful deep geological parameters MAN-MADE OF LINEAR objects (roads)**

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and Highway University***

*Youdividend environmentally significant parameters of the road by analyzing the literature, specifications and technical documentation method and expert evaluations. Characterized interrelation between the selected parameters and environmental condition of roadside space.*

***The road, motor flux roadside space environmentally significant parameters.***

**Resolutionska problem.** Prand determining environmental safety in the area of influence of man-made linear objects, including roads, promising selection is considered environmentally significant

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thshouts road and road transport stream (motor system). DN Kavtarazde relates to the following elements pavement, longitudinal slope, throughput, lifetime, equal coverage in terms of curvature, the presence of intersections composition and intensity of motor flow, speed, technical condition of vehicles, fuel quality, etc. [1].

### **AnaLease Latestnih dossurvey findings.**

AnaLease Categoriesormatyvno legal basesand State Road Service (Ukravtodor) in the area of environmental safety regulations allowed to select in which most correctly listed and described output parameters of highway and road space, traffic flow and weather and climate conditions in the assessment of the actions of public roads on the environment:

- M 218-02071168-626: 2007 Methods of assessing the environmental impact of public roads on the environment - the most complete list and normalize environmentally significant parameters;
- POP-218-141-2000 The accounting traffic
- normalize the parameters described in 218-02071168- M 626: 2007;
- DBN V.2.3-4: 2007 transport facilities. Highways - normalize the parameters described in 218-02071168- M 626: 2007;
- In theBN H.1-218-050-2001 turnaround working lives pavements and coatings on public roads with additions and refinements - normalize the parameters described in 218-02071168-626 M: 2007 [2].

SellP parameters avtotransponoyi systems that have the greatest ecological value was based on the analysis literature, specifications and technical base and method of peer reviews. At the discretion of the expert group consisting of 10 people, 5 of whom are professionals and environmental and 5 - roads, were offered 15 ecologically significant parameters of the motor systems that they had to rank from 1 (least important) to 15 (most significant ) the degree of their impact on the level of contamination of roadside space. The list of options was formed on the basis of the above regulations and as follows: 1 - number of lanes, pcs .; 2 - lane width, m; 3 - parting strip width, m; 4 - longitudinal slope, ‰; 5 - cross slope, ‰; 6 - the type of road surface;

7- Equality of pavement, cm / km; 8 - turnaround working life years; 9 - type surface between the road and buildings;  
 10- Type and settings of protective equipment; 11 - traffic, bus. / Day; 12 - The average speed in km / h .; 13 - composition Maynsportnoho flow; 14 - engine type; 15 - life of the vehicle's.

Prand analyzing the estimates obtained from experts, the degree of coherence of thoughts was assessed using the coefficient of concordance J. Kendall, ie zahalnohokoefitsientu rank Korelyatsiyi group consisting of  $m$  experts. For this study the number of objects ranging (environmentally significant parameters) is 15 ( $n= 15$ ), the number of rows Rankings (Expert) - 10 ( $m= 10$ ).

Concordance coefficient is calculated as follows:

$$W = \frac{12S}{m^2(n^3 - n)}, \quad (1)$$

where  $n$ - The number of alternatives (15);  $m$ - The number of experts (10);

$r_{ij}$  - rang  $i$ -nd alternatives, which assigned him  $j$ -of an expert;  $S$ - The sum of squared deviations:

$$S = \sum_{i=1}^n \left( \sum_{j=1}^m r_{ij} - S \right)^2. \quad (2)$$

$$S = \sum_{j=1}^m r_j^2 - \frac{\left( \sum_{j=1}^m r_j \right)^2}{n}. \quad (3)$$

To determine the significance of the coefficient of concordance advisable to use the criterion  $\chi$ -square (  $\chi_p^2$  ) determined by the number of degrees of freedom  $f=n-1$  and the level of confidence and probability should

bottlesand more tabular value  $\chi$ -square (  $\chi_t^2$  ) for recognition hypothesis of consistency of expert opinion [3]:

$$\chi_p^2 = m \cdot (n-1) \cdot W > \chi_t^2. \quad (4)$$

**NoiseS Research** is the identification and justification of environmentally significant parameters of man-made linear objects as an example roads, as those with the highest density, length and maximum fragment landscapes.

**Rezultaty research.** Subject to bring consistency SMMCa group of experts, the results of scoring diligence, can determine and rank the five parameters that have the greatest environmental impact. According to a survey of experts was compiled matrix ranks Experts estimate provided for each parameter, and partially processed results (Table. 1).

### 1. Arrayl rank sites ranking.

Eksperty ( $\emptyset$ )	Objects ranking (variables)														
	$r_i^1$	$r_i^2$	$r_i^3$	$r_i^4$	$r_i^5$	$r_i^6$	$r_i^7$	$r_i^8$	$r_i^9$	$r_i^{10}$	$r_i^{11}$	$r_i^{12}$	$r_i^{13}$	$r_i^{14}$	$r_i^{15}$
1	7	2	1	14	3	4	13	12	5	6	15	11	10	9	8
2	6	2	1	15	4	5	14	13	3	7	11	12	9	10	8
3	6	1	2	11	5	4	12	10	3	9	15	14	8	13	7
4	10	5	6	15	2	1	14	11	3	4	8	13	9	7	12
5	6	1	2	12	4	5	13	11	10	3	15	14	7	8	9
6	6	2	1	11	3	4	13	12	5	7	15	14	10	9	8
7	3	2	1	15	4	5	14	13	8	7	11	12	9	10	6
8	1	3	2	11	5	4	12	10	6	9	13	15	8	14	7
9	3	5	6	15	2	1	14	12	8	4	10	13	9	11	7
10	4	1	2	10	6	5	12	11	13	3	15	14	7	8	9
Cmina															
p <sub>ambiv</sub>	52	24	24	129	38	38	131	115	64	59	128	132	86	99	81

Thus, the concordance coefficient is:

$$W = \frac{12 \cdot 22476}{10^2(15^3 - 15)} = 0.8.$$

Prand the number of degrees of freedom 9 ( $f = 101 = 10$ ), quantile distribution  $\chi$ -square estimates for the expert group under study, is:

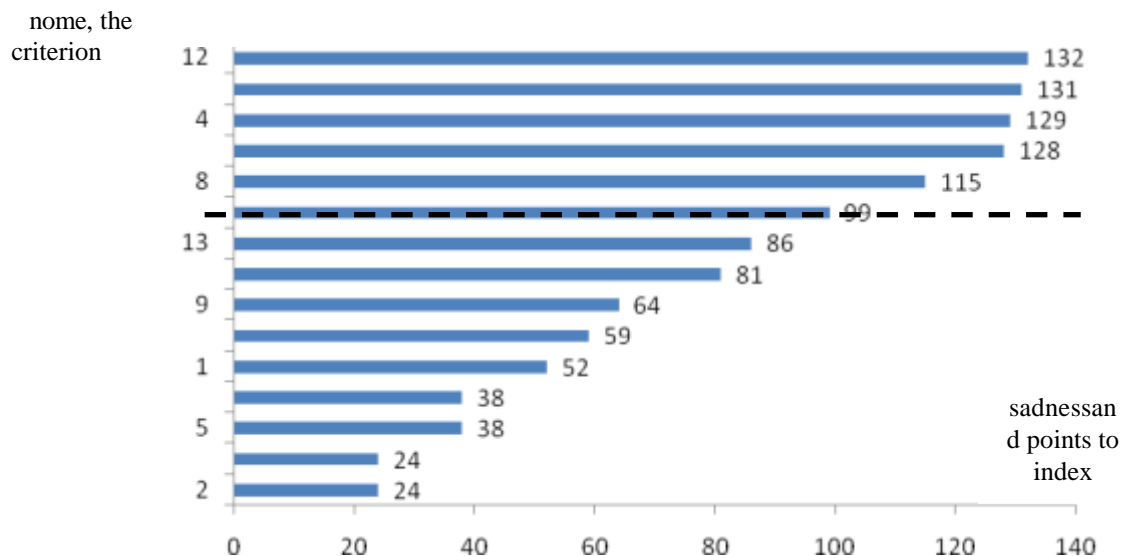
$$\chi^2 = 15 \cdot (10 - 1) \cdot 0.8 = 108.$$

Whereas, in brief criterion value for the number of degrees of freedom, which is 9, and the level of significance  $\alpha = 0.05$  is

$\chi_t = 16.9190$ ,  $\chi_p > \chi_t$  tand a hypothesis regarding the consistency of the

experts and adopted on the basis of their opinions can be divided into the 5 most environmentally significant parameters of the motor system (Fig. 1).

In the stanovleno most ecologically significant indicators in the opinion of the expert group is 4 - longitudinal slope, 7 - equality of pavement, 8 - turnaround working lives; 11 - traffic, 12 - the average speed. Equality roadway - road wear (cover) immediately takes the load off road vehicles and transfers it to the bed. However, under the influence of wheel cover deformed. With the quality of the road surface (equity) associated fuel vehicles, while improving the quality and equality spend less, and in poor condition it - above. If there are potholes and rough surface coating on the fuel consumption of 2 liters higher than the ideal or normative his condition [4].



Ric. 1. Ranking ecologically significant indicators of motor functioning.

Dorozhnye cover environmentally significant factor so that it is to a great extent affects the speed of the vehicle than the visibility condition. Reducing the average speed of the vehicle during bad weather conditions ranging from 7 to 23%, with poor quality of road coverage - up to 38% [5].

Pivnist coverage affects not only the speed of the vehicle and fuel consumption, it indirectly characterizes the amount of dust generated during the destruction of the pavement and tire abrasion while, and the number of accidents that occur due to the destruction of the road surface, ie waste, spills flammable -zmaschuvalnyh materials and more. Turnaround working lives pavement - index that characterizes the frequency of parameters and subgrade drainage, pavement and coatings, engineering structures, road equipment and improvement of roads, ie the frequency of work, contributing largely reduce the impact of road operation on the environment by providing sustainable traffic section of the road and the required operation of engineering structures [6].

Onlongitudinal slope of the road - engineering and technical parameter that characterizes the steepness ups and downs of individual sections of the road. It is defined as the ratio of the difference between project marks sites of extreme points of the distance between them and expressed as ppm [4]. The value of the longitudinal slope of the road determines the nature

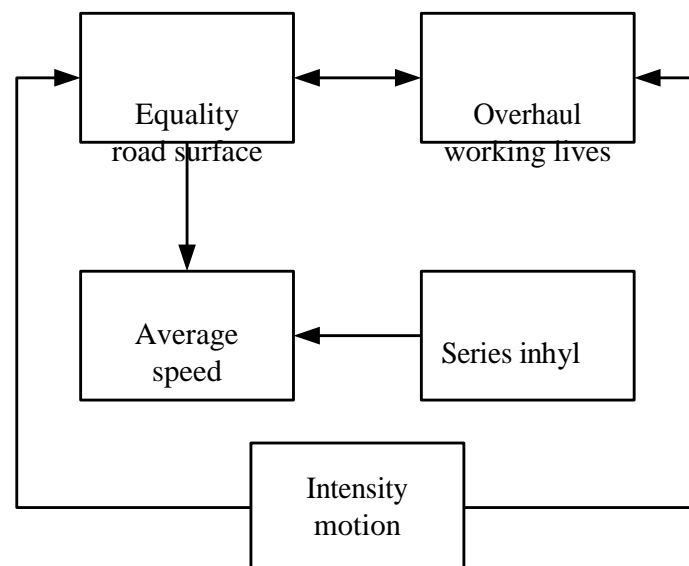
Rosesiyuvannya solid particles released into the air when the mutual friction road surface and tires of the car, and the flow rate of flush water from the surface of the roadway, and - largely - pollutant emissions and fuel consumption [1].

Andntensyvnist traffic flow - parameter which characterizes the number of vehicles passing the road section for a certain period of time. It traced a direct link between the number of vehicles and the number of pollutants generated during its motion, moreover in their number increases over the prevalence of trucks and public passenger transport in the stream. The direct relationship between the concentration of lead in roadside soils and vehicle load [7].

Average wvydkist motionin Maynsportnoho  
flowin - toMAPd

gaseous pollutants in vehicles biggest in slow motion mode, at a lower accelerating (acceleration) and a minimum at a constant speed of motion [8]. It should be appreciated that the emissions of nitrogen and unsaturated hydrocarbons directly proportional to the speed, and carbon monoxide emissions curve has a minimum at a speed of 55-65 km / h [4].

MIL five selected parameters there is a relationship in some cases reverse. So the traffic intensity affects the equality of pavement and overhaul its working lives, influencing each other. Series slope affects the average speed at which depends on the equality of the road surface (Fig. 2).



Ric. 2. Shema toZayetmozv'yazkiv mandsame  
environmentally significant couplemeters of  
transport systems.

## Conclusions

1. Youdivisible most environmentally significant elements of the road and road transport stream that is longitudinal slope, equality pavement, turnaround working lives; traffic, average speed.
2. Oharakteryzovano environmentally significant parameters in terms of their impact on environmental quality.
3. In thestanovleno toZayetmozv'yazky between environmentally fromnachymymy couplemeters of transport systems

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Youdeleny ecologicallyand Options  
Carmobyl'noy roads Categoriesand lytaraturnyx  
ystochnykov, normative-technical documentation and method  
eqspertnyh otsenok. Oharakteryzovany vzaymosvyazy Between  
vydelennymy parameters and ecologically STATUS roadside space.

**Automobile road, andvtotransportnyy  
flow,prydorozhtion Outstandingstvo,  
EcoLogical znachymye  
parametry.**

*There are highlighted an environmentally significant parameters of highways based on the analysis litaraturnih sources, technical standards*

*and method of expert estimations. There are characterized the relationship between selected parameters and the environmental condition of roadside area.*

***Highway, motor transportation streams, roadside area, environmentally significant parameters.***

UDC  
631.333.92

## **EXPERIMENTAL STUDY OF bioconversion composting poultry manure**

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Electrification of Agriculture"***

*To select and study processes manure and waste processing poultry enterprises with further improving and perfecting technological regimes conducted experimental studies to elucidate its bioconversion composting.*

***Composting, aerator mixer, clamp, rapid processing of manure, organic compost.***

**Resolutionsca problems.** Obtaining high-quality organic fertilizer from poultry manure - an important economic, ecological and economic problem. Economic solve it tends to decrease storage space areas for manure and manufactured fertilizers, improve logistics, improving soil fertility.

The costs to be reimbursed pereroblyannya litter by obtaining products with new quality indicators for the consumer with high agrotechnical value and marketing appeal. Development of new methods pereroblyannya poultry manure into organic fertilizer was also drawn to avoid

effects of harmful effects on the environment: reducing emissions of gases and odors, improve the ecological situation around birdivnytskyh systems in general.

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toiotermichnoho composting of poultry manure in Ukraine vnormovani departmental rules VNTP-04-05-APC and APC-VNTP-09-