



**SEMI-ANNUAL PROGRESS REPORT FOR THE  
IMPLEMENTATION OF ENVIRONMENTAL TERMS  
DURING THE OPERATION & MAINTENANCE  
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**SEMI-ANNUAL PROGRESS REPORT FOR THE  
IMPLEMENTATION OF ENVIRONMENTAL  
TERMS DURING THE OPERATION &  
MAINTENANCE PHASE**

**PROJECT: "DESIGN – CONSTRUCTION – FINANCING – OPERATION –  
MAINTENANCE AND EXPLOITATION OF THE PROJECT "IONIA ODOS  
MOTORWAY FROM ANTIRIO TO IOANNINA, PATHE ATHENS (METAMORFOSI  
I/C) – MALIAKOS (SKARFIA) AND PATHE CONNECTING BRANCH  
SCHIMATARI – CHALKIDA"**



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**B' SEMESTER 2011**



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**METAMORFOSSI – YLIKI**  
**(JMD 126119/08.02.2007)**



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S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
<b>A.</b>	<b>Issues of Permits/Approvals</b>	
A.1	Permits – approvals for any activity or installation required for the operation of the motorway	<p>The foreseen by the legislation permits and approvals, including the environmental permit possibly required, are obtained, when needed.</p> <p>For the implementation of any partial additional activity or expansion that is not described in the Environmental Impact Assessment (EIA) and consequently not covered by the Approval of Environmental Terms (AET) a relevant environmental permit shall be obtained by EYPE/YPEXODE.</p> <p>The requests for granting environmental permit to the ancillary works carried out by EYPE/YPEXODE regardless the category they fall, in accordance with the Joint Ministerial Decision No. 16393/2332/5.8.2002.</p>
A.2	Ancillary works	EYPE has licensed, with prot. no. 195827/31-01-2011, six (6) proposed parking areas between Km. 24 and 27 of the said section of PATHE.
A.3	Archaeological Services	<p>The term regarding the Archaeological services refers to the construction and has been complied with.</p> <p>The works performed during the reference period in the said section focused on operations of improvement, rehabilitation and widening within the existing expropriation area (there is a positive opinion of the Archaeological Service). Nevertheless, a contact will be held by the competent Departments of Antiquities, where necessary, as happened in previous reference periods.</p> <p>The proposed by EIA location for the Motorists Service Stations in Afidnes was dismissed relinquished. The final locations of the Motorists Service Stations for the section 'Metamorfossi - Yliki' are located in Kapandriti I/C and Thiva I/C, while the building of the Management is built in Varibobi. Therefore, the ecclesiastic monument is not affected and no measures are required for its protection.</p>
<b>B</b>	<b>Design-related Issues</b>	



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B.1	Environmental Impact Studies EIA	Pursuant to the environmental terms and the legislation in force, in case of minor changes or modifications of the project, as described in the Environmental Terms and the EIA, a file should be elaborated pursuant to those set in Article 13 of the JMD 11014/703/F104/14.3.2003.
B.2	Noise Barriers Special Study	<p>The specificity of the noise prevention measures has been specifically studied in accordance with the Technical Specifications (No. Pr. 57728/27-09-2001 Directorate EARTH (Air Pollution and Noise Control) -YPEHODE), approved by EYPE/YPEHODE with the relevant 143730/10-11-2009.</p> <p>This study determines, by using appropriate models and methodologies (according to JMD <b>13586/724 (03.28.2006 OGG 384)</b> and <b>European Directive 2002/49/EC</b>), the type and efficiency of the anti-noise measures (noise barriers), the technical characteristics and their adaptation to the topological characteristics of the region. Their implementation is already in the final stage.</p> <p>Detailed data on the individual noise barriers along PATHE were presented in the Annual Report 2010 of O.K.TH. (Road Traffic Noise) whereby they were determined and the representative positions of the Road Traffic Noise measurements, necessary to monitor the Road Traffic Noise temporal fluctuation.</p> <p>The Special Acoustics Study – Dimensional Barriers has already been submitted and approved by EYPE/YPEHODE (protocol no. 143730/10-11-2009) for the section of PATHE: METAMORFOSSI I/C – MALIAKOS (SKARFIA) &amp; CONNCETING BRANCH SCHIMATARI – CHALKIDA</p> <p>In the context of the said STIS that is related to the PATHE Motorway from Metamorfossi to Agios Konstantinos, noise measurements determining the accurate position of the barriers have taken place.</p>
B.3	Technical Report for the Air Pollution Stations	See B.2 for the term regarding the technical report on the air pollution stations
B.4	Special Technical Implementation Study – MSS and Exploitation &	The responsibility for construction and operation of the MSS will be assigned by the Concessionaire to Contractors. The Environmental Terms of the project shall constitute an integral part of their contractual obligations. On completion of the assignment, the Contractor of each MSS will provide the necessary STIS to



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	Maintenance Centres (EMC)	<p>fulfilling the condition regarding the Special Technical Implementation Study MSS - EMC.</p> <p>For the EMC of Kapandriti and Thiva the corresponding STIS has been prepared and officially approved by EYPE (with its letter with protocol no.: 144265/22-9-09)</p> <p>The STIS of the General Administration Building of Varibobi has been approved by EYPE with its letter with protocol no.: 196674/25-02-2011</p>
<b>C.</b>	<b>Operation issues</b>	
C.1	Visual Disturbance caused by signs	All the promotional posters (billboards) and signs have been removed from the entire length of the Concession Project.
C.2	Special Care for the protection of Antiquities - operation of EMC	Concerning the term on Special Care for the Protection of Antiquities from the operation of the EMC, the location proposed by EIA for EMC in the area of Afidnes was renounced. The locations of the EMC for "Metamorphossi – Yliki" are finalized in Kapandriti I/C and Thiva I/C and the Management building is planned in Varibobi. Therefore, the ecclesiastical monument is not affected and it is not necessary to take measures for its protection.
C.3	Pollution due to accident	<p>The Intervention Plan for Emergency Situations has been drawn up by the Concessionaire and constitutes an Annex of the Policing &amp; Fire Fighting Agreement signed with the Ministry of Interior. This plan specifies measures to timely collect and remove hazardous substances while preventing pollution of the water/soil resources, etc.</p> <p>This Intervention Plan includes all measures/required equipment etc. that will be needed in case of accident</p>



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		<p>and leakage of non-biodegradable substances, including the necessity to construct Pollution Control Units.</p> <p>There is a possibility of accidental fuel leakage from construction machinery, etc. which may result to a direct contamination of water, soil, etc. especially when the quantity is large. In this case, adsorption materials such as sand, chippings or a special geotextile will be used immediately after run out. Such materials exist in the central worksite for immediate use. Their disposal, in emergency situation, will be carried out in accordance with the instructions for disposing toxic waste.</p> <p>An overall action plan on the motorway operation has been drawn up and is currently being implemented. prepared and</p>
C.4	Control of air pollution during the operation	<p>The technical report of layout planning &amp; technical specifications of the air pollution and meteorological data stations for PATHE motorway, has been submitted for approval to EYPE (with NEA ODOS S.A. 19155/01-12-2010letter)</p> <p>EYPE/YPEKA agreed with the proposed positions and Technical Specifications of the Stations (with the protocol no.: 195241/12-01-2011 letter).</p> <p>EARTH/YPEKA approved positions and Technical Specifications (with the protocol no.: 185799/8-03-2011)</p> <p>Air Pollution stations are already installed and are in the test phase.</p> <p>The relevant report on air pollution is included in the annual environmental management report.</p>



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C.5	Noise during the operation	<p>The monitoring program OKTH OF PATHE Motorway (Metamorphossi - Skarfia) for 2010 has been submitted to the Directorate of EARTH/YPEKA with prot. No. 20448/7-2-2011. The Directorate of EARTH/YPEKA approved the Monitoring Program of Environmental OKTH 2010, with the 186058/31-3-2011 letter.</p> <p>Under this program, the relevant specifications and the locations of the Road Traffic Noise (OKTH) for the recording of the acoustic conditions before and after implementation of the noise barriers at locations inside and outside city plans and at sensitive receivers have been determined. The relevant Inventories of environmental road noise measurements are mentioned in the annual report. Also, processing of noise measurements data are shown in the reports. For the quantitative and qualitative assessment of compliance with the limits - under MD 1725291 – of the maximum allowable noise level of index L10 (18 hours) at the façades of the nearest – to PATHE - residents, extensive acoustic measurements with special auto-propelled units of statistical analysis noise are conducted. More analytically, the measurements are made in accordance with the approved noise monitoring program, by auto-propelled units, at a minimum of 2 m. from the facade of the nearest residence. Usually, in order to capture the unfavourable conditions, the measurement is being held closer to the source and to the facade the most exposed one. The program provides full examination on the effectiveness of the implemented noise barriers as well as evaluation of the need to apply additional measures.</p> <p>For the implementation of the above OKTH program, the current MD 17252/91 and the European Directive 2002/49/EC are kept, both in full calculation and evaluation of the new European indicators, Lden &amp; Lnight.</p>
C.6	MSS and EMC	<p>The responsibility for the construction and operation of the MSS will be assigned by the Concessionaire to the Contractors. The Environmental Terms of the project shall constitute an integral part of their contractual obligations.</p>





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C.7	Maintenance of Vegetation	The term which refers to the maintenance of vegetation, is met. The Concessionaire has contracted for the maintenance and management of the vegetation and the plantings with the company SPACON General Engineering Ltd. (day of signature 09.11.2009).
<b>D.</b>	<b>Construction &amp; Maintenance Issues</b>	
D.2	Water flow	The content of paragraph B.2 of the report on the compliance with the Environmental Terms during the Construction Phase is valid for the term regarding the water flow.
D.3	Temporary disposal sites	The temporary disposal sites were selected in rented land, or within limits of expropriation. These are sites where material excavation, aggregate or topsoil storage is carried out. STIS has been submitted for those areas. No temporary disposal is carried out near streams. In any case, during the suspension of the works, there is a systematic monitoring of temporary disposal sites in order to ensure compliance with the Environmental Terms.
D.4	Dust control	<p>An overall Action Plan for monitoring the Environmental Terms of the PATHE Project has been drawn up and is currently being implemented. This Plan includes protection measures for all foreseen situations in the environmental provisions.</p> <p>Inspections are conducted in the areas where construction works are executed and the respective check list is completed. Pursuant to the checks, in case of non respect of the provisions, instructions are given (corrective actions) on the conformance method. The performance of the corrective actions is checked via new inspections based on the check list.</p> <p>In particular for the dust, to date, based on the works which have already started, the following are foreseen</p>



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		<p>and implemented:</p> <ul style="list-style-type: none"> <li>• Piles of construction materials are developed only within the enclosed worksites.</li> <li>• In addition, special care has been taken into account for at least one sprinkling truck in every worksite, where dust might be released.</li> <li>• The trucks that transfer materials should not be overloaded and all trucks transferring loose materials should be covered.</li> </ul> <p>However, it has to be noted that during the reporting period (2011) the construction works on the said section have been suspended.</p>
D.6	Materials Combustion	<p>The term which refers to the Materials Combustion is met. More specifically, the subcontractor of NEA ODOS S.A. (Chr. Keridis S.A.) has a licensed waste collection and the materials are transferred for combustion or use in appropriately licensed premises or in special waste collection areas of the approved alternative management systems.</p> <p>Also, the Concession Company prepares an annual report for waste producer under JMD no. 13588/725/06, Article 11(4)(c), and pursuant to Law 2939/2001 and 3854/2010.</p>
D.7	Liquid waste	<p>A general Environmental Management Plan, which includes procedure ENV-P-01 for handling hazardous liquid waste in compliance with the respective environmental terms and the applicable legislation, has been drawn up, submitted and is being implemented. A relevant file with agreements and orders for waste collection of waste management licensed businesses has been created.</p> <p>Inspections are conducted in the areas where construction works are executed and the respective check list is completed. Pursuant to the checks, in case of non respect of the provisions, instructions are given (corrective actions) for the conformance method. The performance of corrective actions is checked via new inspections based on the check list.</p> <p>The Concession Company prepares an annual report for waste producer under JMD no. 13588/725/06, Article</p>



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		11(4)(c), and pursuant to Law 2939/2001 and 3854/2010.
D.8	Noise	For the condition relating to noise, See C5
<b>E.</b>	<b>General Issues</b>	
E.1	Obligation to comply with the Environmental Terms	The Environmental Terms of the project are met by all the competent bodies (Construction J/V, Independent Engineer/Concession, etc.)
E.2	Check on compliance with the Environmental Terms and monitoring possibility	<p>In the study phase the corresponding environmental protection reports are elaborated where discussed how the requirements of the environmental terms and legislation are incorporated and reflected in the proposed technical solution.</p> <p>In the construction phase a general Action Plan for the monitoring of Environmental Terms for the entire project of PATHE has been elaborated and is implemented. This Action Plan includes protective measures for all the stipulations of the environmental terms.</p> <p>During the operation of the Motorway, the inspection process, which is applied using the relevant Check List in all worksite areas of the PATHE motorway, has been foreseen. According to this checklist, regular inspections are carried out in order to ensure compliance with the environmental terms from which corrective or preventive measures arise.</p>



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S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
E.3	Construction and Operation Expenses for the protection of the environment	<p>The required percentage of the total budget of the operation/maintenance works that are necessary for the full compliance with the Environmental Terms and restrictions of the present JMD, has been ensured by priority.</p> <p>A detailed analysis regarding the expenses that are provided for the realization of protection works of the environment is included in the annual progress report on the compliance with the environmental terms.</p>
E.4	Concessionaire's Service for Environment	<p>The Concessionaire has created a special department for Environment, which is responsible for the control and the compliance with the Environmental Terms along the Motorway from Metamorfossi I/C to Skarfia. Also, the department collaborates with a special advisor in order to form a group of scientists, which shall cover the whole range of environment, consisted by: Civil Engineer, Biologist, Forester, Environmentalist, Topographer and Geologist, in order to fully cover the supervision needs of the Environmental Terms of the entire project.</p>
E.5	Manual for the specifications on the Environmental Terms compliance	<p>Under the relevant environmental term, a manual on compliance specifications is required, which is under elaboration as an overall action plan.</p>
E.6	Compliance with the Presidential Decree "Kifissos river Protection Zone"	<p>According to this Presidential Decree, the layout planning of any type of worksite installation, storage installation or other installation related to the construction of the project within the boundaries of Kifissos river Protection Zone and its surrounding streams as well as any type of water contamination or environment pollution is strictly prohibited.</p> <p>This requirement has been taken into account and no worksite area within this zone has been planned.</p> <p>It has to be noted that:</p> <p>Pursuant to Article 4, Paragraph 5 of Law 3555 (ratified law of the CA), the P.D. on the protection of Kifissos</p>



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		River (OGG 632D/27-6-94) cannot be implemented for the creation of the MSS, Toll Stations and EMC facilities.
E.7	Submission of annual report to EYPE	The term pursuant to which the Submission of the Annual Report to EYPE is required, is met. The annual report for 2010 has been submitted to EYPE with NEA ODOS S.A. letter no. 21568/24-3-2011
E.8	Reports Transmission to the competent bodies	The term regarding the transmission of reports to the competent bodies is met. The report is posted on the website of NEA ODOS S.A., <a href="http://www.neados.gr">www.neados.gr</a>
E.9	E.T. controllability by the competent authorities	<p>The annual and semi-annual periodic reports on compliance with the environmental terms are notified to the competent authorities for possible inspections, as set by the relevant term, and are published on the Concessionaire's website. At the same time, the person responsible on behalf of the Concessionaire facilitates any inspections to ensure compliance with these terms.</p> <p>The EIAs are in the Concessionaire's Headquarters</p>
E.10	Project Environmental Terms Validity	<p>If the environmental terms of this Joint Ministerial Decisions are amended based on new scientific and technical data in the field of environment protection or for any other reason, the Joint Venture shall lawfully comply with the new terms.</p> <p>The Environmental Terms are in force.</p>
E.11	Measures for preventing environmental implications of the EIA and AET	The measures for preventing environmental implications that are proposed in the EIA and that do not contravene this AET, are taken into account.



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**YLIKI – KASTRO**

**(JMD 36118/94/10.07.1995, JMD 101617/22.09.2006 &  
JMD 140792/12.06.2009)**



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SECTION:

YLIKI - KASTRO

**TABLE FOR THE IMPLEMENTATION OF THE ENVIRONMENTAL TERMS DURING THE OPERATION PHASE**

AET:

Prot. No. 140792/12-07-2009

Prot. No. 101617/22-09-2006

& Prot. No. 36118/94/10-07-1995

MONTH/YEAR: 07/2011

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
<b>A.</b>	<b>Permits/Approvals</b>	
A.1	Installation permits for any activity or installation required for the operation of the Motorway.	The foreseen - by the current legislation - installation permits for any activity or installation necessary for the operation of the motorway, as well as approvals - including the environmental permit required -, are obtained when needed.  It is noted that during the reporting period (2011) the construction works on the said section have been suspended.
A.2	Forest areas	No need for issuance of permit regarding the term on the Forest Areas during the operation phase. If needed in the future, it shall be met.
<b>B.</b>	<b>Design-related Issues</b>	
B.1	Exploitation & Maintenance Centres (EMC) Studies	No EMC construction in Kastro I/C is foreseen.



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<b>C.</b>	<b>Construction and Operation Issues</b>	
C.1	Infrastructure worksite	<p>Nine (9) total stations of snow removal are environmentally licensed (with the protocol no. 122399/1-4-2010 of EYPE) along the Motorway. The installed and operating stations are located in the areas of Malakassa, Schimatari, Akrefnio, Martinos and Tragana.</p> <p>The Concessionaire has signed a contract with the company “Chr. Keridis S.A.” for the motorway cleaning and waste harvesting.</p>
C.2	Traffic Noise	<p>The monitoring program OKTH OF PATHE Motorway (Metamorphossi - Skarfia) for 2010 has been submitted to the Directorate of EARTH/YPEKA with prot. No. 20448/7-2-2011. The Directorate of EARTH/YPEKA approved via the 186058/31-3-2011 letter the Monitoring Program of Environmental OKTH 2010.</p> <p>Under this program, the relevant specifications and the locations of the Road Traffic Noise (OKTH) for the recording of the acoustic conditions before and after implementation of the noise barriers at locations inside and outside city plans and at sensitive receivers have been determined. The relevant Inventories of environmental road noise measurements are mentioned in the annual report. Also, processing of noise measurements data are shown in the reports. For the quantitative and qualitative assessment of compliance with the limits - under MD 1725291 – of the maximum allowable noise level of index L10 (18 hours) at the façades of the nearest – to PATHE - residents, extensive acoustic measurements with special auto-propelled units of statistical analysis noise are conducted. More analytically the measurements are made in accordance with the approved noise monitoring program, by auto-propelled units, at a minimum of 2 m. from the facade of the nearest residence. Usually, in order to capture the unfavourable conditions, the measurement is being made closer to the source and to the most exposed facade. The program provides full examination on the effectiveness of the implemented noise barriers as well as evaluation of the need to apply additional measures.</p>





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		<p>In order for the above OKTH program to be implemented, both the current MD 17252/91 and the European Directive 2002/49/EC are kept in full calculation and evaluation of the new European indicators, Lden &amp; Lnight.</p>
<b>D.</b>	<b>Work-site Management and Maintenance Issues</b>	
D.1	Water flow protection	<p>The terms and restrictions set by the said Joint Ministerial Decision on the protection of the waters used for the irrigation of the capital area from contamination and infection are taken into account, as described in various parts of this report.</p>
D.2	Liquid waste	<p>A general Environmental Management Plan, which includes the procedure for handling liquid waste in compliance with the respective environmental terms and the applicable legislation, has been drawn up.</p> <p>The Joint Ministerial Decision 71560/3053/ Official Government Gazette 665/B/85 has been replaced by Joint Ministerial Decision 98012/2001/96 (Official Gazette 40B).</p> <p>In any case, regular checks are performed for the respect of the restriction and correct management of oils pursuant to the legislation, via inspections and questionnaire filling. The management of oils is conducted via licensed bodies, while the relevant file of acceptance documents and agreements is kept.</p>
D.3	Solid waste	<p>Recommendations, through regular inspections and check lists, are made when the rational and correct procedures for handling solid waste are not met. The immediate compliance with the stipulations of the Environmental Management Plan for the correct practice in waste management is checked. The subcontractor of Nea Odos S.A. (Chr. Keridis S.A.) disposes a permit on the collection of waste and the materials are transferred in appropriate licensed areas for combustion or for other use.</p> <p>The Concession Company prepares an annual report for waste producer under JMD no. 13588/725/06,</p>



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		Article 11(4)(c), and pursuant to Law 2939/2001 and 3854/2010.
D.4	Fire prevention	It has been ensured that, both for vehicles and project machines as well as in the worksite, the relevant fire fighting means are in good condition and available for use in emergency situations.
<b>E.</b>	<b>General Issues</b>	
E.1	Obligation to comply with the Environmental Terms	The Environmental Terms of the project are obligatorily met by all the competent bodies (Construction J/V, Independent Engineer/Concession, etc.) as set by the term on the Compliance of the Environmental Terms.
E.2	Check on compliance with the Environmental Terms and monitoring possibility	<p>A general Action Plan for the monitoring of Environmental Terms for the entire project of PATHE has been elaborated and is implemented. This Action Plan includes protective measures for all the stipulations of the environmental terms.</p> <p>More specifically, a Check List, which is provided in the Action Plan and is applied in all worksite areas of the PATHE motorway, has been completed. According to this checklist, regular inspections are carried out in order to ensure compliance with the environmental terms from which corrective or preventive measures arise.</p>
E.3	Construction and Operation Expenses for the protection of the environment	<p>The required percentage of the total budget of the motorway operation/maintenance which is necessary for the full compliance with the Environmental Terms and restrictions of the present JMD, has been ensured by priority.</p> <p>A detailed analysis regarding the expenses is included in the annual progress report on the compliance with</p>



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		the environmental terms.
E.4	Reports Transmission to the competent bodies	The term regarding the transmission of reports to the competent bodies is met. The annual report for 2010 has been submitted to EYPE with NEA ODOS S.A. letter with Protocol No. 21568/24-3-2011.
E.5	Project Environmental Terms Validity	<p>The Environmental Terms are in force.</p> <p>If the environmental terms of this Joint Ministerial Decisions are amended due to the new scientific and technical data in the field of environment protection or due to any other reason, the Joint Venture shall lawfully comply with the new terms.</p> <p>The term on the EIA is applied for the Concessionaire's offices.</p>



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**KASTRO - TRAGANA**

**(JMD 33838/94/10.07.1995, JMD 103909/12.05.2006  
and JMD 139132/30.04.2009)**



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SECTION:  
KASTRO - TRAGANA

**TABLE FOR THE IMPLEMENTATION OF THE ENVIRONMENTAL TERMS DURING THE  
OPERATION PHASE**

AET:  
TIME EXTENSION WITH  
Prot. No. 103909/12-05-2006  
AND AMENDMENT  
Prot. No. 139132/30-04-2009

MONTH/YEAR: 07/2011



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S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
<b>A.</b>	<b>Permits/Approvals</b>	
A.1	Installation permits for any activity or installation required for the operation of the Motorway	The procedures regarding the environmental permit and other permits or approvals are being followed. It is noted that during the reporting period (2011) the construction works on the said section have been suspended.
<b>B.</b>	<b>Operation Issues</b>	
B.1	MSS - Parking areas	Once the locations of the Motorists Service Stations and parking areas are finalized, the corresponding environmental term will be implemented.
B.2	Traffic Volume	A daily monitoring of traffic volumes at crossings from Tragana toll station. Appropriate facilities (loops) shall be placed in five points of this section.
B.3	Infrastructure Worksite	Nine (9) total stations of snow removal environmentally licensed (with the protocol no. 122399/1-4-2010 of EYPE) along the Motorway. The installed and operating stations are located in the areas of Malakassa, Schimatari, Akrefnio, Martinos and Tragana.  The Concessionaire has signed a contract with the company "Chr. Keridis S.A." for motorway cleaning and waste harvesting.
B.4	Traffic Noise	The monitoring program OKTH of PATHE Motorway (Metamorphossi - Skarfia) for 2010 has been submitted to the Directorate of EARTH/YPEKA with prot. No. 20448/7-2-2011. The Directorate of EARTH/YPEKA approved the Monitoring Program of Environmental OKTH 2010, with the 186058/31-3-2011 letter.  Under this program, the relevant specifications and the locations of the Road Traffic Noise (OKTH) for the recording of the acoustic conditions before and after implementation of the noise barriers at locations inside and outside city plans and at sensitive receivers have been determined. The relevant Inventories of environmental road noise measurements are mentioned in the annual report. Also, processing of noise measurements data are shown in the reports. For the quantitative and qualitative assessment of compliance with the limits - under MD 1725291 – of the maximum allowable noise level of index L10 (18 hours) at the façades of the nearest – to PATHE - residents, extensive acoustic measurements with special



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		<p>auto-propelled units of statistical analysis noise are conducted. More analytically the measurements are made in accordance with the approved noise monitoring program, by auto-propelled units, at a minimum of 2 m. from the facade of the nearest residence. Usually, in order to capture the unfavourable conditions, the measurement is being made closer to the source and the facade the most exposed one. The program provides full examination on the effectiveness of the implemented noise barriers as well as evaluation of the need to apply additional measures.</p> <p>In order for the above OKTH program to be implemented, both the current MD 17252/91 and the European Directive 2002/49/EC are kept in full calculation and evaluation of the new European indicators, Lden &amp; Lnight.</p>
B.5	Air pollution during the operation	<p>The technical report on the layout planning location and technical specifications of the air pollution and meteorological monitoring stations for PATHE motorway was submitted for approval to EYPE (with a Ref 19155/01-12-2010 document of NEA ODOS S.A.).</p> <p>EYPE/YPEKA agreed with the proposed positions and the Technical Specifications of the Stations (with the protocol no.: 195241/12-01-2011 letter).</p> <p>EARTH/YPEKA directorate approved the positions and the Technical Specifications (with the protocol no.: 185799/8-03-2011</p> <p>The Air Pollution stations are installed and they are in test phase.</p> <p>The relevant report on air pollution is attached to the annual environmental management report.</p>
B.6	Liquid Waste generated by the operation	<p>A general Environmental Management Plan, which includes procedure ENV-P-01 for handling hazardous liquid waste in compliance with the respective environmental terms and the applicable legislation, has been elaborated and submitted. A relevant file with agreements and orders for waste collection of waste management licensed businesses has been created for the subcontractors.</p> <p>Inspections are conducted in the areas where construction works are executed and the respective check list is completed. Pursuant to the checks, in case of non respect of the provisions, instructions are given (corrective actions) for the conformance method. The performance of corrective actions is checked via new inspections based on the check list.</p> <p>Furthermore, the Concession Company prepares an annual report for waste producer under JMD no. 13588/725/06, Article 11(4)(c), and pursuant to Law 2939/2001 and 3854/2010.</p>



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D.	Construction and Maintenance Issues	
D.1	Waste Management	<p>Recommendations, through regular inspections and check lists, are made when the rational and correct procedures for handling solid waste are not met. After the completion of works, the subcontractor is obliged to deliver the area of works free of waste. The term is met. More specifically, the subcontractor of Nea Odos S.A. (Chr. Keridis S.A.) collects the waste produced by the operation and maintenance of the motorway, and transfers them in appropriate collection areas of approved management licensed systems.</p> <p>Furthermore, the Concession Company prepares an annual report for waste producer under JMD no. 13588/725/06, Article 11(4)(c), and pursuant to Law 2939/2001 and 3854/2010.</p>
D.2	Materials Combustion	<p>The Environmental Terms Compliance Check List, which explicitly reports that the combustion of materials in the worksite is prohibited. Furthermore, regular inspections are carried out in order to ensure compliance with the said E.T. The subcontractor of NEA ODOS S.A. (Chr. Keridis S.A.) disposes a license on waste collection and the materials are transferred for combustion or for other use in appropriately licensed spaces.</p> <p>Furthermore, the Concession Company prepares an annual report for waste producer under JMD no. 13588/725/06, Article 11(4)(c), and pursuant to Law 2939/2001 and 3854/2010.</p>
D.3	Waters and soil protection from the maintenance	<p>The JMD 71560/3053/OGG 665/B/85 has been replaced with the JMD 98012/2001/96 (OGG 40B).</p> <p>An overall Environmental Management Plan has been prepared, where the procedure on the waste management pursuant to the environmental terms and the current legislation is included.</p> <p>Receipt documents of that kind of waste and the relevant agreements are filed.</p> <p>Furthermore, the Concession Company prepares an annual report for waste producer under JMD no. 13588/725/06, Article 11(4)(c), and pursuant to Law 2939/2001 and 3854/2010.</p>
E.	General Issues	
E.1	Obligation to comply with the Environmental Terms	<p>The Environmental Terms of the project are met by all the competent bodies (Construction J/V, Independent Engineer/Concession, etc.)</p>
E.2	Check on compliance with the Environmental Terms and	<p>The Concessionaire has taken all necessary measures to ensure compliance with the Environmental Terms and to be able to resolve and restore any unfavourable environmental situations.</p>





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	monitoring possibility	
E.3	Construction and Operation Expenses for the protection of the environment	<p>The required percentage of the total budget of the motorway operation &amp; maintenance works for the full compliance with the Environmental Terms and restrictions of the present JMD, has been ensured by priority.</p> <p>A detailed analysis regarding the expenses that are provided for the realization of protection works of the environment is included in the annual progress report on the compliance with the environmental terms.</p>
E.4	Submission of annual report to EYPE	<p>An annual or semi-annual report on progress works and on possible problems raised in regard to the environment is submitted to YPEHODE. Only maintenance and improvement works shall be executed on the said section of the road, thus the partial explanations on the content of the said reports of the specific term refer mainly to the old project.</p>
E.5	Measures for preventing implications of EIA and AET	<p>All measures for preventing environmental implications that are proposed in the EIA and that do not contravene this AET, are taken into account.</p>
E.6	Modification of the Environmental Terms to change the project Basic Characteristics	<p>A File pursuant to Article 13 of the JMD 11014/703/F104/14.3.2003 on the renewal of the Project's E.T. has been submitted, for further construction of the Parking Areas along the Motorway with J/V protocol no. 30648/29-10-2010.</p>
E.8	Modification of the current infrastructure projects	<p>In case it is necessary, the relevant procedures shall initiate.</p>
E.9	Project Environmental Terms Validity	<p>The terms are in force.</p>
E.10	Modification of the Environmental Terms	<p>If, because of evolutions on the environmental sector or for any other reason, the Environmental Terms of the present JMD are amended, the Joint Venture shall comply with the new terms under the Law.</p>
E.11	E.T. controllability by the competent authorities	<p>It is applied for the Concessionaire's offices where there is also the JMD for the renewal of the validity of AET (Protocol No. 103910/12-05-2006).</p>



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**TRAGANA - ARKITSA**

**(JMD 36795/94/10.07.1995 & JMD 103910/12.05.2006)**



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**SECTION:**

**TRAGANA - ARKITSA**

**TABLE FOR THE IMPLEMENTATION OF THE ENVIRONMENTAL TERMS DURING THE OPERATION PHASE**

**AET:**

**Protocol No. 36759/94/10-7-1995**

**& TIME EXTENSION WITH**

**Prot. No. 103910/12-05-2006**

**MONTH/YEAR: 01/2012**



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<b>A.</b>	<b>Permits / Approvals</b>	
A.1	Installation permits for any activity or installation required for the operation of the Motorway	The procedures regarding the environmental permit and other permits or approvals are being followed. It is noted that during the reporting period (2011) the construction works on the said section have been suspended.
<b>B</b>	<b>Operation-related Issues</b>	
B.1	MSS – Parking Spaces	Once the location of the Motorists Service Stations and parking areas are finalized, the corresponding environmental term will be implemented.
B.2	Traffic volume	A daily monitoring of traffic volumes at crossings from Tragana toll station. Appropriate facilities (loops) shall be placed in five points of this section.
B.3	Infrastructure Worksite	The construction of MSS has been realized in an expropriated area in Atalanti I/C which, in conjunction with the MSS of Thiva and Kapandriti, serves the entire Motorway from Metamorfossi to Agios Konstantinos.
B.4	Traffic Noise	<p>The monitoring program of the Road Traffic Noise (R.T.N.) of PATHE Motorway for 2011 has been submitted to the Directorate EARTH (Air Pollution and Noise Control) –YPEKA which approved it via its letter with protocol no. 189291/7-11-2011.</p> <p>This study determines, by using appropriate models and methodologies (according to JMD 13586/724 (28.03.2006 OGG 384) and European Directive 2002/49/EC), the type and efficiency of the anti-noise measures (noise barriers), the technical characteristics and their adaptation to the topological characteristics of the region.</p>



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		<p>Their implementation is already in the final stage.</p> <p>Details on the individual noise barriers along PATHE were presented in the Annual Report 2010 of O.K.TH. (Road Traffic Noise) whereby the representative positions of the Road Traffic Noise measurements, necessary to monitor the Road Traffic Noise temporal fluctuation, were also determined.</p> <p>The monitoring program of the Road Traffic Noise (R.T.N.) of PATHE Motorway (Metamorfossi - Skarfia) for 2010 has been submitted to EYPE/YPEHODE with protocol no. 20448/7-2-2011. EARTH/YPEKA approved the Monitoring Program of environmental OKTH 2010, with its letter with protocol no. 186058/31-3-2011.</p> <p>In the context of the said program, the relevant specifications and the Road Traffic Noise (OKTH) for the recording of the acoustic conditions before and after the implementation of the noise barriers at locations inside and outside the city plans and in sensitive receivers have been determined. The related measuring environmental road noise Reports are mentioned in the annual report. Also, processed data from the noise measurements are shown in the reports. For the quantitative and qualitative assessment of compliance with the - under MD 1725291 -maximum allowable noise level of the index L10 (18 hours) façade - closest to the PATHE - houses, extensive acoustic measurements with special self-propelled units of noise statistical analysis are made. In detail, the measurements are made, in accordance with the approved noise monitoring program, with self-propelled power plants, a minimum 2 feet from the facade of the nearest residence. Usually, in order to ensure adverse conditions, the measurement is made closer to the source and to the most exposed facade. The program provides full investigation of the effectiveness of the implemented noise barriers and evaluation of the need to apply additional measures.</p> <p>For the implementation of the above OKTH program, both the current RM 17252/91 and the European Directive 2002/49/EC are kept in full calculation and evaluation of the new European indicators, Lden &amp; Lnight.</p>
B.5	Air Pollution during the operation	<p>The technical report of layout planning &amp; technical specifications of the air pollution and meteorological data stations for PATHE motorway, has been submitted for approval to EYPE (with NEA ODOS S.A. 19155/01-12-2010letter)</p> <p>EYPE/YPEKA agreed with the proposed positions and Technical Specifications of the Stations (with the protocol no.: 195241/12-01-2011 letter).</p>



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S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
		<p>EARTH/YPEKA approved positions and Technical Specifications (with the protocol no.: 185799/8-03-2011)</p> <p>Air Pollution stations are and are in test phase.</p> <p>The relevant report on air pollution is attached to the annual environmental management report.</p>
B.6	Liquid Waste generated by the operation	<p>A general Environmental Management Plan, which includes procedure ENV-P-01 for handling hazardous liquid waste in compliance with the respective environmental terms and the applicable legislation, has been drawn up and is being implemented. A relevant file with agreements and orders for waste collection of waste management licensed businesses has been created.</p> <p>Inspections are conducted in the areas where construction works are executed and the respective check list is completed. Pursuant to the checks, in case of non respect of the provisions, instructions are given (corrective actions) for the conformance method. The performance of corrective actions is checked via new inspections based on the check list.</p> <p>The Concession Company prepares an annual report of waste producer pursuant to Article 11 (4) (c) of the JMD No. 13588/725/06, and Law 2939/2001 and 3854/2010.</p>
<b>C.</b>	<b>Construction and Maintenance issues</b>	
C.1	Coastal Environment Protection	Care will be taken so that any solid waste to be disposed under the current legislation and in case of non temporary or permanent disposal at the sea.
C.2	Waste management generated by the maintenance	<p>An overall Action Plan for monitoring the Environmental Terms of the PATHE Project has been drawn up and is currently being implemented. This Plan includes protection measures for all foreseen situations in the environmental provisions.</p> <p>More specifically, the Check List, which is foreseen in the Action Plan and implemented along PATHE, is being applied. The subcontractor of Nea Odos S.A. (Chr. Keridis S.A.) collects the waste produced by the operation and maintenance of the motorway, and transfers them in appropriate licensed collection areas of alternative management systems.</p>



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S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
C.3	Materials Combustion	<p>Regular controls are conducted in order to assure the compliance with the E.T.; no violation of the term is noticed.</p> <p>The subcontractor of Nea Odos S.A. (Chr. Keridis S.A.) collects the waste produced by the operation and maintenance of the motorway, and transfers them in appropriate collection appropriate licensed collection areas of alternative management systems.</p> <p>Also, the Concession Company prepares an annual report for waste producer under JMD no. 13588/725/06, Article 11(4)(c), and pursuant to Law 2939/2001 and 3854/2010.</p>
C.4	Waters and soil protection from the construction and maintenance	<p>An overall Environmental Management Plan has been prepared and implemented, where the procedure on the waste management pursuant to the environmental terms and the current legislation is included.</p> <p>Receipt documents of that kind of waste and the relevant agreements are filed.</p> <p>On the commencement of the works, the heads of the worksite and the subcontractor are informed; regular checks on the specific compliance, among others, are held. In cases of non or partial compliance with the term, recommendations for corrective actions are made.</p> <p>As regards the waste management, A relevant file with contracts and delivery notes of licensed operators for oil management is kept.</p> <p>The Concession Company prepares an annual report for waste producer under JMD no. 13588/725/06, Article 11(4)(c), and pursuant to Law 2939/2001 and 3854/2010.</p>
C.5	Disposal pits	<p>So far, no disposal of materials has been performed in this section. In the event there is such a need, all restrictions set by the Environmental Terms and the applicable legislation will be met.</p> <p>It is noted that the construction works on the said section during the reporting period (2011) are under suspension.</p>
C.6	Fire Prevention	<p>The term regarding the fire safety for the MSS construction in Atalanti I/C has been taken into account; it will also be implemented for the construction of the toll stations.</p>
<b>D.</b>	<b>General Issues</b>	



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S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
D.1	Obligation to comply with the Environmental Terms	The Environmental Terms of the project are met by all the competent bodies (Construction J/V, Independent Engineer/Concession, etc.)
D.2	Check on compliance with the Environmental Terms and monitoring possibility	The Concessionaire has taken all necessary measures to ensure compliance with the Environmental Terms and to be able to resolve and restore any unfavourable environmental situations.
D.3	Operation Expenses for the protection of the environment	The expenses for the protection and operation of the project are ensured by priority for the environmental protection projects, under the contractual obligations of the Concessionaire and the Construction J/V.
D.4	Submission of annual report to EYPE	A semi-annual and an annual progress report with the possible problems arising in relation to the environment are submitted to the Ministry. In this section of the road, only maintenance and optimization works will be performed. Therefore, the clarifications on the content of the reports mainly concern the old project.
D.5	Compliance with the environmental terms and the EIA proposed ones that do not contravene the AET	All measures for preventing environmental implications proposed in the EIA and not contravening this AET, are taken into account.
D.6	Environmental Terms Amendment for change of the Project's Basic Characteristics	Pursuant to Article 13 of the JMD 11014/703/F104/14.3.2003, no file elaboration or new decision of environmental terms approval is required.
D.7	Specially protected zones - areas	All appropriate protection measures set out by the Environmental Term for the specially protected zones – areas are taken.





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<b>S/N</b>	<b>ENVIRONMENTAL TERM</b>	<b>ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT</b>
D.8	Project Environmental Terms Validity	The Environmental Terms are in force.
D.9	Amendment of the Environmental Terms	If the Environmental Terms of this JMD are amended due to developments in the field of the environmental science or for any other reason, the Joint Venture shall lawfully comply with the new terms.
D.10	E.T. controllability by the competent authorities	The term for the presence of the EIA is applied to the Joint Venture's offices where the JMD of renewal of AET's effectiveness is also located (P.N. 103909/12-05-2006).



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**ARKITSA – AG. KONSTANTINOS**

**(JMD 39516/94/10.07.1995 & JMD 103908/12.05.2006)**



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SECTION:

ARKITSA – AG. KONSTANINOS

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AET:

Protocol No. 39516/94/10-7-1995

& TIME EXTENSION WITH

Prot. No. 103908/12-05-2006

MONTH/YEAR: 01/2012



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<b>A.</b>	<b>Permits / Approvals</b>	
A.1	Installation permits for any activity or installation required for the operation of the Motorway	<p>The procedures regarding the environmental permit and other permits or approvals are being followed.</p> <p>An additional environmental impact study on MSS construction, in the area of Arkitsa has been elaborated and submitted. The issue of MSS Environmental Conditions is expected in order for its construction to begin.</p> <p>It is noted that during the reporting period (2011) the construction works on the said section are under suspension.</p>
<b>B.</b>	<b>Design-related Issues</b>	
B.1	Parking Spaces	Once the location of the Motorists Service Stations and parking areas are finalized, the corresponding environmental term will be implemented.
B.2	Traffic volume	The technical specifications are under completion in order for the "pilot" program to be implemented.
B.3	Traffic Noise	<p>The monitoring program of the Road Traffic Noise (R.T.N.) of PATHE Motorway (Metamorfossi - Skarfia) for 2011 has been submitted to EARTH/YPEKA which approved its letter with protocol no. 189291/7-11-2011.</p> <p>In the context of the said program, the relevant specifications and the Road Traffic Noise (OKTH) for the recording of the acoustic conditions before and after the implementation of the noise barriers at locations inside and outside the city plans and in sensitive receivers have been determined. The related measuring environmental road noise Reports are mentioned in the annual report. Also, processed data from the noise measurements are shown in the reports. For the quantitative and qualitative assessment of compliance with the - under MD 1725291 -maximum allowable noise level of the index L10 (18 hours) façade - closest to the PATHE - houses, extensive acoustic measurements with special mobile noise measuring stations are made. In detail, the measurements are made, in accordance with the approved noise monitoring program, with mobile measuring stations at a minimum of 2 m. from the facade of the nearest residence. Usually, in order to ensure adverse conditions, the measurement is made closer to the source and to the most exposed facade. The program provides full investigation of the effectiveness of the implemented noise barriers and evaluation</p>



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		<p>of the need to apply additional measures.</p> <p>For the implementation of the above OKTH program, both the current RM 17252/91 and the European Directive 2002/49/EC are kept in full calculation and evaluation of the new European indicators, Lden &amp; Lnight.</p>
B.4	Infrastructure Worksite	<p>Nine (9) total stations of snow removal have been environmentally licensed (with the protocol no. 122399/1-4-2010 of EYPE) along the Motorway. The installed and operating stations located in the areas of Malakassa, Schimatari, Akrefnio, Martinos and Tragana.</p> <p>The Concessionaire has signed a contract with the company “Chr. Keridis S.A.” for the motorway cleaning and harvesting waste.</p>
B.5	Air Pollution during the operation	<p>The technical report of layout planning &amp; technical specifications of the air pollution and meteorological stations for PATHE motorway, has been submitted for approval to EYPE (with NEA ODOS S.A. 19155/01-12-2010 letter)</p> <p>EYPE/YPEKA agreed with the proposed positions and Technical Specifications of the Stations (with the protocol no.: 195241/12-01-2011 letter).</p> <p>EARTH/YPEKA approved positions and Technical Specifications (with the protocol no.: 185799/8-03-2011)</p> <p>Air Pollution stations are installed and are in test phase.</p> <p>The relevant air pollution report is attached the annual environmental management report.</p>
B.6	Liquid Waste generated by the operation	<p>A general Environmental Management Plan, which includes procedure ENV-P-01 for handling hazardous liquid waste in compliance with the respective environmental terms and the applicable legislation, has been elaborated and is being implemented. Also, a relevant file with agreements and orders for waste collection of waste management licensed businesses has been created.</p> <p>Inspections are conducted in the areas where construction works are executed and the respective check list is completed. Pursuant to the checks, in case of non respect of the provisions, instructions are given (corrective actions) for the conformance method. The performance of corrective actions is checked via new inspections based on the check list.</p>



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		Also, the Concession Company prepares an annual report of waste producer pursuant to Article 11 (4)(c) of the JMD 13588/725/06 and in accordance with Law 2939/2001 and 3854/2010.
<b>C.</b>	<b>Construction and Maintenance Issues</b>	
C.1	Waste management caused by the maintenance	<p>The Check List is being implemented; The Check List is foreseen in the Action Plan and is implemented along PATHE, including protection measures for all the corresponding Environmental Terms. The term is met. The Concessionaire has signed a contract with the company “Chr. Keridis S.A.” for the motorway cleaning and waste harvesting.</p> <p>Also, the Concession Company prepares an annual report of waste producer pursuant to Article 11 (4)(c) of the JMD 13588/725/06 and in accordance with Law 2939/2001 and 3854/2010.</p>
C.2	Materials Combustion	<p>The Check List is being implemented; The Check List is foreseen in the Action Plan and is implemented in all the worksites of PATHE, including protection measures for all the corresponding Environmental Terms. More specifically, the subcontractor of NEA ODOS S.A. (Chr. Keridis S.A.) collects the waste generated by the motorway operation and maintenance, and transfers them into appropriate licensed areas or in special waste collection points of the approved alternative management systems.</p> <p>Also, the Concession Company prepares an annual report of waste producer pursuant to Article 11 (4)(c) of the JMD 13588/725/06 and in accordance with Law 2939/2001 and 3854/2010.</p>
C.3	Waters and soil protection from the maintenance	An overall Environmental Management Plan has been prepared and implemented, where the procedure on the waste management pursuant to the environmental terms and the current legislation is included.
C.4	Disposal pits	<p>No disposal (temporary or permanent) of materials has been performed in the said section because so far there is no need for layout planning and licensing of such sites.</p> <p>It is noted that the reporting period (2011) the construction works on the said section are under suspension.</p>
C.5	Fire prevention	It is ensured that both vehicles and worksite are equipped with the relevant fire fighting means, in good condition and available for use.



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S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
<b>D.</b>	<b>General Issues</b>	
D.1	Obligation to comply with the Environmental Terms	The Environmental Terms of the project are met by all the competent bodies (Construction J/V, Independent Engineer/Concession, etc.)
D.2	Check on compliance with the Environmental Terms and monitoring possibility	<p>The Concessionaire has taken all necessary measures in order to ensure compliance with the Environmental Terms and to be able to resolve and restore any unfavorable environmental situations.</p> <p>A general Action Plan for the monitoring of Environmental Terms for the entire project of PATHE has been elaborated and is implemented. This Action Plan includes protective measures for all the stipulations of the environmental terms.</p> <p>More specifically, a Check List, which is provided in the Action Plan and is applied in all worksite areas of the PATHE motorway, has been completed. According to this checklist, regular inspections are carried out in order to ensure compliance with the environmental</p>
D.3	Operation Expenses for the protection of the environment	The required percentage of the total budget of the operation and maintenance needed for the total compliance of the environmental terms and restrictions of the present JMD is ensured by priority.
D.4	Submission of annual report to EYPE	A semi-annual and an annual progress report, with the possible problems arising in relation to the environment, are submitted to the Ministry. In this section of the road, only maintenance and optimization works will be performed. Therefore, the clarifications of the reports content mainly concern the old project.
D.5	Compliance with the environmental terms and the EIA proposed ones that do not contravene the AET	All the measures for preventing environmental implications that are proposed in the EIA and that do not contravene this AET, are taken into account.



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<b>S/N</b>	<b>ENVIRONMENTAL TERM</b>	<b>ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT</b>
D.6	Modification of the Environmental Terms to change the Project's Basic Characteristics	A relevant file, pursuant to Article 13 of the JMD 11014/703/F104/14.3.2003, has been elaborated for the constructions and operation of the foreseen service stations of the motorway section, i.e. the construction of frontal toll stations in Arkitsa on CH. 150+545 and lateral toll stations in Loggos on CH. 159+900 and Arkitsa I/C, has been submitted and approved by EYPE with protocol no. 146696/18-11-2009.
D.7	Project Environmental Terms Validity	The Environmental Terms are in force.
D.8	Modification of the Environmental Terms	If the Environmental Terms of this JMD are amended due to developments in the field of the environmental science or any other reason, the Joint Venture shall lawfully comply with the new terms.
D.9	E.T. controllability by the competent authorities	It is applied for the Concessionaire's offices where there is also the JMD for the renewal of the validity of AET (Protocol No. 103910/12-05-2006).





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**AG. KONSTANTINOS – K. VOURLA**

**(JMD 85676/30.07.2002)**



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SECTION:

AG. KONSTANINOS – K. VOURLA

**TABLE FOR THE IMPLEMENTATION OF THE ENVIRONMENTAL TERMS DURING THE  
OPERATION PHASE**

AET:

Protocol No. 85676/94/30-7-2002

MONTH/YEAR: 01/2012

S/N	ENVIRONMENTAL TERM	PROGRESS DESCRIPTION – PROBLEMS
<b>A.</b>	<b>Permits / Approvals</b>	
A.1	Installation permits for any activity or installation required for the operation of the Motorway	No need for licensing up to now. The corresponding environmental terms will be implemented.  It is noted that, during the reporting period (2011), the construction works on the said section are under suspension.
<b>B</b>	<b>Design-related Issues</b>	
B.1	Landscaping – Forest Technical Design	The said term is met. The Concessionaire has contracted for the maintenance and the managing of the vegetation and the plantings with SPACON Geniki Techniki S.A. (date of signature 9-11-2009)
B.2	Special Study on Noise Protection	The Concessionaire requested by the competent service the said Noise Protection Study, since it constitutes a document of the project and it should be delivered to it during the delivery of the section by the State. Pursuant to EYDE/LSPE response (protocol no. 12417/26-5-2011), the said study foresees the noise barriers construction between the positions 13+880 – 14+940 and 15+040 – 15+140. It has to be noted that the noise barriers had not been constructed before the receipt of the section by the Concessionaire, who expects the relevant order of supplementary letters for their implementation. Also, it has to be noted that the said STIS, which contains the entire technical description of the noise barriers, has not been delivered yet to the Concessionaire.
B.3	Management of emergency needs within the tunnels	The said plan has been elaborated, before the commencement of the project's operation, elaborated by PRISMA TECHNICAL ADVISORS S.A., as regards the programs of traffic settlements implemented, in combination with the Manuals on Tunnels Operation. The management programs are in accordance with article ODO – 6 of the Approved Rule on Designs & Services Fees of Law 3316/2005 and they are in accordance with the German Regulation for the equipment and operation of the toll stations RABT-2003.
B.4	STIS for ensuring air quality in tunnels	There is a functional ventilation system in each tunnels branch, under the Construction Design. Axial fans, in pairs, of constant speed and power 55KW each, with capability of automatic operation via the Fire Detection System or the increased concentration of pollutants and smoke, but also manually via the SCADA.
B.5	Tunnels Fire Protection	The cooperation with the Fire Service is kept. There have been two readiness exercises with conditions suitable to "Maximum Scale". The equipment of tunnels fire extinguishing is operational, with F 6" piping network, under constant pressure of 7 Atm and EAS every 50m in

S/N	ENVIRONMENTAL TERM	PROGRESS DESCRIPTION – PROBLEMS
		tunnels over 500m, with two faucets, and 25m hose, following the Construction Study
<b>C.</b>	<b>Operation Issues</b>	
C.1	Pollution due to accident	<p>The Intervention Plan for Emergency Situations has been drawn up by the Concessionaire and constitutes an Annex of the Policing &amp; Fire Fighting Agreement signed with the Ministry of Interior. This plan specifies measures to timely collect and remove hazardous substances while preventing pollution of the water/soil resources, etc.</p> <p>This Intervention Plan includes all measures/required equipment etc. that will be needed in case of accident and leakage of non-biodegradable substances.</p> <p>There is a possibility of accidental fuel leakage from maintenance and operation machinery, etc. which may result to a direct contamination of water, soil, etc. especially when the quantity is large. In this case, adsorption materials such as sand, chippings or a special geotextile will be used immediately after run out. Such materials exist in the central worksite for immediate use.</p> <p>For the protection of ecosystems and groundwater in the downstream areas of the road in cases of accidental cases of fuel or other contaminants leakage from passing vehicles transporting them, planned the construction of MEP 5 (Pollution Control Units) where all the tunnels wastewater end. Their disposal, in case this happens, shall be held in accordance with the disposal for the toxic waste disposal.</p> <p>Their disposal, in emergency situation, will be carried out in accordance with the instructions for disposing toxic waste.</p>
C.2	Control of air pollution during the operation	<ul style="list-style-type: none"> <li>• There are CO, NOx, and visibility sensors installed, according to the Construction Study, of continuous operation, with sufficient sensitivity.</li> <li>• The traffic in the tunnels is stopped by applying the appropriate programs of traffic regulations. They include procedures to be used by the personnel of MSS, connection with special equipment and signage (solid and electronic). No need for assessment of NOx measurements.</li> <li>• There is a functional auditory system of instructions provision through 6 radio frequency (FM) which, in accordance with the Construction Study, emit within the tunnels, and an optical system through electronic signs (LCS, VSLS), and the personnel operating MSS.</li> </ul>
C.3	Noise during the	The Road Traffic Noise monitoring program of PATHE Motorway

S/N	ENVIRONMENTAL TERM	PROGRESS DESCRIPTION – PROBLEMS
	operation	<p>(Metamorphossi - Skarfia) for 2011 has been submitted to the Directorate of EARTH/YPEKA which has been via its letter with protocol no. 189291/7-11-2011.</p> <p>Under this program, the relevant specifications and the locations of the Road Traffic Noise (OKTH) recording, for the capture of the acoustic conditions before and after implementation of the noise barriers at locations inside and outside city plans and at sensitive receivers, have been determined. The relevant Inventories of environmental road noise measurements are mentioned in the annual report. Also, processing of noise measurements data are shown in the reports. For the quantitative and qualitative assessment of compliance with the limits - under MD 1725291 – of the maximum allowable noise level of index L10 (18 hours) at the façades of the nearest – to PATHE - residents, extensive acoustic measurements with special auto-propelled units of statistical analysis noise are conducted. More analytically the measurements are made in accordance with the approved noise monitoring program, by auto-propelled units, at a minimum of 2 m. from the facade of the nearest residence. Usually, in order to capture the unfavourable conditions, the measurement is being made closer to the source and the facade the most exposed one. The program provides full examination on the effectiveness of the implemented noise barriers as well as evaluation of the need to apply additional measures.</p> <p>For the implementation of the above OKTH program, the current MD 17252/91 and the European Directive 2002/49/EC are kept, both in full calculation and evaluation of the new European indicators, Lden &amp; Lnight.</p>
C.4	Waste Management	The Concessionaire has contracted with the Company “Chr. Keridis S.A.” for the motorway cleaning and waste harvesting transferring them into appropriate licensed areas.
C.5	Emergency communications system of tunnels	There is an adequate emergency communications system, operating in the tunnels, through the “SOS” phones, at every 150m, of 3 buttons with visible illuminated signs in accordance with the Construction Study. The emergency call is answered directly by the personnel of MSS.
C.6	Ensure rescue - escape from tunnels	There are connecting tunnels, between the tunnel branches of over 500m length, for pedestrian escape every approx.350m, design that meets the requirements of paragraph 2.3 of Annex I) 2004/54/EC (500m) and paragraph 5.4.3 of the OMOE -Tunnel - projects (350m).
C.7	Tunnels electronic signage	<p>At appropriate points before the entrances of each branch, according to Construction Design, there is a special electronic warning signage, which is controlled and maintained, including:</p> <ul style="list-style-type: none"> <li>• LCS: Signs determining the traffic lanes</li> </ul>

S/N	ENVIRONMENTAL TERM	PROGRESS DESCRIPTION – PROBLEMS
		<ul style="list-style-type: none"> <li>• VSLS: Setting speed limit signs</li> <li>• VWS: Risk Signs</li> <li>• VMS: Variable Message signs (there are at the entrance of each tunnels array per branch)</li> </ul>
<b>D.</b>	<b>Maintenance Issues</b>	
D.1	Materials Combustion	<p>The term is met. The subcontractor of NEA ODOS S.A. (Ch. Keridis S.A.) collects the waste generated by the motorway operation and maintenance and transfers them into appropriate licensed sites or into special waste collection sites of the approved alternative management systems.</p> <p>Also, the Concession Company prepares an annual report of waste producer pursuant to Article 11 (4)(c) of JMD no. 13588/725/06, and in accordance with Law 2939/2001 and 3854/2010.</p>
D.2	Waste materials Management	<p>The Concessionaire has contracted with the company “Chr. Keridis S.A.” for the motorway cleaning and the waste harvesting, as mentioned in term for the Directorate of waste materials.</p> <p>Also, the Concession Company prepares an annual report of waste producer pursuant to Article 11 (4)(c) of JMD no. 13588/725/06, and in accordance with Law 2939/2001 and 3854/2010.</p>
<b>E.</b>	<b>General Issues</b>	
E.1	Obligation to comply with the Environmental Terms	The terms of the project are met by all involved bodies.
E.2	Construction and Operation Expenses for the protection of the environment	The required percentage of the total budget of the operation and maintenance needed for the total compliance of the environmental terms and restrictions of the present JMD is ensured by priority. The expenses for the environmental protection projects are given on the annual progress reports regarding the compliance with the Environmental Terms.
E.3	Change of the Project's Basic Characteristics	During the operation of the project, there are no differentiations resulted and the new decision on environmental terms approval has not been required.

S/N	ENVIRONMENTAL TERM	PROGRESS DESCRIPTION – PROBLEMS
E.4	Submission of annual report to EYPE	The term is met. The semi-annual and annual report is submitted.
E.5	E.T. controllability by the competent authorities	It is kept into the Concessionaire's headquarters.
E.6	Project Environmental Terms Validity	The Environmental Terms are in force. No need for new Environmental Terms
E.7	Measures for preventing environmental implications	All the measures for preventing environmental implications that are proposed in the EIA and that do not contravene this AET, are taken into account.