


**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  
ANTIRRIO TO IOANNINA, ATHENS PATHE (METAMORFOSSI I/C) - MALIAKOS  
(SKARFIA) AND CONNECTING BRANCH OF PATHE SCHIMATARI – CHALKIDA"**

Date	31.01.2017
Prepared	

**B' SEMESTER 2016**



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

January 2017

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**1. METAMORFOSSI – YLIKI**  
**(JMD ETA 126119/08.02.2007)**

**A' Amendment: JMD ETA 200817/23-7-2012**

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IMPLEMENTATION OF ENVIRONMENTAL TERMS DURING  
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January 2017

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
<b>A.</b>	<b>Issues of Permits/Approvals</b>	
A.1	Permits 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 DIPA/YPEN.</p> <p>The requests for granting environmental permit to the ancillary works are submitted to DIPA/YPEN according to paragraph 2, Article 7 of Law 4014/2011 regardless the category they fall, in accordance with the PEKA Ministerial Decision No. 1958/2012, as amended and in force.</p>
A.2	Ancillary Works	
A.3	Archaeological Services	<p>The term regarding the Archaeological services refers to the construction and is being complied with.</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 Malakassa (CH. 38+200), 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>	
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 6 of Law 4014/2011 (OGG 24A/2011) or/and EIS in accordance with Articles 2 and 3 of the same Law.
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</p>

		<p>the region. Upon relaunch of the construction works, their implementation has already been initiated and is expected to be completed very soon.</p> <p>Detailed data on the individual noise barriers along PATHE were presented in the Annual Report 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> <hr/> <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; CONNCTING 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 positions of the excess and the anti-noise protection measures have taken place.</p> <p>The Concessionaire prepared and submitted a Special Acoustic Design for Noise Protection with 28085/22-10-2012 Nea Odos letter and it has been approved by the EARTH with 213863/30-11-2012 letter.</p> <p>Those provided in the Special Acoustic Design for Noise Protection are not implemented due to suspension of the works on behalf of the constructor. Following Concession Agreement amendment (Law 4219/2013, OGG A' 269/11.12.2013) the final planning of Varimpompi I/C has been finalized. The said noise barriers are expected to be implemented along with the construction works.</p>
B.3	<p>Technical Report for the Air Pollution Stations</p>	<p>Air pollution measuring stations have been installed and operate in the area of Varimpompi and Schimatari (Prot. No. 185799/8-3-2011 EARTH). The stations operate in a 24-hour basis and the prices of the below pollutants and parameters are recorded:</p> <p>a) The pollutants NO<sub>2</sub>, SO<sub>2</sub>, O<sub>3</sub>, TSP, PM<sub>10</sub>, PM<sub>2,5</sub>, BTEX (C<sub>6</sub>H<sub>6</sub>), C<sub>7</sub>H<sub>8</sub> and xylene</p> <p>b) The meteorological conditions of each installation area</p> <p>The Concessionaire submitted a Technical Report on location and technical specifications for the installation of additional meteorological monitoring stations (prot. no. 25982/19-03-2012), beyond those conventionally required, for environmental permitting. For the purposes of this report, DIPA had not issued the relevant decision.</p>
B.4	<p>Special Technical Implementation Study – MSS and Exploitation &amp; Maintenance Centres (EMC)</p>	<p>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. When the granting procedure is completed, the Contractor of all MSS will submit the required additional EIS to comply with this condition.</p>

		<p>For the EMC of Kapandriti and Thiva the corresponding STIS has been prepared and appropriately approved by EYPE (with its letter with protocol no.: 144265/22-9-09).</p> <p>Furthermore, the Concessionaire submitted for "Metamorfossi – Yliki" section of PATHE TEPEM for the licensing of the police building relocation from Kapandriti TCC (CH. 29+000) at Afidnes (CH. 26+200) (Prot. no. 40270/03.11.2015) which has been approved by DIPA/YPAPEN (prot. no. 153346/15-12-2015).</p> <p>The Concessionaire, with prot. no. 37074/03-10-2014, submitted the modification file for the re-installation of the snow-removal station of Varimpompi into a new position, north-west of Varimpompi junction (on CH. 23+400 new NR mileage and within the expropriation limits of the Concession Project).</p>
<b>C.</b>	<b>Operation-related Issues</b>	
C.1	Visual Disturbance caused by signs	All the promotional posters (billboards) and signs located within the concession limits have been removed. There are regular inspections throughout the length of PATHE, and the billboards-signs are removed where identified within the limit of the expropriation.
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 Varimpompi. 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 and leakage of non-biodegradable substances, including the necessity to construct Pollution Control Units.</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. 19155/01-12-2010 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>For 2015, a complete monitoring program on air pollution has been prepared based on the three air pollution stations placed on Varimpompi, Schimatari, Arkitsa (Prot. No.: 185799/8-3-2011 EARTH) and operate 24 hours a day (prot. no. 185799/8-3-2011 EARTH). The air pollution report has been submitted to the Directorate of KAPA/YPEN with prot. no. 40727/28.01.2016. A relevant program has been implemented and expected to be submitted to the Directorate of KAPA/YPEN.</p> <p>Following 2015 recordings of the installed stations and according to the relevant report that has been elaborated, there was no exceedance of air pollution limits resulting from the motorway traffic.</p>
C.5	Noise during the operation	<p>The monitoring program OKTH OF PATHE Motorway (Metamorphossi - Skarfia) for 2016 has been submitted to the Directorate of KAPA/YPEN. The Directorate of KAPA/YPEN approved the Monitoring Program of Environmental OKTH 2016, with its letter no. 46381-14-10-2016.</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 unfavorable 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> <p>A similar program for 2017 is being implemented, which is expected to be submitted to KAPA/YPEN for approval.</p> <p>Additionally, a daily monitoring of the traffic flow in the section of PATHE from Metamorfossi to Skarfia is being carried out, at crossings level by all toll stations (Afidnes, Kapandriti, Malakassa, Inofyta, Thiva and Tragana) and submit monthly reports. For 2016, the annual average daily traffic estimated is 19.773 (24.979 ATA) transits in</p>

		both directions in the section of Metamorphossi - Skarfia of PATHE.
C.6	MSS and EMC	The responsibility for the construction and operation of the existing MSS has been assigned by the TEO to the Contractors. The Environmental Terms of the project shall constitute an integral part of their contractual obligations.
C.7	Maintenance of Vegetation	The term which refers to the maintenance of vegetation, is adhered. The Concessionaire has contracted for the maintenance and management of the vegetation and the plantings with the Subcontractor.
<b>D.</b>	<b>Construction &amp; Maintenance Issues</b>	
D.1	Water flow	During the reference period, the concession company realized culvert and wells cleaning works. The Concession Company's teams carry out inspections and controls in the motorway culverts and trenches and proceed to the necessary cleaning and maintenance works, when necessary. The content of paragraph E.2 of the report on the compliance with the Environmental Terms is valid for the term regarding the water flow.
D.2	Temporary disposal sites	It refers to the construction phase
D.3	Dust control	It refers to the construction phase
D.4	Materials Combustion	Regular controls to ensure compliance of the said ET are conducted and there is no breach of the term. 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.  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. For 2015, a table for waste producer was prepared and submitted to the competent Service (prot. no. 40987/23.03.2016) while a similar table has been drawn up and submitted for 2016.
D.5	Liquid Waste	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



		<p>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 11(4) (c), and pursuant to Law 2939/2001 and 3854/2010. For 2015, a table for waste producer was prepared and submitted to the competent Service (prot. no.: 40987/23-03-2016), while a similar table has been drawn up and submitted for 2016.</p>
D.6	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 adhered by the construction J/V, the Independent Engineer, the Concessionaire, the subcontractors and their consultants.
E.2	Check on compliance with the Environmental Terms and monitoring possibility	An overall Action Plan is being implemented for all the stipulations of the environmental terms. 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 may arise.
E.3	Construction and Operation Expenses for the protection of the environment	The Concessionaire ensures by priority 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. 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.
E.4	Concessionaire' s Service for	

	Environment	<p>The Concessionaire disposes a special department for Environment equipped with qualified personnel, which is responsible for the control and the compliance with the Environmental Terms along the Motorway from Metamorfossi I/C to Skarfia. Also, it collaborates with a special advisor in order to form a group of scientists, which shall cover the whole range of environment. The group of scientists consists of a Dr. Civil Engineer, MSc Forester, Environmentalist – Ecologist, MSc Topographer – Environmentalist, Geologist – Environmentalist and Agronomist - Environmentalist, in order to fully cover the supervision needs of the Environmental Terms of the entire project.</p> <p>Under the relevant environmental term, a manual on compliance specifications is required, which is under elaboration as an overall action plan.</p>
E.5	Manual for the specifications on the Environmental Terms compliance	An overall action plan has been elaborated and implemented, while Nea Odos S.A. Concession company disposes a certified Environmental Management System ISO-14001 by the independent body "Bureau Veritas".
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. 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: Pursuant to Article 4, Paragraph 5 of Law 3555 (ratified law of the CA), the P.D. on the protection of Kifissos River (OGG 632D/27-6-94) cannot be implemented for the creation of the MSS, Toll Stations and EMC facilities.</p>
E.7	Submission of annual report to EYPE	The term pursuant to which the Submission of the Annual Report to EYPE is required, is adhered. The annual and 2 <sup>nd</sup> semiannual reports for 2016 have been submitted to EYDE/KESPK&DE with Nea Odos S.A. prot. no. 40861/19-02-2016). Also, Nea Odos S.A., with prot no. 1506/07-09-2016, submitted the 1 <sup>st</sup> environmental report to EYDE/KESPK&DE.
E.8	Reports transmission to the competent bodies	The term regarding the transmission of reports to the competent bodies is adhered. The report is posted on the website of NEA ODOS S.A., <a href="http://www.neaodos.gr">www.neaodos.gr</a>
E.9	E.T. controllability by the competent authorities	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.
		The EIAs are in the Concessionaire's Headquarters
E.10	Project Environmental Terms Validity	<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>A Renewal AEPO File for PATHE section "Metamorfossi – Yliki" with prot. no. 41729/24-10-2016 has been submitted by the Concessionaire. The file was submitted within the time period foreseen in paragraph 4 of Article 5, Law 4014/2011, thus the existing AEPO remains 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.

## **2. YLIKI - KASTRO**

**(JMD ETA 36118/94/10.07.1995, JMD 101617/22.09.2006 &**

**A' Amendment: JMD ETA 101617/22.09.2006 &**

**B' Amendment: JMD ETA 140792/12.06.2009)**

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS: WAYS – METHODS OF ASSESSMENT
<b>A.</b>	<b>Issues of Permits/Approvals</b>	
A.1	Permits for any activity or installation required for the operation of the motorway	<p>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.</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 DIPA/YPEN.</p> <p>The requests for granting environmental permit to the ancillary works are submitted to DIPA/YPEN according to paragraph 2, Article 7 of Law 4014/2011 regardless the category they fall, in accordance with the PEKA Ministerial Decision No. 1958/2012, as amended and in force.</p>
A.2	Forest areas	No need for issuance of permit regarding the term on the Forest Areas. If needed in the future, it shall be adhered.
<b>B.</b>	<b>Design-related Issues</b>	
B.1	Exploitation & Maintenance Centres (EMC) Studies	No EMC construction in Kastro I/C is foreseen.
<b>C.</b>	<b>Construction and Operation Issues</b>	
C.1	Worksite Infrastructure	<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 subcontractor for the motorway cleaning and waste harvesting.</p>
C.2	Traffic Noise	<p>The monitoring program OKTH OF PATHE Motorway (Metamorphossi - Skarfia) for 2016 has been submitted to the Directorate of KAPA/YPEN. The Directorate of KAPA/YPEN approved, via the 46381/14-10-2016 letter, the Monitoring Program of Environmental OKTH 2016.</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</p>

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS: WAYS – METHODS OF ASSESSMENT
		<p>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> <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> <p>The program for 2017 is going to be implemented; its completion is expected to be submitted to the Directorate of KAPA/YPEN for approval.</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>Also, the concession company draws up an annual report for waste producer under paragraph 4 (c) of article 11 of JMD no. 13588/725/06, and pursuant to Law 2939/2001 and 3854/2010. For 2015 a respective table of waste producer was drafted and submitted to the competent Service (prot. no.40987/23-02-2016) while a similar table has been drafted and submitted at the end of 2016.</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>

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS: WAYS – METHODS OF ASSESSMENT
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. 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, Article 11(4)(c), and pursuant to Law 2939/2001 and 3854/2010.</p> <p>For 2015, a table for waste producer was prepared and submitted to the competent service (prot. no.: 40987/23.03.2016) while a similar table has been drafted and submitted for 2016.</p>
D.4	Fire prevention	<p>It has been ensured that, both for vehicles and project machines as well as in the worksite, the relevant firefighting means are in good condition and available for use in emergency situations.</p>
<b>E.</b>	<b>General Issues</b>	
E.1	Obligation to comply with the Environmental Terms	<p>The Environmental Terms of the project are obligatorily adhered by the Construction J/V, the Independent Engineer, the Concessionaire, the subcontractors and their consultants)</p>
E.2	Check on compliance with the Environmental Terms and monitoring possibility	<p>The Concessionaire has taken all necessary measures in order for the compliance with the ET to be ensured and for unacceptable environmental situations to be restored.</p> <p>An overall 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> <p>Furthermore, the Concessionaire cooperates with a special advisor in order for a group of scientists to be formulated, which shall cover the whole range of environment. The group of scientists consists of a Dr. Civil Engineer, MSc Forester, Environmentalist – Ecologist, MSc Architect Environmentalist, MSc Topographer – Environmentalist, Geologist – Environmentalist and Agronomist - Environmentalist, in order to fully cover the supervision needs of the Environmental Terms of the entire project.</p> <p>Finally, it should be noted that Nea Odos S.A. Concession Company disposes a certified Environmental Management System ISO-14001, by</p>

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS: WAYS – METHODS OF ASSESSMENT
		the independent body Bureau Veritas.
E.3	Operation Expenses for the protection of the environment	<p>The Concessionaire ensures by priority the required percentage of the total budget of the motorway which is necessary for the full compliance with the Environmental Terms and restrictions of the present JMD.</p> <p>A detailed analysis regarding the expenses is included in the annual progress report on the compliance with the environmental terms.</p>
E.4	Reports Transmission to the competent bodies	<p>The term is adhered. The annual and 2<sup>nd</sup> semiannual reports for 2015 have been submitted to EYPE via NEA ODOS S.A. 40861/19-02-2016 letter to EYDE/KESPK&amp;DE while the 1<sup>st</sup> semiannual report of 2016 was submitted to EYDE/KESPK&amp;DE with prot. no. 41506/07-09-2016 Nea Odos S.A. letter.</p>
E.5	Project Environmental Terms Validity	<p>A Renewal AEPO File for PATHE section "Yliki - Kastro" with prot. no. 41729/24-10-2016 has been submitted by the Concessionaire. The file was submitted within the time period foreseen in paragraph 4 of Article 5, Law 4014/2011, thus the existing AEPO remains in force. 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>
E.6	E.T. controllability by the competent authorities	<p>The EIS and their approval as well as the environmental licensing of the adjacent works are located at the Concessionaire's headquarters. Digital copies of the respective permits are located at the regional maintenance and operation motorway centers.</p>



### **3. KASTRO - TRAGANA**

**(JMD ETA 33838/94/10.07.1995,**

**A' Amendment: JMD ETA 103909/12.05.2006**

**B' Amendment: JMD ETA 139132/30.04.2009)**

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS: WAYS – METHODS OF ASSESSMENT
<b>A.</b>	<b>Permit/Approval Issues</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>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 DIPA/YPEN.</p> <p>The requests for granting environmental permit to the ancillary works are submitted to DIPA/YPEN according to paragraph 2, Article 7 of Law 4014/2011 regardless the category they fall, in accordance with the PEKA Ministerial Decision No. 1958/2012, as amended and in force.</p>
<b>B.</b>	<b>Operation Issues</b>	
B.1	MSS - Parking areas	<p>For the Motorists Service Station at the proposed location of the EIA a file amending EYPE (DIPA no, 173067/5-6-2014 see paragraph A.1) was submitted. The amendment file was approved by DIPA with prot. no. 145495/21.01.2015 only as regards the parking areas and the location and layout of the MSS position surfaces, while the drafting of an EIS was required for the construction and operation of buildings and other MSS functions. The EIS for Martino MSS was submitted to the Service with Nea Odos S.A. letter no. 39579/26.05.2015.</p> <p>However, following the "Concession Agreement Addendum Amendment Agreement", signed on 29/09/2016, a two-sided MSS is planned in CH. 138+000 (Atalanti MSS), while the construction of MSS in CH. 118+600 (direction to Lamia) and 118+900 (direction to Lamia) (Martino MSS) is canceled.</p>
B.2	Traffic Volume	<p>Daily monitoring of traffic volumes in PATHE section from Metamorfossi to Skarfia, at crossings from all the toll stations (Afidnes, Kapandriti, Malakassa, Inofyta, Thiva and Tragana) is carried out and monthly reports are submitted. For 2016, the Annual Average Daily Traffic was 19.773 (24.979) transits for both directions in Metamorfossi – Skarfia section of PATHE.</p>
B.3	Worksite Infrastructure	<p>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.</p> <p>The Concessionaire has signed a contract with the subcontractor for motorway cleaning and waste harvesting.</p>
B.4	Traffic Noise	<p>The monitoring program OKTH of PATHE Motorway (Metamorphossi - Skarfia) for 2016 has been submitted to the Directorate of KAPA/YPEN. The Directorate of KAPA/YPEN approved the Monitoring Program of Environmental OKTH 2016, with the 46381/14-10-2016 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.</p> <p>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 -</p>

		<p>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 unfavorable 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> <p>A relevant program is going to be implemented for 2017; it is expected to be submitted to KAPA/YPEN for approval.</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>For 2015, a complete monitoring program on air pollution is being implemented based on three air pollution stations placed on Varibobi, Schimatari, Arkitsa (Prot. No.: 185799/8-3-2011 EARTH) which operate 24 hours a day. The air pollution report has been submitted to the Directorate of KAPA/YPEN with prot. no. 40727/28.01.2016. A relevant program has been implemented and expected to be submitted to the Directorate of KAPA/YPEN.</p> <p>Based on the recordings for 2015 of the installed stations and pursuant to the relevant report already drafted, there has been no excess of limits of the air pollution waste arising from the motorway traffic.</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. For 2015, a table for waste producer has been submitted to the competent service (prot. no. 40987/23-03-2016), while a similar waste producer table is going to be drafted for 2016.</p>
<b>D.</b>	<b>Construction and Maintenance Issues</b>	

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 adhered. Furthermore, the subcontractor of Nea Odos 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. For 2015, a table for waste producer has been drafted and submitted to the competent service (prot. no. 40987/23-03-2016), while a similar table has been drafted and is expected to be submitted for 2016.</p>
D.2	Material Combustion	<p>Regular inspections are carried out in order to ensure compliance with the said E.T. Furthermore, the subcontractor of NEA ODOS S.A. disposes a license on waste collection and the materials are transferred for combustion or for other use in appropriately licensed spaces. 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. For 2015, a table for waste producer has been submitted to the competent service (prot. no. 40987/23-03-2016), while a similar table has been drawn up and is expected to be submitted for 2016.</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. For 2014, a table for waste producer has been submitted to the competent service (prot. no. 40987/23-03-2016), while as similar table has been drafted and is expected to be submitted for 2016.</p>
<b>E.</b>	<b>General Issues</b>	
E.1	Obligation to comply with the Environmental Terms	<p>The Environmental Terms of the project are adhered by the Construction J/V, the Independent Engineer, the Concessionaire, the subcontractors and its consultants.</p>
E.2	Check on compliance with the Environmental Terms and monitoring possibility	<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> <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, 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> <p>Furthermore, the Concessionaire collaborates with a special advisor in order to form a group of scientists, which shall cover the whole range</p>

		<p>of environment. The group of scientists consists of a Dr. Civil Engineer, MSc Forester, Environmentalist – Ecologist, MSc Topographer – Environmentalist, Geologist – Environmentalist and Agronomist - Environmentalist, in order to fully cover the supervision needs of the Environmental Terms of the entire project.</p> <p>Finally, it should be noted that Nea Odos S.A. Concession Company disposes a certified Environmental Management System ISO-14001, by the independent body Bureau Veritas.</p>
E.3	Construction and Operation Expenses for the protection of the environment	<p>The Concessionaire ensures by priority the required percentage of the total budget for the full compliance with the Environmental Terms and restrictions of the present JMD.</p> <p>The expenses that are provided for the realization of protection works of the environment are included in the annual progress report on the compliance with the environmental terms.</p>
E.4	Submission of annual report to EYPE	<p>The term is respected. An annual or semi-annual report on progress works and on possible problems raised in regard to the environment is submitted to YPEHODE.</p> <p>A semiannual report and an annual one are submitted. The annual and 2<sup>nd</sup> semiannual reports for 2015 have been submitted to EYPE via NEA ODOS S.A. letter with protocol no. 40861/19-02-2016 to EYDE/KESPK&amp;DE, while the 1<sup>st</sup> semiannual report of 2016 has been submitted to EYDE/KESPK&amp;DE with Nea Odos S.A. prot. no. 41506/07-09-2016.</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	Amendment of the Environmental Terms to change the project Basic Characteristics	<p>The EIS for Martino MSS submitted to the Service with Nea Odos S.A. prot. no. 39579/26-05-2015. However, following the signing of the "Concession Agreement Appendix Amendment Agreement" from 29-09-2016, the construction of the MSS Martino was canceled, no new POs for the construction of MSS in the Martino area are now required.</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>A Renewal AEPO File for PATHE section "Kastro – Tragana" with prot. no. 41729/24-10-2016 has been submitted by the Concessionaire. The file was submitted within the time period foreseen in paragraph 4 of Article 5, Law 4014/2011, thus the existing AEPO remains in force.</p>
E.10	Amendment of the Environmental Terms	<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>
E.11	E.T. controllability by the competent authorities	<p>The EIS and their approval as well as the environmental licensing of the adjacent works are located at the Concessionaire's headquarters. Digital copies of the respective permits are located at the regional maintenance and operation motorway centers.</p>

## **4. TRAGANA - ARKITSA**

**(JMD ETA 36795/94/10.07.1995**

**A' Amendment JMD ETA 103910/12.05.2006)**

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	<p>The procedures regarding the environmental permit and other permits or approvals are being followed.</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 DIPAYPEN.</p> <p>The requests for granting environmental permit to the ancillary works are submitted to DIPAYPEN according to paragraph 2, Article 7 of Law 4014/2011 regardless the category they fall, in accordance with the PEKA Ministerial Decision No. 1958/2012, as amended and in force.</p> <p>Also, the Concessionaire has submitted (prot. No. 39707/22.06.15) the environmental impact study for the construction of Atalanti I/C and Livanates I/C lateral toll stations of Tragana - Arkitsa section of PATHE motorway.</p> <p>Furthermore, the "Concession Agreement Appendix Amendment Agreement" was signed, based on which the construction of the two-sided MSS at CH. 138+000 (Atalanti MSS) is planned.</p>
<b>B.</b>	<b>Operation-related Issues</b>	
B.1	MSS – Parking Spaces	<p>The "Concession Agreement Appendix Amendment Agreement" was signed on 29.09.2016 under which the construction of the two-sided MSS at CH. 138+000 (Atalanti MSS) is planned. Following those aforementioned, the concession company with prot. no. 41586/30-09-2016 submitted an ETA Renewal &amp; Amendment File for PATHE section "Tragana – Arkitsa", for the environmental licensing of Atalanti MSS.</p>
B.2	Traffic volume	<p>A daily monitoring of traffic volumes in PATHE section from Metamorfossi to Skarfia, as regards the crossings from all toll stations (Afidnes, Kapandriti, Malakassa, Inofyta, Thiva and Tragana) should be carried out and monthly reports are submitted. For 2016, the Annual Average Daily Traffic is 19.773 (24.979 ADT) transits for both directions in PATHE Metamorfossi – Skarfia section.</p>
B.3	Worksite Infrastructure	<p>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.</p> <p>A total of 9 snow-removal stations throughout PATHE have been environmentally licensed (with prot. no. 122399/1-4-2010 of EYPE). The installed and operational stations are located in the areas of Malakassa, Schimatari, Akraifnio, Martino and Tragana.</p>
B.4	Traffic Noise	<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 210474 (204/B/9-2-2012 OGG) 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. 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 OKTH OF PATHE Motorway (Metamorphossi - Skarfia) for 2016 has been submitted to the Directorate of KAPA/YPEN. The Directorate of KAPA/YPEN approved the Monitoring Program of Environmental OKTH 2016, with its 46381/14-10-2016 letter.</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. 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> <p>A similar program for 2017 is going to be implemented, which is expected to be submitted to KAPA/YPEN for approval.</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. 19155/01-12-2010 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). EARTH/YPEKA approved positions and Technical Specifications (with the protocol no.: 185799/8-03-2011). The stations operate in a 24-hour basis and the prices of the below pollutants and parameters are recorded:</p> <p>a) The pollutants NO<sub>2</sub>, SO<sub>2</sub>, O<sub>3</sub>, TSP, PM<sub>10</sub>, PM<sub>2.5</sub>, - BTEX (C<sub>6</sub>H<sub>6</sub>), C<sub>7</sub>H<sub>8</sub> and xylene</p> <p>b) The meteorological conditions of each installation are recorded</p> <p>The Concessionaire submitted a Technical Report on location and technical specifications for the installation of additional meteorological monitoring stations (prot. no. 25982/19-03-2012), beyond those conventionally required, for environmental permitting. Until the drafting of the</p>



		<p>present, no relevant decision had been issued by EYPE.</p> <p>For 2015, a complete monitoring program on air pollution has been prepared based on the three air pollution stations placed on Varimpompi, Schimatari, Arkitsa (Prot. No.: 185799/8-3-2011 EARTH) are installed and operate 24 hours a day (prot. no. 185799/8-3-2011 EARTH). The air pollution report has been submitted to the Directorate of KAPA/YPEN with prot. no. 4072/28.01.2016. A similar program for 2016 has been drafted and is expected to be submitted to the Directorate of KAPA/YPEN.</p> <p>Based on the recordings for 2015 of the installed stations and pursuant to the relevant report already drafted, there has been no excess of limits of the air pollution waste arising from the motorway traffic.</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. A table of waste producer has been prepared and submitted to the competent service for 2015 (prot. no. 40987/23.03.2016), while a similar table is going to be drafted and expected to be submitted for 2016.</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. collects the waste produced by the operation and maintenance of the motorway, and transfers them in appropriate licensed collection areas of alternative management systems. For 2015, a table for waste producer was prepared and submitted to the competent service (prot. no.: 40987/23-03-2016), while as similar table is going to be drafted and expected to be submitted for 2016.</p>
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>Moreover, the subcontractor of Nea Odos 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>

		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. For 2015, a table for waste producer was prepared and submitted to the competent service (prot. no.: 40987/23-03-2016), while a similar table has been drafted and expected to be submitted for 2016.
C.4	Waters and soil protection from the construction and maintenance	<p>An overall Environmental Management Plan has been prepared and submitted, where the procedure on the dangerous liquid waste management pursuant to the environmental terms and the current legislation is included. Furthermore, a relevant file with contracts and receipt documents of that kind of waste, of licensed operators for oil management is kept.</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. For 2015, a table for waste producer was prepared and submitted to the competent service (prot. no.: 40987/23-03-2016), while a similar table has been drafted and expected to be submitted for 2016.</p>
C.5	Disposal pits	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 adhered.
C.6	Fire Prevention	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 and the Atalanti MSS.
<b>D.</b>	<b>General Issues</b>	
D.1	Obligation to comply with the Environmental Terms	The Environmental Terms of the project are adhered by the Construction J/V, the Independent Engineer, the Concessionaire, the subcontractors and their consultants etc.)
D.2	Check on compliance with the Environmental Terms and monitoring possibility	<p>The Concessionaire and the construction J/V have taken all necessary measures to ensure compliance with the Environmental Terms and to be able to resolve and restore any unfavourable environmental situations.</p> <p>An overall 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> <p>Furthermore, the Concessionaire cooperates with a special advisor in order for a group of scientists to be formulated, which shall cover the whole range of environment. The group of scientists consists of a Dr. Civil Engineer, MSc Forester, Environmentalist – Ecologist, MSc Architect Environmentalist, MSc Topographer – Environmentalist, Geologist – Environmentalist and Agronomist - Environmentalist, in order to fully cover the supervision needs of the Environmental Terms of the entire project.</p> <p>Finally, Nea Odos SA Concession Company disposes a certified Environmental Management System ISO-14001, by the independent body Bureau Veritas.</p>

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	<p>A semi-annual and an annual progress report with the possible problems arising in relation to the environment are submitted to EYPE/KESPK&amp;DE. 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.</p> <p>The term is adhered. The semi-annual and annual reports are submitted. The annual and the 2<sup>nd</sup> semi-annual reports for 2015 have been submitted to EYPE via NEA ODOS S.A. letter with prot. no. 40861/19.02.2016 to EYDE/KESPK&amp;DE, while the 1<sup>st</sup> semi-annual report for 2016 was submitted to EYDE/KESPK&amp;DE with Nea Odos SA letter no. 41506/07-09-2016.</p>
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	<p>A file no. EYPE 173067/5-6-2014 amending the environmental terms of the section Athens (Metamorfossi I/C) – Maliakos (Skarfia) of PATHE has been submitted for the environmental licensing of 10 parking areas and 2 location areas of the MSSs in Martino (direction Athens and direction Lamia). The amendment file was approved by DIPA with prot. no. 145495/21.01.2015 only as regards parking areas, and the location and layout of the surfaces of the MSS positions, while the EIS submission was required for the construction and operation of buildings and other MSS operations.</p> <p>Furthermore, the concession company has submitted an AET Renewal &amp; Amendment file for PATHE section "Tragana – Arkitsa" with prot. no. 41586/30-09-2016, for the environmental licensing of Atalanti MSS.</p>
D.7	Specially protected zones - areas	All appropriate protection measures are taken.
D.8	Project Environmental Terms Validity	A Renewal & Amendment AEPO File for PATHE section "Tragana – Arkitsa" with prot. no. 41586/30-09-2016 has been submitted by the Concessionaire. The file was submitted within the time period foreseen in paragraph 4 of Article 5, Law 4014/2011, thus the existing AEPO remains in force.
D.9	Amendment of the Environmental Terms	The Concession Company has submitted an AET Renewal & Amendment File for PATHE section "Tragana – Arkitsa" with prot. no. 41586/30-09-2016 for the environmental licensing of Atalanti MSS.
D.10	E.T. controllability by the competent authorities	<p>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).</p> <p>All the environmental permits of the adjacent works are located at the Concessionaire's headquarters, while digital copies of the respective permits are located at the regional maintenance and operation motorway centers.</p>

## **5. ARKITSA – AGIOS KONSTANTINOS**

**JMD ETA 39516/94/10.07.1995**

**A' Amendment: JMD ETA 103908/12.05.2006**

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	<p>The procedures regarding the environmental permit and other permits or approvals are being followed.</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 DIPA/YPEN.</p> <p>The requests for granting environmental permit to the ancillary works are submitted to DIPA/YPEN according to paragraph 2, Article 7 of Law 4014/2011 regardless the category they fall, in accordance with the PEKA Ministerial Decision No. 1958/2012, as amended and in force.</p>
<b>B.</b>	<b>Operation-related Issues</b>	
B.1	Parking spaces	<p>The environmental permitting of Arkitsa MSS is completed (DIPA prot. No. 145538/21.01.2015). For those as provided for in the MSS study has taken care and the way of operation is described in detail. All requirements for the parking areas approved and under-construction have been foreseen. Attention has been paid in access and use of services by disabled persons.</p>
B.2	Schedule for the recording and the development of microflora	<p>The technical specifications are under completion in order for the "pilot" program to be implemented.</p>
B.3	Traffic Noise	<p>The monitoring program of the Road Traffic Noise (R.T.N.) of PATHE Motorway (Metamorfossi - Skarfia) for 2015 has been submitted to KAPA/YPEN. The KAPA/YPEN Directorate approved the 2016 OKTH Environmental Monitoring Program via its letter with protocol no. 46381/14-10-2016.</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 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>

		A similar program for 2017 is going to be implemented and will be submitted to the Directorate of KAPA/YPEN for approval.
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. The Concessionaire has signed a contract with the Subcontractor 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). EARTH/YPEKA approved positions and Technical Specifications (with the protocol no.: 185799/8-03-2011). The stations operate in a 24-hour basis and the prices of the below pollutants and parameters are recorded:</p> <p>a) The pollutants CO, NO<sub>2</sub>, SO<sub>2</sub>, O<sub>3</sub>, TSP, PM<sub>10</sub>, PM<sub>2.5</sub>, BTEX (C<sub>6</sub>H<sub>6</sub>), C<sub>7</sub>H<sub>8</sub> and xylene</p> <p>b) The meteorological conditions of each installation area</p> <p>The Concessionaire submitted a Technical Report on location and technical specifications for the installation of additional meteorological monitoring stations (prot. no. 25982/19-03-2012), beyond those conventionally required, for environmental permitting.</p> <p>For 2015, a complete monitoring program on air pollution is under preparation, three air pollution stations placed on Varibobi, Schimatari, Arkitsa (Prot. No.: 185799/8-3-2011 EARTH) are installed and operate 24 hours a day. The air pollution report has been submitted to the Directorate of KAPA/YPEN with prot. no. 40727/28.01.2016. A relevant program has been implemented for 2016 and expected to be submitted to the Directorate of KAPA/YPEN.</p> <p>Based on the recordings for 2015 of the installed stations and pursuant to the relevant report already drafted, there has been no excess of limits of the air pollution waste arising from the motorway traffic.</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> <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. For 2015, a table for waste producer was drafted and submitted to the competent service (prot. no. 40987/23-03-2016), while as similar table has been drafted and expected to be submitted for 2016.</p>

<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 adhered. The Concessionaire has signed a contract with the Subcontractor 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. For 2015, a table for waste producer was drafted and submitted to the competent service (prot. no. 40987/23-03-2016), while as similar table has been drafted and expected to be submitted for 2016.</p>
C.2	Materials Combustion	<p>Regular controls are conducted in order to assure the compliance with the E.T.; no violation of the term is noticed. Furthermore, the Subcontractor of Nea Odos 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>The Concession Company also 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. For 2015, a table for waste producer was drafted and submitted to the competent service (prot. no. 40987/23-03-2016), while as similar table has been drafted and expected to be submitted for 2016.</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	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.
C.5	Fire prevention	It is ensured that both vehicles and worksite are equipped with the relevant firefighting means, in good condition and available for use.
<b>D.</b>	<b>General Issues</b>	
D.1	Obligation to comply with the Environmental Terms	The Environmental Terms of the project are adhered by the Construction J/V, the Independent Engineer, the Concessionaire, the subcontractors and their consultants)
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 terms.</p>

		Also, the concessionaire cooperates with a special advisor in order for a group of scientists to be formulated, which shall cover the whole range of environment. The group of scientists consists of a Dr. Civil Engineer, MSc Forester, Environmentalist – Ecologist, MSc Architect Environmentalist, MSc Topographer – Environmentalist, Geologist – Environmentalist and Agronomist - Environmentalist, in order to fully cover the supervision needs of the Environmental Terms of the entire project.
D.3	Operation Expenses for the protection of the environment	The EURO IONIA construction J/V and the Concessionaire ensure by priority 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. The expenses for the environmental protection projects are given on the annual progress reports regarding the compliance with the Environmental Terms.  Finally, it should be noted that Nea Odos SA Concession Company disposes a certified Environmental Management System ISO-14001, by the independent body Bureau Veritas.
D.4	Submission of annual report to EYPE	An annual and semiannual progress report, with the possible problems arising in relation to the environment, is submitted to EYDE. 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.  The semi-annual and annual reports are submitted. The annual and the 2 <sup>nd</sup> semiannual reports for 2015 have been submitted to EYPE via NEA ODOS S.A. letter with protocol no.: 40861/19-02-2016 to EYDE/KESPK&DE, while the 1 <sup>st</sup> semiannual report of 2016 was submitted to EYDE/KESPK&DE with Nea Odos S.A. letter no. 41506/07-09-2016.
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.
D.6	Amendment of the Environmental Terms to change the Project's Basic Characteristics	There is no change of the Project's Basic Characteristics
D.7	Project Environmental Terms Validity	A Renewal AEPO File for PATHE section "Arkitsa – Ag. Konstantinos" with prot. no. 41729/24-10-2016 has been submitted by the Concessionaire. The file was submitted within the time period foreseen in paragraph 4 of Article 5, Law 4014/2011, thus the existing AEPO remains in force.
D.8	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 any other reason, the Company shall lawfully comply with the new terms.





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D.9	E.T. controllability by the competent authorities	It is applied for the Concessionaire's offices where the Environmental Studies of the project as well as the approved Environmental Terms along with their amendments and renewals are located.
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## **6. AGIOS KONSTANTINOS – K. VOURLA**

**JMD ETO: 85676/30-07-2002**

**A' Amendment: JMD ETA 126386/4-06-2004**

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	No need for licensing up to now. The corresponding environmental terms will be implemented.
<b>B.</b>	<b>Design-related Issues</b>	
B.1	Landscaping – Forest Technical Design	The said term is adhered. The Concessionaire has contracted for the maintenance and the managing of the vegetation and the plantings with the Subcontractor.
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. The latter, under the OKTH program, has elaborated and submitted a Special Acoustic Design (EAMYE) via Nea Odos letter with prot. no. 28085/22-10-12 and approved by EARTH with prot. no. 213863/30-11-2012. The noise barriers provided in EAMYE for the CH. 171+316 – 171+360 and 178+604 – 178+881 are expected to be implemented by the Greek State.
B.3	Management of emergency needs within the tunnels	The said plan has been awarded by the competent Service of the State to PRISMA TECHNICAL ADVISORS S.A. and has been elaborated, before the commencement of the project's operation, as regards the programs of traffic settlements implemented. As for the operation of the section from the Concessionaire, it constitutes annex of the Tunnels Operation Manuals. 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. A readiness exercise has been realized with conditions suitable to "Maximum Scale" on 10/4/2014 (the previous had been realized on 3/3/2010). The equipment of tunnels fire extinguishing is operational, with F 6" piping network, under constant pressure of 7 Atm and EAS every 50m in tunnels over 500m, with two faucets, and 25m hose, following the Construction Study

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS: WAYS – METHODS OF ASSESSMENT
<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. Also, five (5) PCU (Pollution Control Units) which collect the runoff of the road tunnels and the C&amp;C of the section both during the normal operation and in case of accident.</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. Their disposal, in emergency situation, will be carried out in accordance with the instructions for disposing toxic waste.</p> <p>The project has been delivered by the Greek State to the Concessionaire for its operation, having constructed only five holding and separation tanks of the road run-outs. The Greek State is expected to construct the remaining two tanks as soon as possible.</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> <p>EYPE/YPEKA agreed with the suggested positions and the Technical Specifications of the Stations (with letter No. 195241/12-01-2011). EARTH/YPEKA Directorate approved the positions and the Technical Specifications (with prot. No. 185799/8-03-3011).</p> <p>The stations operate in a 24-hour basis and the prices of the below pollutants and parameters are recorded:</p>

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS: WAYS – METHODS OF ASSESSMENT
		<p>a) The pollutants CO, NO<sub>2</sub>, SO<sub>2</sub>, O<sub>3</sub>, TSP, PM<sub>10</sub>, PM<sub>2.5</sub>, BTEX (C<sub>6</sub>H<sub>6</sub>), C<sub>7</sub>H<sub>8</sub> and xylene</p> <p>b) The meteorological conditions of each installation area</p> <p>The Concessionaire submitted a Technical Report on location and technical specifications for the installation of additional meteorological monitoring stations (prot. no. 25982/19-03-2012), beyond those conventionally required, for environmental permitting.</p> <p>For 2015, a complete monitoring program on air pollution has been elaborated based on three air pollution stations that has been installed on Varibobi, Schimatari, Arkitsa (Prot. No.: 185799/8-3-2011 EARTH) and operate 24 hours a day. The air pollution report has been submitted to the Directorate of KAPA/YPEN with prot. no. 40727/28.01.2016. A similar program has been drafted for 2016 and expected to be submitted to the Directorate od KAPA/YPEN.</p> <p>Based on the recordings for 2015 of the installed stations and pursuant to the relevant report already drafted, there has been no excess of limits of the air pollution waste arising from the motorway traffic.</p>
C.3	Noise during the operation	<p>The Road Traffic Noise monitoring program of PATHE Motorway (Metamorphossi - Skarfia) for 2016 has been submitted to the Directorate of KAPA/YPEN. The KAPA/YPEN Directorate approved the 2016 OKTH Environmental Monitoring Program via its letter with protocol no. 46381/14-10-2016.</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> <p>A similar program is going to be implemented for 2017; it is expected to be submitted to KAPA/YPEN for approval.</p>
C.4	Waste Management	<p>The Concessionaire has contracted with the Subcontractor for the motorway cleaning and waste harvesting transferring them into appropriate licensed areas.</p> <p>Furthermore, the Concession Company prepares an annual report of waste producer pursuant to Article 11 (4)(c) of JMD no. 13588/725/06, and in</p>

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS: WAYS – METHODS OF ASSESSMENT
		accordance with Law 2939/2001 and 3854/2010. For 2015, a table for waste producer has been submitted to the competent service (prot. no. 40987/23.03.2016), while a similar table has been drafted and submitted for 2016.
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> <li>• VLS: 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>Regular controls are conducted in order to assure the compliance with the E.T.; no violation of the term is noticed. Furthermore, the subcontractor of NEA ODOS 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. For 2015, a table for waste producer has been submitted to the competent service (prot. no. 40987/23.03.2016), while a similar table has been drafted and expected to be submitted for 2016.</p>
D.2	Waste materials Management	<p>The Concessionaire has contracted with the Subcontractor 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. For 2015, a table for waste producer has been submitted to the competent service (prot. no. 40987/23.03.2016), while a similar table has been drafted and expected to be submitted for 2016.</p>
<b>E.</b>	<b>General Issues</b>	

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS: WAYS – METHODS OF ASSESSMENT
E.1	Obligation to comply with the Environmental Terms	<p>The terms of the project are adhered by the Construction J/V, the Independent Engineer, the Concessionaire, the subcontractors and their consultants.</p> <p>The EIS and their approval as well as the environmental licensing of the adjacent works are located at the Concessionaire’s headquarters. Digital copies of the respective permits are located at the regional maintenance and operation motorway centers.</p>
E.2	Construction and Operation Expenses for the protection of the environment	<p>The Concessionaire ensures by priority 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.</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.3.	Check on compliance with the Environmental Terms and monitoring possibility	<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> <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, 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> <p>Furthermore, the Concessionaire collaborates with a special advisor in order to form a group of scientists, which shall cover the whole range of environment. The group of scientists consists of a Dr. Civil Engineer, MSc Forester, Environmentalist – Ecologist, MSc Topographer – Environmentalist, Geologist – Environmentalist and Agronomist - Environmentalist, in order to fully cover the supervision needs of the Environmental Terms of the entire project.</p> <p>Finally, it should be noted that Nea Odos S.A. Concession Company disposes a certified Environmental Management System ISO-14001, by the independent body Bureau Veritas.</p>
E.4	Change of the Project’s Basic Characteristics	<p>During the operation of the project, there are no differentiations resulted and the new decision on environmental terms approval has not been required. If such need arises, it will be adhered.</p>
E.5	Submission of	<p>The term is adhered. A semi-annual and annual report is submitted. The annual and 2<sup>nd</sup> semi-annual reports for 2015 are submitted to</p>



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<b>S/N</b>	<b>ENVIRONMENTAL TERM</b>	<b>ENVIRONMENTAL TERMS: WAYS – METHODS OF ASSESSMENT</b>
	annual report to EYPE	EYDE/KESPK&DE with prot. no. 40861/19-02-2016 with Nea Odos S.A. letter, while the 1 <sup>st</sup> semiannual report of 2016 was submitted to EYDE/KESPK&DE with Nea Odos S.A. letter no. 41506/07-09-2016.
E.6	E.T. controllability by the competent authorities	The JMD 85676/30-7-2002 as well as the EIA are kept into the Concessionaire’s headquarters and are available to control by the competent services.
E.7	Project Environmental Terms Validity	The Concessionaire has deposited an AEPO renewal file for the section of PATHE “Agios Konstantinos - K. Vourla” with prot. no. 28107/24.10.2012. The dossier was submitted within the period provided for in paragraph 4 of Article 5 of Law 4014/2011, thereby retaining the existing AEPO (decision to grant approval for the environmental terms).  No need for new Environmental Terms
E.8	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.



## **7. KAMENA VOURLA - MENDENITSA**

**JMD ETA 67031/19-10-1998**

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	No need for licensing up to now. The corresponding environmental terms will be implemented.
<b>B.</b>	<b>Operation Issues</b>	
B.1	Plantings	The term which refers to the maintenance of vegetation, is adhered. The Concessionaire has contracted for the maintenance and management of the vegetation and the plantings with a Subcontractor.
B.2	Noise	<p>The monitoring program OKTH of PATHE Motorway (Metamorphossi - Skarfia) for 2016 has been submitted to the Directorate of KAPA/YPEN. The Directorate of KAPA/YPEN approved, via the 46381/14-10-2016 letter, the Monitoring Program of Environmental OKTH 2016.</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. 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> <p>A respective program for 2016 is being implemented and expected to be submitted to the Directorate of KAPA/YPEN for approval.</p>
B.3	Waste Management	The Concessionaire has contracted with the Subcontractor for the motorway cleaning and waste harvesting transferring them into appropriate licensed areas.
<b>C.</b>	<b>Maintenance</b>	

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS: WAYS - METHODS OF ASSESSMENT
	<b>Issues</b>	
C.1	Materials Combustion	<p>The term is adhered. The subcontractor of NEA ODOS 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>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. For 2015, a table for waste producer has been drafted and submitted to the competent service (prot. no. 40987/23.03.2016), while a similar table has been drafted and expected to be submitted for 2016.</p>
C.2	Waste materials Management	<p>The Concessionaire has contracted with the Subcontractor for the motorway cleaning and the waste harvesting, as mentioned in term for the Directorate of waste materials.</p> <p>The Concession Company also 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. For 2015, a table for waste producer has been submitted to the competent service (prot. no. 40987/23.03.2016), while a similar table has been drafted and expected to be submitted for 2016.</p>
<b>D.</b>	<b>General Issues</b>	
D.1	Obligation to comply with the Environmental Terms	<p>The environmental terms of the project are adhered by the construction J/V, the Independent Engineer, the Concessionaire, the subcontractors and their consultants.</p>
D.2	Check on compliance with the Environmental Terms and monitoring possibility	<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> <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, 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> <p>Furthermore, the Concessionaire collaborates with a special advisor in order to form a group of scientists, which shall cover the whole range of environment. The group of scientists consists of a Dr. Civil Engineer, MSc Forester, Environmentalist – Ecologist, MSc Topographer – Environmentalist, Geologist – Environmentalist and Agronomist - Environmentalist, in order to fully cover the supervision needs of the</p>

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS: WAYS - METHODS OF ASSESSMENT
		<p>Environmental Terms of the entire project.</p> <p>Finally, it should be noted that Nea Odos S.A. Concession Company disposes a certified Environmental Management System ISO-14001, by the independent body Bureau Veritas.</p>
D.3	Construction and Operation Expenses for the protection of the environment	The Concessionaire ensures by priority the required percentage of the total budget needed for the total compliance of the environmental terms and restrictions of the present JMD. A detailed analysis on expenses for the environmental protection in relation to the total budget of the project is given on the annual progress report concerning the compliance with the Environmental Terms.
D.4	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. If such need arises, it will be adhered.
D.5	Submission of annual report to EYPE	The term is adhered. The semi-annual and annual reports are submitted. The annual and 2 <sup>nd</sup> semiannual reports for 2015 are submitted via Nea Odos S.A. letter with prot. no. 40861/19.02.2016 to EYDE/KESPK&DE, while the 1 <sup>st</sup> semiannual report of 2016 was submitted to EYDE/KESPK&DE with Nea Odos S.A. letter no. 41506/07-09-2016.
D.6	E.T. controllability by the competent authorities	The approved ETs as well as the accompanying EIS are kept into the Concessionaire's headquarters are at the disposal of the competent services for audit.
D.7	Project Environmental Terms Validity	The terms are in renewal process. The study on the E.T. renewal of this section has been elaborated and submitted to EYDE/KESPK&DE (prot. no. 30440/17.06.2013).
D.8	ET amendment	No need for new Environmental Terms

## **8. Agrinio Bypass**

**JMD 84982/11.04.1997**

**A' Amendment: JMD ETA 105886/03-07-2008**

**B' Amendment: JMD ETA 144713/23-09-2009**

**C'Amendment: MD ETA 100391/20-01-2016**

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
<b>A.</b>	<b>Issues of Permits/Approvals</b>	
A.1	Permits for any activity or installation required for the operation of the motorway	<p>The foreseen by the current 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 DIPA/YPEN.</p> <p>The requests for granting environmental permit to the ancillary works are submitted to DIPA/YPEN in accordance with paragraph 2, Article 7, Law 4014/2011 regardless the category they fall, in accordance with the PEKA Ministerial Decision No. 1958/2012, as amended and in force.</p> <p>Following letter no. 1000391/20.01.16, the Environmental Terms Amendment of section Agrinio bypass of Ionia Odos has been adopted.</p>
A.2	Ancillary Works	
A.3	Archaeological Services	No need for issuance of permit during the operation phase. If needed in the future, it shall be adhered.
A.4	Forest areas	No need for issuance of permit during the operation phase. If needed in the future, it shall be adhered.
<b>B.</b>	<b>Design-related Issues</b>	
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 is being elaborated pursuant to those set in Article 6 of Law 4014/2011 (OGG 24A/2011) or/and EIS in accordance with Articles 2 and 3 of the same Law.

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
B.2	Noise Barriers Special Study	<p>Regarding the operating department of IONIA ODOS motorway "Agrinio bypass", sound measurements were made within and outside the approved city plans and settlements in the area of 200 meters from the boundary line of the road on the above road section. Three different geographical locations 24-hour sound measurements deemed absolutely adequate for the continuous monitoring of acoustic environment on an annual basis were approached in total.</p> <p>So, a total of 3 out of 24hrs acoustic measurements (27 July 2016) were conducted and the results of which showed that there is no excess noise from the road traffic and the implementation of anti-noise measures is not required.</p>
<b>C.</b>	<b>Operation-related Issues</b>	
C.1	Motorway cleaning	<p>The Concessionaire has signed a contract with the Subcontractor for the cleaning and harvesting waste from the motorway. Waste containers have been placed at all locations and regular waste collection is being carried out by the subcontractor. During the said period no bucket theft, nor overfilling, was observed. All parking spaces and the motorway are clean.</p>
C.2	Noise during the operation	<p>The monitoring program OKTH of Ionia Odos Motorway (Agrinio bypass) for 2016 has been submitted to the Directorate of KAPA/YPEN. The Directorate of KAPA/YPEN approved the Monitoring Program of Environmental OKTH 2016, with its 46381/14-10-2016 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 unfavorable 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. 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> <p>A similar program for 2017 is going to be implemented, which is expected to be submitted to the Directorate of KAPA/YPEN for approval.</p>

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
C.3	Maintenance of Vegetation	The term which refers to the maintenance of vegetation, is adhered. The Concessionaire has contracted for the maintenance and management of vegetation and plantings with the Subcontractor. During the current period whenever required by program, cutting grass, pruning, weeding were required. The image of vegetation along the entire length of the bypass was in all autopsies, absolutely satisfactory, both on the slopes and the islet. The good maintenance of vegetation, which, besides contributing to the growth of plants, also gives a very good image to the motorway users at all times.
<b>D.</b>	<b>Construction &amp; Maintenance Issues</b>	
D.1	Water flow	This term refers to the construction.  The maintenance and the operation of the said section will fall within the concession company competencies and, therefore, these terms need to be verified.  No malfunction of drains or ditches and floods was observed.
D.2	Temporary disposal sites	This term refers to the construction.  The maintenance and the operation of the said section will fall within the concession company competencies and, therefore, these terms need to be verified.
D.3	Dust control	On the Motorway, light maintenance works are carried out, such as planting, replacement of barriers, etc., which do not result in dust concentrations
D.4	Solid waste	The term is adhered. More specifically, the subcontractor of Nea Odos 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.  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. For 2015, a table for waste producer has been prepared and submitted to the competent service (prot. no.: 40987/23.03.2016), while a similar table has been drafted and expected to be submitted for 2016.



S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
D.5	Material combustion	<p>The term is adhered. More specifically, the subcontractor of Nea Odos 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>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. For 2015, a table for waste producer has been prepared and submitted to the competent service (prot. no.: 40987/23.03.2016), while a similar table has been drafted and expected to be submitted for 2016.</p>
D.6	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 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>Also, 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. For 2015, a table of waste producer has been prepared and submitted to the competent service (prot. no.: 40987/23-03-2016), while a similar table has been drafted and expected to be submitted for 2016.</p>
D.7	Noise	<p>The machines and vehicles used for the maintenance and operation of the motorway meet all the requirements and certifications of EU type concerning noise.</p>
D.8	Use of quarry materials	<p>This term refers to the construction; no works requiring the use of aggregate materials are executed in this section</p>
D.9	Worksite Infrastructure	<p>This term refers to the construction.</p>
D.10	PUOs	<p>This term refers to the construction and has been adhered.</p>

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
D.11	Trenches - embankments	This term refers to the construction and has been adhered.
D.12	Fauna	This term refers to the construction and has been adhered.
D.13	Planting	<p>This term refers to the construction of the Motorway.</p> <p>As part of the responsibilities of the concession company for this section, only the maintenance and operation shall be included and therefore these conditions shall be controlled.</p>
D.14	Fire prevention	As regards the sites used for the operation and construction of the motorway section, the relevant firefighting means are in good condition and available for use in emergency situations.
E.	<b>General Issues</b>	
E.1	Obligation to comply with the Environmental Terms	The Environmental Terms of the project are obligatorily adhered by the Construction J/V, the Independent Engineer, the Concessionaire, the subcontractors and their consultants
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>During the operation of the Motorway, a general Action Plan for the monitoring of Environmental Terms, through the inspection process, which is applied using the relevant Check List, has been elaborated and is implemented. According to this checklist, regular inspections are carried out in order to ensure compliance with the environmental terms from which corrective or preventive measures may arise.</p> <p>Finally, it should be noted that Nea Odos SA concession company disposes a certified Environmental Management System ISO-14001, by the independent body Bureau Veritas.</p>
E.3	Operation Expenses	The required percentage of the total budget of the operation/maintenance works that are necessary for the full compliance with the

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
	for the protection of the environment	Environmental Terms and restrictions of the present JMD, has been ensured by priority. 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.
E.4	Concessionaire' s Service for Environment	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.
E.5	E.T. controllability by the competent authorities	<p>The term is adhered. The annual and 2<sup>nd</sup> semiannual reports have been submitted. The annual and 2<sup>nd</sup> semi-annual reports for 2015 have been submitted to EYDE/KESPK&amp;DE with Nea Odos S.A. prot. no. 40861/19.02.2016), while the 1<sup>st</sup> semiannual report of 2016 was submitted to EYDE/KESPK&amp;DE with Nea Odos S.A. prot. no. 41506/07-09-2016.</p> <p>The EIAs/TEPEM are in the Concessionaire's Headquarters</p>
E.6	Project Environmental Terms Validity	<p>If, because of the new data of science and technology in the field of environmental protection or for any other reason, the Environmental Terms of this JMD are amended, the company will comply with the new conditions under the law.</p> <p>The Concessionaire has deposited an AEPO renewal file for the section of IONIA ODOS "Agrinio bypass" with prot. no. 40247/27-10-2015. The dossier was submitted within the period provided for in paragraph 4 of Article 5 of Law 4014/2011, thereby retaining the existing AEPO (decision to grant approval for the environmental terms).</p> <p>Following letter no. 1000391/20.01.16, the "Environmental Terms Amendment" of Agrinio bypass, Ionia Odos has been adopted.</p>
E.7	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.

## **9. Arta - Filippiada Bypass**

**JMD 120756/96/03.06.199,**

**A' Amendment: JMD ETA 132550/31.07.2003**

**B' Amendment: JMD 137938/31.12.2003**

**C' Amendment and Extension: JMD 175041/23.09.2014**

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 legislation permits and approvals, including the environmental permit required, are obtained, when needed. Joint Ministerial Decision 120756/96/03.06.1997 A' Amendment: JMD 132550/31.07.2003 B' Amendment: Joint Ministerial Decision 137938/31.12.2003 C' amendment and extension EPO no. 175041/23.09.2014.
A.2	Ancillary works	The lateral toll stations in Arta I/C and the improvement of the parking space of 142+250 as accompanying projects during the operational phase were constructed during the reporting period and are licensed with the C' amending decision.
A.3	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 adhered.
A.4	Archaeological Services	No need for issuance of permit during the operation phase. If needed in the future, it shall be adhered.
<b>B.</b>	<b>Design-related Issues</b>	
B.1	Environmental Impact Studies EIA	The environmentally licensed project is the one resulting from the JMD no, 120756/3-6-1997 and the integration of the amendments resulting from the following JMD 132550/31-07-2003, JMD 137938/31-12-2003 & JMD oik. 142631/30-06-2009 and the Amendment and Extension of EPO no. 175041/23.09.2014.  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 6 of Law 4014/2011 (OGG 24A/2011) or/and EIS in accordance with Articles 2 and 3 of the same Law.
<b>C.</b>	<b>Construction and Operation-related Issues</b>	

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
C.1	Motorway cleaning	<p>The Concessionaire has signed a contract with the Subcontractor for the cleaning and harvesting waste from the motorway. Waste containers have been placed at Arta – Filippiada I/C (left-side, right-side), in order for the areas to be kept clean.</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. For 2015, a table for waste producer has been prepared and submitted to the competent service (prot. no.: 40987/23-03-2016), while a similar table has been drafted and expected to be submitted for 2016.</p>
C.2	Maintenance of Vegetation	<p>The term which refers to the maintenance of vegetation, is adhered. The Concessionaire has contracted for the maintenance and management of the vegetation and the plantings with the J/V of GEK Services – SPACON.</p>
<b>D.</b>	<b>Issues related to Construction Site Management and Maintenance</b>	
D.1	Noise	<p>Machinery and vehicles used for the maintenance and operation of the motorway meet all specifications and certificates of EU type of noise.</p> <p>The monitoring program OKTH of Ionia Odos Motorway (Arta bypass) for 2016 has been submitted to the Directorate of KAPA/YPEN. The Directorate of KAPA/YPEN approved the Monitoring Program of Environmental OKTH 2016, with its 46381/14-10-2016 letter.</p> <p>Regarding the operating department of IONIA ODOS motorway “Agrinio bypass”, sound measurements were made within and outside the approved city plans and settlements in the area of 200 meters from the boundary line of the road on the above road section. Three different geographical locations 24-hour sound measurements deemed absolutely adequate for the continuous monitoring of acoustic environment on an annual basis were approached in total.</p> <p>So, a total of 3 out of 24hrs acoustic measurements (27 July 2016) were conducted and the results of which showed that there is no excess noise from the road traffic and the implementation of anti-noise measures is not required.</p> <p>A similar program for 2017 is going to be implemented and is going to be submitted to EARTH/YPEN for approval.</p>
D.2	PUOs	<p>This term relates to the construction of the Motorway.</p>

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
D.3	Water flow	This term relates to the construction of the Motorway.
D.4	Temporary disposals	<p>This term relates to the construction of the Motorway.</p> <p>As part of the concession company's responsibilities for this section, only maintenance and operation shall be included. Therefore, culverts and ditched built shall be cleaned, when required.</p> <p>During the reference period no malfunctions of ditches and drains nor floods were observed</p>
D.5	Worksite Infrastructure	<p>This term relates to the construction of the Motorway.</p> <p>The subcontractor, responsible for the operation, disposes has an office space, a car park and warehouses, at Ag. Anargyroi Artas.</p>
D.6	Liquid waste	<p>The Concession Company also 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> <p>For 2015, a table for waste producer has been prepared and submitted to the competent service (prot. no.:40987/23-03-2016), while a similar table has been drafted and expected to be submitted for 2016.</p> <p>The JMD 71560/3053/OGG 665/B/85 has been replaced by the JMD 98012/001/96 (OGG 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 document and agreement acceptance is kept.</p>
D.7	Dust Control	<p>Motorway small maintenance works, such as landscaping works, replacement of safety barriers etc., from which dust concentrations do not arise, shall be carried out.</p> <p>The improvement works of Parking and Rest areas &amp; toll stations are not maintenance works, and did not cause dust to be released, as no earthworks were done, constructions were limited to the road surface.</p>

S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
D.8	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 also 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. For 2015, a table for waste producer has been prepared and submitted to the competent service (prot. no.:40987/23-03-2016), while a similar table has been drafted and expected to be submitted for 2016.</p>
D.9	Trenches -embankments	This term relates to the construction of the Motorway.
D.10	Fauna	This term relates to the construction of the Motorway.
D.11	Planting	As regards the maintenance of vegetation, dry grass is being pruned and cut when required, especially at Arta – Filippiada I/C, at the slopes and the islet.
D.12	Fire prevention	It has been ensured that, both for vehicles and project machines as well as in the worksite, the relevant firefighting 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 adhered by the Construction J/V, the Independent Engineer, the Concessionaire, its subcontractors and advisors, etc.



S/N	ENVIRONMENTAL TERM	ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT
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 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, a general Action Plan for the monitoring of Environmental Terms, through the inspection process, which is applied using the relevant Check List, has been elaborated and is implemented. According to this checklist, regular inspections are carried out in order to ensure compliance with the environmental terms from which corrective or preventive measures may arise.</p> <p>A general Environmental Management Plan for the monitoring of Environmental Terms for the entire project has been elaborated and is being 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 Management 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 (waste collection, vegetation maintenance, areas cleaning, noise, etc.) from which corrective or preventive measures arise.</p> <p>Finally, it should be noted that Nea Odos SA concession company disposes a certified Environmental Management System ISO-14001, by the independent body Bureau Veritas.</p>
E.3	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. 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	E.T. controllability by the competent authorities	<p>Thee term is adhered. The annual and 2<sup>nd</sup> semiannual reports have been submitted. The annual and 2<sup>nd</sup> semi-annual reports for 2015 have been submitted to EYDE/KESPK&amp;DE with Nea Odos S.A. letter prot. no. 40861/19-02-2016), while the 1<sup>st</sup> semiannual report of 2016 was submitted to EYDE/ KESPK&amp;DE with Nea Odos S.A. letter prot. no. 41506/07-09-2016.</p> <p>The EIS and their approval as well as the environmental licensing of the adjacent works are located at the Concessionaire’s headquarters. Digital copies of the respective permits are located at the regional maintenance and operation motorway centers.</p>



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

January 2017

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<b>S/N</b>	<b>ENVIRONMENTAL TERM</b>	<b>ENVIRONMENTAL TERMS : WAYS – METHODS OF ASSESSMENT</b>
E.5	Project Environmental Terms Validity	The environmental terms have been amended and renewed with DG ENV of YPEKA decision no. 175041/23.09.2014.  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.
E.6	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.