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ID: 17/09/2019



Inclusion in Directive 2010/75/EU

HELLENIC REPUBLIC
MINISTRY OF ENVIRONMENT AND ENERGY GENERAL
DIRECTORATE OF ENVIRONMENTAL POLICY
Environmental Licensing Directorate
Department A

TO : MYTILINEOS SA
BUSINESS GROUP
Electricity Generation Sector
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DECISION
OF THE MINISTER OF ENVIRONMENT AND ENERGY

SUBJECT: "Approval of Environmental Terms for the development and operation of a New Power Generation Plant with a rated power of 775MW of the company MYTILINEOS SA./TED Electricity (former PROTERGIA SA) at the Existing Energy Center of Agios Nikolaos, Voiotia".

Considering:

1. Law no. 998/1979 (Government Gazette 289/A/1979) "On the protection of forests and forest areas in general of the country", as amended by Law. 2040/92 (Government Gazette 70/A/23.4.1992), the Law no. 3208/03 (Government Gazette 303/A/24.12.2003) and the Law no. 4280/2014 (Government Gazette 159/A/8.8.2014).
2. Law no. 1650/86 (Government Gazette 160/A/86) "For the protection of the environment", as amended and in force.
3. Law no. 2244/1994 (Government Gazette 168/A/07-10-1994) "Regulation of electricity generation issues from renewable energy sources and from conventional fuels and other provisions".
4. Law no. 2939/2001 (Government Gazette 179/A/2001) "Packaging and alternative management of packaging and other products - Establishment of a National Organization for Alternative Management of packaging and other products (EOEDSAP) and other provisions", as amended and in force.
5. Law no. 3010/02 (Government Gazette 91/A/02) "Harmonization of Law 1650/86 with the Directives 97/11/E.U. and 96/61/E.U., demarcation procedure and regulations of issues for watercourses and other provisions".

6. Law no. 3028/2002 (Government Gazette 153/A/2002) "For the protection of antiquities and Cultural Heritage in general".
7. The Law no.3199/2003 (Government Gazette 280/A/2003) "Protection and Water Management - Compliance with Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 ', as amended and in force.
8. Law no. 3325/05 (Government Gazette 68/A/2005) "Establishment and operation of industrial - craft facilities in the context of sustainable development and other provisions", as supplemented by Law. 4072/12 (Government Gazette 86A) "Improvement of business environment-New corporate form-Signals-Real Estate Brokers-Regulation of shipping, port and fisheries issues and other provisions".
9. Law no. 3378/2005 (Government Gazette 203/A/2005) "Ratification of the European Convention for the Protection of the Archaeological Heritage (revised)".
10. Law no. 3852/10 (Government Gazette 87/A/2010) "New Architecture of Local Government and Decentralized Administration - Kallikratis Program".
11. Law no. 3937/2011 (Government Gazette 60/A/2011) "Conservation of biodiversity and other provisions".
12. The Law no. 3982/11 (Government Gazette 143/A/17-6-2011) "Simplification of the licensing of technical professional and processing activities and business parks and other provisions", as amended by Law. 4072/12 (Government Gazette 86A) "Improvement of business environment-New corporate form-Signals-Real Estate Brokers-Regulation of shipping, port and fisheries issues and other provisions" and Law no. 4155/13 (Government Gazette 120A) "National System of Electronic Public Procurement and other provisions".
13. Law no. 4014/11 (Government Gazette 209/A/2011) "Environmental licensing of projects and activities, regulation of arbitrary in relation to the creation of an environmental balance and other provisions within the competence of the Ministry of Environment", as in force.
14. The Law no. 4042/12 (Government Gazette 24/A/2012) "Criminal protection of the environment-Harmonization with the directive 2008/99/EC-Framework for production and management of waste-Harmonization with the directive 2008/98/EC- Regulation of issues of the Ministry of Environment, Energy and Climate Change ".
15. The P.D. 51/2007 (Government Gazette 54/A/2007) "Definition of measures and procedures for the integrated protection and management of waters in accordance with the provisions of Directive 2000/60/EC".
16. The P.D. 132/2017 (Government Gazette 160/A/30-10-17) "Organization of the Ministry of Environment and Energy".
17. The P.D. 81/2019 (Government Gazette 119A/08.07.2019) "Establishment, merger, renaming and abolition of Ministries and definition of their responsibilities Transfer of services and responsibilities between Ministries."
18. The P.D. 83/2019 (Government Gazette 121A/2019) "Appointment of Deputy Prime Minister, Ministers, Deputy Ministers and Undersecretaries"
19. The P.D. 84/2019 (Government Gazette 84/A/17-7-19) "Establishment and abolition of General Secretariats and Special Secretariats/Unified Administrative Sectors of Ministries".

20. Decision No., YPEN/YPRG/67409/8288/2-8-19 (Government Gazette 3107 B) Decision of the Prime Minister and the Minister of Environment and Energy "Assignment of responsibilities to the Deputy Minister of Environment and Energy, Gerasimos Thomas".
21. The M.D. Δ6/Φ1/ΟΙΚ. 8295/19.04.1995 (GOVERNMENT GAZETTE 385/B/10.05.1995) «A. Procedures and supporting documents required for the issuance of licenses for the installation and operation of power plants, the fees to be paid and any other necessary details. B. Determination of general technical and financial terms of the contracts between producers and PPC, details of the formation of the invoices as well as terms of interconnection ".
22. JMD 11294/93 (Government Gazette 264B) "Operating conditions and permissible emission limits of waste gas from industrial boilers, steam generators, oil heaters and air heaters operating on fuel oil, diesel or gas".
23. The JMD. 37111/2021/03 (Government Gazette 1391/B/03) "Determining the manner of informing the participation of the public in the process of approval of environmental conditions of projects and activities according to paragraph 2 of article 5 of Law 1650/86 as replaced by paragraphs 2, 3 of article 3 of Law no. 3010/02» as amended by JMD 1649/45/2014 (Government Gazette 45/B/14).
24. The JMD 50910/2727/2003 (Government Gazette 1909/B/22-12-2003): "Measures and conditions for solid waste management".
25. The JMD. 13588/725/06 (Government Gazette 383B) Measures, conditions and restrictions for the management of hazardous waste in accordance with the provisions of Council Directive 91/689/EEC "On hazardous waste" of 12 December 1991. Replacement of no. 19396/1546/1997 of joint ministerial decision "Measures and conditions for the management of hazardous waste", as amended by Law no. 4042/12 (GOVERNMENT GAZETTE 24A).
26. The JMD. 24944/1159/06 (Government Gazette 791B) "Approval of General Technical Specifications for the management of hazardous waste in accordance with article 5 (par. B) of no. 13588/725 of joint ministerial decision "Measures, conditions and restrictions for the management of hazardous waste, etc." (B '383) and in compliance with the provisions of article 7 (par. 1) of Council Directive 91/156/EC of 18 March 1991 ", as amended by Law. 4042/12 (Government Gazette 24A) and is valid.
27. The JMD 3137/191/Φ.15/12 (Government Gazette 1048B) "Assignment of the categories of industrial and craft activities and electricity generation activities with the degrees of nuisance referred to in the urban decrees", as supplemented and amended by the JMD 13234/800/Φ.15/12 (Government Gazette 3251B), Φ15/48/5/14 (Government Gazette 27B), house 10432/1115/Φ.15/14 (Government Gazette 2604B) and 132894/1751/Φ15/2017 (Government Gazette 4421B).
28. The JMD. 21398/2012 (Government Gazette 1470/B/2012) "Establishment and operation of a special website for the posting of decisions approving environmental conditions (AEPO), decisions for renewal or amendment of AEPO, in accordance with article 19a of Law 4014/2011 (Government Gazette A/209/2011) ».
29. The JMD 48963/12 (Government Gazette 2703/B/2012) "Content specifications of Decisions approving Environmental Terms (Α.Ε.Π.Ο.) for projects and activities of category A 'of no. 1958/13-1-12 decision of the Minister of Environment, Energy and Climate Change (B '21) as in force, according to article 2 par. 7 of Law no. 4014/2011 (A '209) "as amended and in force.

30. The JMD 167563/ΕΥΠΕ/13 (Government Gazette 964/Β/2013) "Specialization of the procedures and the specific criteria of environmental licensing of the projects and activities of articles 3, 4, 5, 6 and 7 of Law no. 4014/2011, in accordance with the provisions of article 2, paragraph 13 thereof, of the special forms of the above procedures, as well as any other issue related to these procedures".
31. The JMD. 36060/1155/Ε.103/13 (Government Gazette 1450Β) "Defining a framework of rules, measures and procedures for the integrated prevention and control of environmental pollution from industrial activities, in compliance with the provisions of Directive 2010/75/EU" on industrial emissions (integrated pollution prevention and control) "of the European Parliament and of the Council of 24 November 2010", as amended and in force.
32. The Μ.Δ. 1649/45/14 (Government Gazette 45Β) "Specialization of the opinion procedures and the way of informing the public and participation of the interested public in the public consultation during the environmental licensing of projects and activities of Category Α of the decision of the Minister of Environment, Energy and Climate. 1958/2012 (Government Gazette Α 21) according to article 19 paragraph 9 of law. 4014/11 (Α 209), as well as each of the relevant details".
33. The JMD 51373/4684/15 (Government Gazette 2706/Β/2015) "Ratification of the National Waste Management Plan (ΕΣΔΑ) and the National Strategic Waste Prevention Plan".
34. The JMC 51575/26.10.2016 "Approval of the Strategic Environmental Impact Assessment (ΕΙΑ) of the National Hazardous Waste Management Plan (ΕΣΔΕΑ)".
35. The JMC 1915/2018 (Government Gazette/304/Β/2018) "Amendment of no. 48963/2012 (Β'2703) of joint ministerial decision, no. 167563/2013 (ΒΔ 964) of joint ministerial decision and no. 170225/2014 (ΒΔ 135) of ministerial decision, which have been issued by authorization of Law no. 4014/2011 (ΑΔ 209), in compliance with Directive 2014/52/EU "amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment" of the European Parliament and of the Of the Council of 16 April 2014".
36. The Μ.Δ. 170225/14 (Government Gazette 135Β) "Specialization of the contents of the environmental licensing files of projects and activities of Category Α of the decision of the Minister of Environment, Energy and Climate Change with no. 1958/2012 (21 Β) as in force, according to article 11 of law. 4014/11 (Α 209), as well as each of the relevant details".
37. The MD no. ΔΙΠΑ/οικ.37674/2016 (Government Gazette 2471/Β/2016) by which the MD was modified and codified. 1958/2012 (Government Gazette 21/Β/13.1.2012) "Classification of public and private projects and activities in categories and subcategories according to Article 1 paragraph 4 of L. 4014/21.9.11 (Government Gazette 209/Α/2011) "as it has been amended with no. 2307/18 (Government Gazette 439/Β/2018) and is valid.
38. The MD 62952/5384/2016 (Government Gazette 4326/Β/30.12.2016) "Approval of the National Hazardous Waste Management Plan (ΕΣΔΕΑ), according to article 31 of L. 4342/2015".
39. The Ρ.Υ.Σ. 49 of 15-12-2015 (Government Gazette 174/Α/2015) "Amendment and approval of the National Waste Management Plan (ΕΣΔΑ) and the National Strategic Plan for the Prevention of Waste Generation that were ratified with 51373/4684/25-11-2015 joint decision of the Ministers of Interior and Administrative Reconstruction and Environment and Energy, according to article 31 of L. 4342/2015".

40. The no. circular 153914/2.12.15 Circular of the Minister of Environment and Energy regarding the application of article 18 of JMD 36060/1155/E.103/13 (Government Gazette 1450B) regarding the obligation to submit a basic report (ΑΔΑ: 7ΔΨ14653Π8-8Ο2).
41. The Best Available Techniques referred to in Guides and Reference Texts and in particular the Executive Decision (EU) 2017/1442, of the Commission of 31 July 2017 laying down the conclusions on Best Available Techniques (BAT) under Directive 2010/75/European Parliament and of the Council, for large combustion plants, the Reference Manuals (BREFs) for the Identification of the Best Available Techniques for Cooling Systems (Reference Document on the application of Best Available Techniques to Industrial Cooling Systems, December 2001), the reference text for monitoring (Reference Report on Monitoring of Emissions to Air and Water from IED installations, July 2018).
42. Regulation 166/2006 (L 033/04.02.2006) of the European Parliament and of the Council of 18 January 2006, Regulation E-PRTR, "establishing a European Pollutant Release and Transfer Register and amending Directives 91/689/EEC and Council 96/61/EC".
43. The no. 2012/249/EU Commission Implementing Decision of 7 May 2012 fixing the start-up and shutdown periods for the purposes of Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions.
44. The fact that the unit in question falls under the provisions of JMD 54409/2632/04 (Government Gazette 1931B as amended by JMD 181478/965/2017 (Government Gazette 3763B) "Amendment and codification of no. I.P. 54409/2632/2004 of the Joint Ministerial Decision "Greenhouse gas emission allowance trading scheme in accordance with the provisions of Directive 2003/87/EC" establishing a greenhouse gas emission allowance trading scheme within the Community and amending Directive 96/61/EC of the Council "of 13 October 2003 and other provisions" (BD 1931) as amended "and applies to the greenhouse gas emission allowance trading scheme, in accordance with Article 21 of which no emission limits are imposed on the unit concerned no requirements for the energy efficiency of combustion plants that emit carbon dioxide.
45. The B.D. from 24.10.1962 (Government Gazette 138 D ' / 1.11.1962 which expropriated the wider area to which the disputed property belongs, in favor and at the expense of the company then "SA Aluminum of Greece "for public benefit and specifically for industrial use with the establishment of an Aluminum industry.
46. The no. oik. 902/21.12.2017 (Government Gazette 4673/B/29.12.17) Decision of the National Water Committee on "Approval of the 1st Revision of the Management Plan of the River Basins of the Water Department of Eastern Central Greece and the respective Strategic Environmental Impact Study".
47. (The with no. ΥΠΕΝ/ΓΡΕΓΥ/41375/328/6.7.2018 (B '2682) Decision of the National Water Committee on: "Approval of the Flood Risk Management Plan of the River Basin of the Water Department of Eastern Central Greece (EL07) and the corresponding Strategic Environmental Impact Study".
48. The no. prot. ΥΠΕΝ/DIPA24999/1611/19-03-2019 application of the company "MYTILINEOS SA - GROUP OF BUSINESSES Electricity Sector "with attached file Environmental Impact Study for the approval of environmental conditions of the activity of development and operation of a new Power Plant at the existing power center of Agios Nikolaos Boiotia as submitted with IPM with PET 1902042017.
49. The no. prot. ΥΠΕΝ /DIPA/24563/1609/28-03-2019 document of DIPA/ΥΠΕΝ for the submission of copies of the Environmental Impact Study file after the completeness check.

50. The no. DIPA/YPEN/28500/1857/29-03-19 application of the company "MYTILINEOS SA - GROUP OF ENTERPRISES Sector of Electricity "with attached copies, in printed and digital form, of the submitted file of Environmental Impact Study.
51. The no. prot. YPEN/DIPA/28500/1857/05-04-2019 document of DIPA/YPEN with which the EIA of the examined activity was forwarded for publication to the co-competent Services in order to give an opinion on the EIA of the said Power Plant.
52. The no. prot. ΥΠΠΟΑ/ΓΔΑΜΤΕ/ΥΝΜΤΕΑΑΣΕΚ/185174/19950/3220/09-04-2019 document of the Service of Modern Monuments & Technical Works of Attica, Eastern Central Greece & Cyclades of the Ministry of Culture according to which the Service cannot give an opinion on transmitted EIA because it does not fall within the scope of its legal responsibilities (a.p. ΥΠΕΝ/ΔΙΠΑ/36538/2410/19-04-2019).
53. The no. prot. 181421/1721/10-04-2019 document of the Directorate of Forest Protection requesting the opinion and expression of opinions from the General Directorate of Coordination and Inspection of Forests of Apok. Διοίκ. Thessaly - St. Of Greece and from the Forest Department of the Prefecture of Viotia.
54. The no. prot. ΥΠΠΟΑ/ΓΔΑΤΙΚ/ΕΦΑΒΟΙΩ/221195/156290/1983/23-04-2019 document of the Ephorate of Antiquities of Boeotia of the Ministry of Culture with which the case is forwarded for examination to the Local Council of Monuments of Central Greece (ap. ΥΠΕΝ/ΔΙΠΑ/39917/2624/03-05-2019).
55. The no. prot. ΥΠΕΝ/Δ.ΧΩΡΣ/31272/388/03-05-2019 document of the Department of Spatial Planning of YPEN according to which the Service gives a positive opinion for the implementation of the project without the requirement of additional terms - conditions (a.p. ΥΠΕΝ/ΔΙΠΑ/39928/2625/03-05-2019).
56. The no. prot. YPEN /DIE/31649/667/10-05-2019 document of the Directorate of Electricity of YPEN according to which the Service gives a positive opinion on the operation of the Project according to the relevant Environmental Impact Study (a.p. ΥΠΕΝ/ΔΙΠΑ/42189/2721/10-05-2019).
57. The no. prot. 1210/56249/14-05-2019 document of the Water Directorate of Central Greece with which the Service gives a positive opinion for the implementation of the Project proposing certain conditions that were taken into account (a.p. ΥΠΕΝ/ΔΙΠΑ/45157/2905/20.05.19).
58. The sub no. prot. ΥΠΠΟ/ΓΔΑΠΚ/ΕΕΑ/265743/189120/3805/17-05-2019 document of the Ephorate of Marine Antiquities of the Ministry of Culture with which the Service gives a positive opinion for the implementation of the Project proposing certain conditions that were taken into account (a.p. ΥΠΕΝ/ΔΙΠΑ/50390/3206/04/06/2019).
59. The no. prot. 3122.1-L26/40339/2019/31-05-2019 document of the Directorate of Port and Building Infrastructure (Section B ') of the Ministry of Shipping and Island Policy with which it gives a positive opinion on the implementation of the Project proposing certain conditions that were taken into account (prot. no. ΥΠΕΝ/ΔΙΠΑ/49468/3163/31-05-2019).
60. The no. prot. 1898/63637/07-06-2019 document of the Livadia Forest Service with which additional information is requested.
61. The no. YPEN/DIPA/55685/3467/20-06-2019 letter of the company "MYTILINEOS SA - GROUP OF BUSINESSES Electricity Sector ", following no. prot. 1898/63637/07-06-2019 document of the Livadia Forest Service, with attached topographic diagram.
62. The no. 3/21-06-2019 Minutes of the Meeting of the Committee of Environment and Development of Central Greece with the relevant suggestion of the BISCELLANEOUS

Region of Central Greece, in which certain conditions that are taken into account are proposed (a.p. ΥΠΕΝ/ΔΙΠΑ/63289/399923.07.19).

63. The no. prot. oik 1842/115076/10-07-2019 document of the DIPECHOS Central Greece of the Decentralized Administration of Thessaly - Central Greece.
64. The no. ΥΠΠΟΑ/ΓΔΑΠΚ/ΔΙΠΚΑ/ΤΠΚΑΧΜΑΕ/375364/267961/7913/3082/17.07.2019 opinion on the EIA of the Directorate of Prehistoric and Classical Antiquities of the Ministry of Culture with which it gives a positive opinion on the implementation of the Project όψιν (.α.π. ΥΠΕΝ/ΔΙΠΑ/78686/5125/05.09.19).
65. The no. prot. 23/29-07-2019 document of the Corinthian Gulf Management Agency requesting additional information. ΥΠΕΝ/ΔΙΠΑ/70453/4566/02.08.2019).
66. The no. prot. ΥΠΕΝ/ΔΙΠΑ/79453/4566/02-08-2019 letter of the company "MYTILINEOS SA - GROUP OF BUSINESSES Electricity Sector ", following no. prot. 23/29-07- 2019 document of the Corinthian Gulf Management Agency.
67. The no. ΥΠΕΝ/ΔΔΦΠΒ/31649/776/02.08.2019 opinion on the EIA, the Directorate of Natural Environment and Biodiversity Management, with which it gives a positive opinion on the implementation of the Project proposing certain conditions that were taken into account.
68. The no. prot. ΥΠΕΝ /ΔΙΠΑ/73910/4841/19-08-2019 letter of the company "MYTILINEOS SA - GROUP OF BUSINESSES Electricity Sector "with which the correct repetition of no. ΥΠΕΝ/ΔΔΦΠΒ/31649/776/02.08.2019 document of the Department of Natural Environment and Biodiversity Management.
69. The no. ΥΠΕΝ/ΔΠΔ/77149/1462/02.09.2019 opinion on the EIA of the Directorate of Forest Protection of ΥΠΕΝ with which it gives a positive opinion on the implementation of the Project proposing certain conditions that were taken into account (a.p. ΥΠΕΝ/ΔΙΠΑ/77153/5026/02.09.19).
70. The no. prot. ΥΠΕΝ/ΔΔΦΠΒ/73924/1949/04.09.18 document of the Department of Natural Environment and Biodiversity Management, as a supplementary document of the above (67) relevant (a.p. ΥΠΕΝ/ΔΙΠΑ/78485/5115/05.09.19).
71. The no. 744/2018 "Issuance of a license for the production of electricity from a combined cycle Plant with natural gas fuel power of 665MW, at Agios Nikolaos in the Municipality of Distomo-Arachova-Antikyra of Boeotia to the company" MYTILINEOS SA-GROUP EPIHI " Energy (RAE).
72. The submission number PRP000001 - 25 - 6976/05.07.19 application to RAE for the modification of the installed power from 665 MW (744/2018) to 826 MW (a.p. ΥΠΕΝ/ΔΙΠΑ/80958/5274/12.09.2019).

WE DECIDE

The approval of environmental conditions for the construction and operation of a New pOWER Generation plant with a rated power of 775MW of the company MYTILINEOS SA. at the Existing Energy Center of Agios Nikolaos, Boeotia

A. DESCRIPTION OF THE ACTIVITY

1. BRIEF DESCRIPTION OF THE ACTIVITY

1.1. Brief business details

Name: MYTILINEOS SA BUSINESS GROUP

Type of activity: Combined Cycle Power Plant, from natural gas fuel, rated power 775MW, under ISO conditions, new and clean (nominal thermal power: 1.218MW)

Category A, Subcategory 1 Category 9^h (ΔΙΠΑ/οικ 37674/16) α/α 209:
"Power plants with gaseous fuels other than biogas, rated thermal power> 300MW"

Address: Distomo Beach, PC 320 03,
Saint Nicholas,
Voiotia

Head offices address: Artemidos 8, Maroussi, K 151 25, Attiki
Tel. 210 3448300, Fax. 210 3448470

Contact Person: Kyriakos Berdebes
210 344 8340, Kyriakos.berdebes@protergeia.gr

1.2. Unit size

Capacity: Annual Electricity Generation:
6.500 GWh

Stadium Description: next to the alumina-aluminum industrial unit (ATE), the H High Efficiency Electricity-Heat Cogeneration Unit (SITHYA) and the Independent Power Plant (IPP), as described in the topographic diagram referred to in the preamble to this Decision. (51) (Owned by ALUMINUM OF GREECE, within an expropriated plot of land with a total area of 7,035,700 m₂)

1.3. Employed staff and operating time

Employed staff: 23 people

Operating time: 8,600 equivalent hours

1.4. Production process

The production process is "combined cycle", consisting of two stages or thermodynamic cycles, with the combination of air turbine - steam turbine operation. In the first stage, the electricity generation takes place in the gas turbine that moves with the hot exhaust gases from the combustion of the natural gas. The exhaust gases are then led to the heat recovery boiler to produce superheated steam. In the second stage the steam is led to the steam turbine to generate electricity. After the steam is released into the steam turbine, the steam is liquefied in a water-cooled condenser and fed back to the boiler. The condenser is cooled by seawater, in a closed cooling circuit.

1.4.1 Power plant Description

The Power Plant includes:

- A gas turbine for operation with fuel gas of nominal power 538MW, equipped with dry type burners of low NOx emissions
- Exhaust heat recovery boiler for the production of three-stage superheated steam
- A steam turbine, 237MW, three pressure levels, with water-cooled condenser
- A 990MVA Three Phase Generator, with internal hydrogen cooling circuit and external water cooling circuit
- Steam cycle management system including condenser, degasser, water, steam circuit, combustion air and exhaust gas circuit, seawater cooling circuit (closed system with cooling towers) and industrial water (auxiliary circuit), chemical addition system
- A chimney 50m high and 9.2m in diameter.
- Array of seawater cooling towers.

Auxiliary facilities include:

- Receiving, cleaning, measuring, pressure and temperature and fuel handling systems (natural gas)
- Seawater water intake infrastructure (cooling tower make-up) from the discharged seawater cooling water of SITHYA
- Water and liquid waste pumping stations
- Closed auxiliary cooling circuit
- Industrial and deionized water storage tanks and possibly plant for the production of additional deionized water and EDI water (deionized water of higher purity)
- Storage tanks for industrial acids, alkaline solutions, mineral oils and other additives
- Firefighting installation
- Electrical system consisting of a main medium/high voltage transformer, as well as the necessary electrical equipment, which includes, but is not limited to, auxiliary voltage lowering transformers to supply the auxiliary loads of the unit, medium and low voltage panels, batteries, batteries uninterruptible power supply etc.

- Generator pair approx. 1.700kVA.
- Expansion of the existing Agios Nikolaos KYT of IPTO SA (substation - GIS 400 kV)
- Storage facilities for hydrogen, nitrogen and carbon dioxide cylinders
- Extra carbon dioxide tank
- Exhaust gas quality monitoring/recording system
- Central Control System of the operation of the Plant
- Staff service facilities
- Warehouse and maintenance building
- Auxiliary facilities and machinery

The development of the plant within the plot of MYTILINEOS SA and in the vicinity of the existing units SITHYA and IPP, of the Energy Center, enables the use of existing infrastructure, which includes, among others:

- Auxiliary steam supply during start-up and booking
- Provision of emergency electrical connection with the SITHYA unit
- Use of the existing fire safety, firefighting infrastructure, as well as the means and intervention teams of MYTILINEOS SA
- Use of health services (ambulance and first aid center) of MYTILINEOS SA
- Use of the existing certified chemical analysis laboratory of the SITHYA and ASI units
- Road interconnection network with neighboring facilities of the plot of MYTILINEOS SA
- Water supply network
- Existing production facilities for industrial and deionized water
- Existing wastewater treatment plant and municipal wastewater treatment plant
- Telecommunication network

The above infrastructures are part of the facilities of MYTILINEOS SA. and are governed by the terms of the relevant JMC approval of environmental terms and are made available to the Plant whenever and to the extent required.

1.4.2 Raw materials and auxiliary materials (annual consumption)

- Diesel Oil: 2.3 t
- Trisodium phosphate: 2.4 t/year
- Phosphonic acid solution: 60 t/year
- Sodium xyl sulfate solution: 20 t/year
- Carbohydrazide solution: 4 t/year
- Ammonia or amine solution: 9 t/year

- H₂ (under pressure, in cylindrical cylinders): 2 t/year
- N₂ (under pressure, in cylindrical cylinders): 6 t/year
- CO₂ (under pressure, in cylindrical cylinders and tank): 15 t/year
- Sodium hypochlorite solution (NaOCl): 210 t/year
- Mineral Oils/Lubricants: 5 t/year
- Corrosion inhibitor: 3 t/year
- Alkali metal solution (<0.5 ppm): 1 t/year
- Antidepressant: 1 t/year
- He (under pressure, in cylindrical cylinders): 0.05 t/year
- Inergen (under pressure, in cylindrical cylinders): 1 t/year

The above quantities are indicative and depend on the annual operating hours, the number of starts and the charging of the Plant.

1.4.3 Use of water

The use of water for the operation of the Plant concerns:

- The industrial water to serve the needs of the new Plant (both industrial and deionized water) will come from the respective network that serves the adjacent units SITHYA and ASI. The industrial water for general use mainly covers the washing needs of the main and auxiliary equipment of the plant, the (possible) cooling requirements of the heat recovery boiler during start-up, as well as the requirements of the fire extinguishing network. Any minimal losses during the operation phase in the closed water-steam circuit are replenished with deionized water that will come from the deionization unit of SITHYA and then from the EDI (Electrodeionization) treatment unit of the existing ASI. Part of these quantities of deionized water may be produced in corresponding facilities of the new plant. The supply of industrial and deionized water is estimated at 10.6 m³/h
- Water for human use which will also come from the network of MYTILINEOS SA. with indicative average hourly consumption of 0.4 m³/h.
- Replenishment water due to evaporation losses and continuous removal of cooling towers, which will come from the discharged seawater cooling water of the adjacent SITHYA unit, through pumps installed near the cooling towers, with an estimated flow of 3.706 m³/h. In the event that the SITHYA unit is switched off (eg due to a fault), there will be provision for the maintenance of the seawater refill circuit of the cooling towers through a bypass valve of the auxiliary cooling circuit of the SITHYA unit.

1.4.4 Energy/fuel use (based on plant capacity)

To meet the energy requirements of the plant, natural gas is used with an annual consumption of approximately 11,900 GWh HHV.

1.4.5 Atmospheric emissions

Atmospheric emissions generated during the operation of the plant are atmospheric emissions from the combustion of natural gas.

1.4.6 Liquid waste

The liquid industrial waste, after a small treatment inside area of the plant, as well as the municipal wastewater is channeled through closed pipes to the respective treatment complexes of MYTILINEOS SA.

Liquid waste generated during the operation and maintenance of the plant includes:

- Industrial waste with an estimated average hourly flow of 8 m³/h. The maximum daily supply (includes daily start up as transient 2 hours) of liquid waste of the plant is estimated at 430 m³/d or 1,000 m³/d in case of start-up after long maintenance.
 - o Water with small impurities of mineral oils, including waste from transformers and lubricating tanks of gas turbine and steam turbine, waste from condenser losses, waste from closed auxiliary refrigeration as well as cooling coil, and runoff after washing areas that potentially bear traces of oil.
 - o Liquids that are produced during the cleaning and maintenance periods of the steam turbine, as well as during the washing of the gas turbine, the heat recovery boiler and the heat exchangers.
- Discharges of cooling towers, continuous removal of seawater from the cooling towers, hourly flow 2,850 m³/h, discharged into the sea through a closed pipeline together with the discharged seawater of the adjacent plants.
- Urban wastewater with an estimated flow of 0.4 m³/h that is channeled through closed pipes to the respective urban wastewater treatment plant of MYTILINEOS SA.
- Clean rainwater collected from the plant

The waters with small admixtures of mineral oils, after being separated in an oil separator with a capacity of at least 3m³, are channeled to the liquid industrial waste network of MYTILINEOS SA. for further processing and final disposal, while respectively the oils held in it are delivered to specialized licensed management bodies. The aqueous phase of the oil separator and the removal of the heat recovery boiler are available directly at the existing liquid waste treatment plant of MYTILINEOS SA. Liquid waste from the compressor of the gas turbine, steam turbine and other equipment will be collected in a container of suitable capacity and will be delivered to specialized licensed operators. Uncharged rainwater and fire-fighting water through a sampling well can be discharged directly to the final marine recipient through the rainwater network of the facilities of MYTILINEOS SA.

1.4.7 Solid and hazardous waste

The solid and hazardous waste generated by the operation of the plant and the approximate quantities are:

EKA code	Description	Estimated quantity (t/year)
05 07	Sludge from the fuel purification unit (natural gas)	0.5
05 07 99	Waste not otherwise specified (waste from cleaning and gas transport)	0.5
15 01 01	Packaging made of paper & cardboard	8
15 01 02	Plastic packaging	2
15 01 03	Wooden packaging	10
15 01 04	Metal packaging	8
16 01 03	Tires at the end of their life cycle	0.4
16 06 04	Alkaline batteries (except 16 06 03)	0.2
16 06 05	Other batteries & accumulators	0.2
19 09 01	Solids from primary refining & scrapings	0.5
19 09 02	Mud from water clarification	0.5
19 09 03	Sludges from the removal of carbonates	1
19 09 05	Saturated or depleted ion exchange resins	0.5
19 09 06	Solutions & sludges from ion exchange regeneration	0.2
20 01	Municipal waste resembling municipal waste and packaging materials	1
20 01 36	Disposable electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	2
20 03 01	Mixed municipal waste	2
15 02 03	Absorbent materials, filter materials, wipes and protective clothing, other than those mentioned in 15 02 02*	25
16 01 17	Ferrous Metals	10
17 04 07	Mixed Metals	2
17 02 03	Plastic	10
17 04 05	Iron and steel	10
13 01 11*	Synthetic hydraulic oils	2
13 02 05*	Non-chlorinated mineral, gearbox and mineral lubricating oils	100
13 03*	Waste insulation and heat transfer oils	0.5
13 05*	Waste oil/water separator	20
16 07 08*	Waste containing oil	1
05 01 11*	Sludge from the fuel cleaning complex	1

EKA code	Description	Estimated quantity (t/year)
05 01 03*	Sludge from the periodic cleaning of the diesel oil tank	0.5
16 06 01*	Batteries and lead accumulators	70
16 02 15*	Hazardous components removed from discarded equipment	0.1
20 01 21*	Waste electrical and electronic equipment	0.02
15 02 02*	Cloths, towers, etc. contaminated with oils/petroleum/chemicals	4
15 01 10*	Packaging containing residues of dangerous substances	4
16 05 06*	Chemical Laboratory Waste	1
12 03 01*	Turbine washer fluids	30
16 05 07*	Disposable inorganic chemicals consisting of or containing dangerous substances	2
16 05 08*	Disposable organic chemicals containing or containing hazardous substances,	20
20 01 33*	Mixed batteries and accumulators	1
11 01 05*	Purifying acids	1
20 01 35*	Electrical and Electronic Equipment	0.5
15 01 10*	Packaging containing residues of dangerous substances or contaminated with them	4

1.4.8 Noise

Produced during the production process by the operation of the machines.

1.5. Category, subcategory and type of project

Group 9, Category A, Subcategory A1,

a/a 209: "Electricity generation facilities with gaseous fuels other than biogas, nominal thermal power > 300MW" (Annex IX, Table 1, Υ.Α. ΔΙΠΑ/οικ. 37674/16 (Government Gazette 2471B)).

1.6. Follow the instructions:

The plant falls within the scope of application:

- of Directive 2010/75/EU (IED) "on industrial emissions (Integrated Pollution Prevention and Control)" (paragraph 1 (1.1) of Annex I of the JMD. 36060/1155/E.103/13, (Government Gazette 1450B), as in force.
- Directive 2003/87/EC, as amended by 2009/29/EU "on the establishment of a greenhouse gas emission allowance trading scheme", as in force.

1.7. Geographic coordinates

Geodetic coordinates of the field position (according to EGSA '87): X = 385442, Y = 4245850

2. LIMIT VALUES OF POLLUTANTS IN THE ATMOSPHERE, WATER, GROUND, NOISE AND VIBRATION LEVELS AND ENVIRONMENTAL QUALITY**1.8. Atmospheric emissions**

2.1.1 Due to the quality of the consumed fuel (natural gas) there are no emission limit values for SO₂ and particles from the operation of the plant.

2.1.2 As the plant falls under the provisions of JM 54409/2632/04 (Government Gazette 1931B) as it is in force, regarding the greenhouse gas emission allowance trading system, no carbon dioxide emission limits are imposed on the unit in question (article 21), nor any relevant requirements. with the energy efficiency of combustion plants that emit carbon dioxide.

2.1.3 Observe the following maximum emission limit values for air pollutants from the plant:

- until 31/07/2021 to take into account point 6 of part 1 of Annex V of JM 36060// 1155 /E.103 (Government Gazette 1450/B/14-6-2013):
 - NO_x (as NO₂): 75 mg/Nm³ (on a dry basis and 15% O₂) for natural gas combustion, operation with a load greater than 70% and according to ISO in basic load conditions, with an average annual total electrical efficiency greater than 55%. For other cases 50 mg/Nm³ (on a dry basis and 15% O₂) for operation with a load greater than 70% and according to ISO in basic load conditions.
 - CO: 100 mg/Nm³ for ISO operation with a load greater than 70%.

For the control of compliance with the emission limit values, point 1 of part 4 of Annex V of JM 36060/1155 /E.103 (Government Gazette 1450/B/14-6-2013) should be taken into account.

- from 01/08/2021 to apply the Executive Decision 2017/1442/EU for the combustion of natural gas:
 - NO_x (as NO₂): 30 mg/Nm³ annual average and 40 mg/Nm³ daily average or average of the sampling period
 - CO: 30 mg/Nm³ annual average
 - For units with a net electrical efficiency (HA) of more than 55% a correction factor may be applied to the upper limit of the range corresponding to the value: [upper limit] x HA/55, where HA is the unit's net electrical output at ISO base load conditions. Therefore the range of emissions for the case of the new plant is set at 10-33mg/Nm³ ([30] x60.8/55 = 33mg/Nm³).

2.1.4 To observe the limit values of the quality of the atmosphere, as they are defined in the provisions of no. I.P. 14122/549/E.103/2011 (Government Gazette 488B) JMC "Measures to improve the quality of the atmosphere", as amended by No. 174505/607/2017 (Government Gazette 1311B) and is in force (Annexes XI and XII) in collaboration with the aluminum production plant of MYTILINEOS SA :

- For NO₂ : 200 µg/Nm³ for the available average hourly values for the year, with a margin exceeding 18 times per calendar year and 40 µg/m³ for the average annual value
- For SO₂ : 350 µg/m³ for the available average hourly values for the year, with a margin exceeding 24 times per calendar year and 125 µg/m³ for the available average daily values for the year, with a margin exceeding 3 times per calendar year.

- For particles (DP_{10}): $50 \mu\text{g}/\text{m}^3$ for the available average daily values of the year, with a margin of exceeding 35 times per calendar year $40 \mu\text{g}/\text{m}^3$ for the average annual value.
 - Alarm threshold for NO_2 and SO_2 : 400 and $500 \mu\text{g}/\text{m}^3$ respectively, measured for three (3) consecutive hours
- 2.1.5 Plant start and stop: No emission limit values are set for the start and stop intervals of the plant (article 3, point 27, JM 36060/1155 /E.103 (Government Gazette 1450/B/14-6-2013)).
- 2.1.6 To observe the emission limit values of atmospheric pollutants from any combustion sources for the heating of buildings and water according to Y.A. 189533/11 (Government Gazette 2654B).

2.2 Liquid waste

There are no threshold values for the liquid waste of the Plant, because the liquid waste of the installation is led to treatment in the liquid industrial waste treatment plant of the aluminum production plant of MYTILINEOS SA. In any case, the stream of treated waste from the treatment system must comply with the limit values set at the respective AEPO of the aluminum production plant of MYTILINEOS SA.

2.3 Noise level

Noise level ≤ 65 dBA, measured at the boundaries of the field of the installation (PD 1180/81, Government Gazette 293A).

3 INSTITUTED KEY CHARACTERISTICS OF AREA OF ACTIVITY AND SENSITIVE ELEMENTS OF THE ENVIRONMENT

3.1 Spatial planning and land uses

In the Special Framework for Spatial Planning and Sustainable Development in Industry, JM 11508/2009 (Government Gazette 151AAP/13.04.2009) reference is made to the industrial activity of PE Boeotia, where the Project is located, while the location of the facilities of MYTILINEOS. (former ALUMINUM SA) which includes the plant under study) is noted in a relevant Map as an Industrial Pole.

According to the Regional Spatial Planning Framework of the Region of Central Greece regarding the spatial organization of the production system and in particular of the Secondary sector (article 11 par. B3) promotes, among other things, the area of the aluminum production factory in the White Houses as an Individual Organized Receptor "Aluminum SA".

Furthermore, in the more specific spatial planning directions (article 11par.B4) it is mentioned: Support the establishment of industrial structure with power generation, especially <<soft>> at the organized industrial poles.

Based on the no. 3529/149006 Decision (Government Gazette 273/AAP/12.12.2016) for the approval of the General Urban Plan (GIS) Community of Kyriaki, Municipality of Levadea, the project area is defined as a Special Uses Area and in particular as PEX7: Aluminum of Greece. Based on the no. 3124/128532 Decision (Government Gazette 432/AAP/31.12.2012) for the approval of the General Urban Plan (GIS) Municipal Unit of Distomo of the Municipality of

Distomo - Arachova - Antikyra the area of the facilities of MYTILINEOS SA is characterized as an Area of Control or Restriction of Construction (PEPD) and more specifically as PEPD. 5 (Disturbing Industry Zone), while the permitted land uses concern, among others, power plants, alumina and aluminum production, storage facilities, technical infrastructure networks, etc.

3.2 Elements of environmental sensitivity of the Project area

The new plant located on the land section is adjacent to the protected area with Code GR 253007 and name "CORINTHIAN BAY".

The seawater cooling and treated liquid industrial waste are disposed of through the existing infrastructure of the Alumina-Aluminum plant within the above protected area.

According to the relevant no. 67, the activity is to be developed in two sections of land (4,600 + 45,000 sq.m.) that have been expropriated for public benefit (establishment of the Aluminum industry) for and at the expense of MYTILINEOS SA (former ALUMINUM SA) the first section of 4,600 sq.m. is located in a non-forest area and consequently falls outside the scope of competence of the forest service, while the second part of an area of 45,000 sq.m. is located in a forest area of par. 2, art. 3 v. 998/1979, as amended and in force. The project under approval is a permissible intervention in accordance with the provisions of paragraph 5 of article 53 of the Law. 998/1979 as in force, in combination with paragraphs 2 and 4 of article 45 of the same law.

4 CONDITIONS, MEASURES AND RESTRICTIONS TO BE TAKEN TO MINIMIZE AND TREAT POTENTIAL ENVIRONMENTAL IMPACTS

4.1 General settings

- 4.1.1 The operator of the activity, as well as every legal person liable, bears full responsibility for the observance of the environmental conditions, measures and restrictions imposed by this Decision.
- 4.1.2 The operator is obliged to appoint a person responsible for monitoring the observance of the environmental conditions, measures and restrictions set out herein and to notify his name to the competent environmental authority.
- 4.1.3 The operator is not exempt from the obligation to comply with the provisions of the current environmental legislation in general, regardless of whether or not they are mentioned in this Decision.
- 4.1.4 From the appropriations for the operation of the activity, to provide as a priority the necessary expenses for the environmental protection projects that are required for the full observance of the terms and restrictions of this Decision.
- 4.1.5 The plant should consume natural gas of the current state standards, which will be transported directly from the main pipeline.
- 4.1.6 Check equipment for detecting and dealing with gas leaks on a scheduled basis.
- 4.1.7 The above-ground sections of the fuel lines should be visually inspected at least once a day.
- 4.1.8 The safety basins must be watertight, equipped with appropriate collection mechanisms for the collection of dehydration and rainwater.
- 4.1.9 Large-scale fuel leaks in the area of safety basins to be recovered as much as possible and reused.

- 4.1.10 The use of new devices containing PCBs and PCTs, chlorinated solvents and asbestos-containing materials is prohibited.

4.2 Construction phase

4.2.1 Use of natural resources

- 4.2.1.1 The materials required for the construction of the project can be obtained either a) from the excavation materials of the project itself, if they are suitable and b) from legally operating quarries in the area.
- 4.2.1.2 All kinds of arbitrary sandblasting are prohibited.
- 4.2.1.3 It is forbidden to create a loan chamber or to take materials from riverbeds or torrents for materials that may be required for the construction of the project.
- 4.2.1.4 During earthworks, the soil layer containing the plant soil should be collected and stored separately for use in environmental restoration work.

4.2.2 Waste management

- 4.2.2.1 Excess excavation materials from the construction of the project that can not be used for the construction needs of the project, to be utilized by the Project Authority in the landscaping and restoration works of the solid waste disposal site it maintains in the area, after temporary disposal in the quarry of the company's limestone in the area and especially in the two landscaped squares at the levels of +65.00 to + 80.00m and +80.00 to + 95.00m.
- 4.2.2.2 In any case, even the temporary deposition of materials in a) parts of the hydrographic network, b) in forest areas, c) in archaeological areas and d) in coastal areas is prohibited.
- 4.2.2.3 During the earthworks, all necessary measures should be taken to avoid: a) any kind of soil destabilization or dispersal of earthworks and aggregates of the project such as: landslides or erosion of slopes, rinsing of piles of aggregates, etc., b) reduction of aggregates hydrographic network of the area, c) causing adverse effects on other infrastructure located in the area. In cases where the probability of occurrence of the above phenomena is increased, such as during a period of heavy rainfall, to stop earthworks in places with high slopes.
- 4.2.2.4 Household-like solid waste should be carefully collected and disposed of for legal disposal. In any case, the management of non-hazardous waste to be carried out in accordance with the provisions of JM 50910/2727/2003 (B 1909) and Law 4042/2012 (A 24), as they apply.
- 4.2.2.5 The management of waste that falls under the provisions of Law no. 2939/2001 (A 179) on alternative waste management, as in force, to be carried out in accordance with the provisions of this law and the regulatory acts issued under its authority and in accordance with the requirements and specifications of the respective systems approved by YPEN alternative management.
- 4.2.2.6 The management of any hazardous waste to be done in accordance with the provisions of current legislation.
- 4.2.2.7 The project operator must take care of maintaining the cleanliness of the space he manages. All kinds of waste, useless materials, old spare parts and machinery, etc. to be

collected and removed from the project site, in accordance with the provisions in force. It is forbidden to burn any kind of useless materials (tires, oils, etc.).

4.2.3 Urban wastewater and wastewater management

- 4.2.3.1 Sewage of construction site personnel should not be disposed of uncontrollably. Use chemical treatment site toilets.
- 4.2.3.2 To take all necessary measures to avoid any form of water pollution from solid waste, waste materials, mineral oils, etc., during the construction phase of the project.
- 4.2.3.3 Pollution of surface and groundwater by any kind of lubricating oils, fuels, etc., as well as their dumping on the ground is prohibited. The mineral oils to be used to be stored in closed containers in a covered area, while the used mineral oils and their leaks to be collected and disposed of in accordance with the provisions of PD/82/2004 (Government Gazette 64/B/02.03.2004), of the JM 13588/725/2006 (Government Gazette 383/B/28.03.2006, of the JM 24944/1159/2006 (Government Gazette 791/B/30.06.2006) and of the JM 8668/02.03.2007 (Government Gazette 287/B/2007).
- 4.2.3.4 In order to prevent the leakage of fuel or lubricants, various materials (eg sawdust, sand, etc.) stored in an easily accessible place on the construction site should be used, through which the adsorption and consequently the retention of leaking fuels and lubricants should be sought. After their use, these absorbent materials must be carefully collected in barrels and then subjected to management in accordance with the provisions of the PD. 82/2004.

4.2.4 Atmospheric emissions

- 4.2.4.1 Regular maintenance and inspection of the vehicles and machinery of the project is required. All machinery and equipment used in construction must be in good condition and meet the manufacturer's specifications to minimize dust emissions.
- 4.2.4.2 The deposition in piles of materials that will be used in the construction of the project, to be carried out from the minimum possible height.
- 4.2.4.3 Wet the access roads of the vehicles transporting the materials for the construction of the project and the configuration of the surrounding area.
- 4.2.4.4 The trucks that will be used to transport the materials must be properly covered.
- 4.2.4.5 Limit the passage of trucks through settlements to a minimum.

4.2.5 Noise - Vibrations

- 4.2.5.1 The emission limit values to the environment from equipment for use outdoors (construction site) to be in accordance with the provisions of number 37393/2028/2003 (Government Gazette. 1418B/2003) Joint Ministerial Decision (JMD), as in force.
- 4.2.5.2 The equipment used to have EEC type approval for the limit value of the level of the emitted noise according to the number 69001/1921/1988 (Government Gazette. 751B/1988) Joint Ministerial Decision (JMD), as supplemented by the number 10399/Ø5.3/361/1991 (Government Gazette. 359B/1991) Joint Ministerial Decision (JMD).

- 4.2.5.3 It is not allowed to use construction machinery and equipment without the EEC type approval certificate as provided in the above Joint Ministerial Decisions (JMD), as they are amended and valid each time.
 - 4.2.5.4 To observe the noise limits according to the P.D. 1180/81 (Α 293) and the other provisions of the current legislation.
 - 4.2.5.5 In case of use of explosives, during the construction phase of the project, to ensure compliance with the permissible soil vibration limits of Article 88, par. 1b, of the current KMLE (Government Gazette 1227/B/14.6.2011) and of the standard DIN4150-3 which is imposed by it.
 - 4.2.5.6 The observance of the allowed vibration limits, during the use of explosives, to be confirmed with reliable measurements - vibration recorders.
- 4.2.6 Limitation of the effects on the natural environment and the flora, fauna of the area
- 4.2.6.1 Any damage to any forest vegetation should be kept to a minimum.
 - 4.2.6.2 Within six months from the end of the works in any independent part of the project to remove, under the responsibility of its owner, all kinds of construction site facilities (offices, workshops, etc.) and machinery, as well as all kinds of surplus materials, and non-reusable of them to be transferred to approved disposal areas, so that the space is returned to its previous state.
 - 4.2.6.3 Any damage to forest and non-forest vegetation, during the construction of the project to be limited to the absolutely necessary area and the interventions in the landscape to the absolutely necessary.

Operation phase

4.3 Atmospheric emissions

- 4.3.1 It is forbidden to burn both outdoors and indoors rubber or plastic materials and any other materials that may cause environmental pollution (JMD. 11535/93 (GOVERNMENT GAZETTE 328/A))»
- 4.3.2 Uncontrolled dumping of solid waste into the ground, subsoil or liquid waste recipient is prohibited.
- 4.3.3 To observe the emission limit values, as they are defined in Annex V, Part 1, par. 6 of JM 36060/1155 // E.103 (Government Gazette 1450/B/14.06.2013). From 1/08/2021 to comply with the emission limit values, as defined in Decision 2017/1442/EU.
- 4.3.4 The operation of the boilers for the production of hot water for use and heating of buildings to cover the requirements of Y.A. 189533/11 (Government Gazette 2654B), as in force.
- 4.3.5 The gas turbine of the plant must have dry type burners, low NOx emissions for the combustion of natural gas.
- 4.3.6 The exhaust gases of the plant to be channeled into the atmosphere through a chimney 50m high and 9.2m in diameter.

- 4.3.7 Observe the emission limit values for air pollutants (section 2) regardless of the quality of the fuel consumed.
- 4.3.8 Emission limit values refer to the final exhaust streams to be discharged into the atmosphere before dilution with ambient air.
- 4.3.9 Monitor and record data of the exhaust gases to be discharged into the atmosphere.
- 4.3.10 To measure on a continuous basis the concentrations of NO_x (as NO₂), CO and O₂, as well as the temperature and the pressure of the exhaust gases.
- 4.3.11 Calculate SO₂ emissions based on the operational characteristics of the plant and the composition of the gas that will be used as fuel in the unit.
- 4.3.12 The set of case-by-case sampling/measurements to be carried out in a specific location of the exhaust pipe (exhaust pipe or chimney)
- 4.3.13 To measure O₂ concentrations, use an automatic continuous meter in a flue gas or sample.
- 4.3.14 The range of scale used of the NO_x continuous measuring instrument (as NO₂) is greater than the expected average values.
- 4.3.15 The set of continuous measurement meters must be connected to an appropriate system for collecting, storing and processing the measurements.
- 4.3.16 Enter in digital form the valid average hourly and daily values of NO_x, CO and O₂ concentrations expressed in mg/Nm³ and% respectively (on a dry basis), at normal temperature and pressure conditions (273°K and 101.3kPa) and kept for five years.
- 4.3.17 In cases of long-term damage/cash maintenance, the institution should retain the sole responsibility for the restoration of its full operation within 20 calendar days.
- 4.3.18 In all sampling and measurement locations to have a suitable infrastructure for safe access and work.
- 4.3.19 To control the air quality of the wider area of the plant, to operate an air quality monitoring/recording system equipped with automatic analyzers for continuous measurement/recording of NO_x and NO₂ concentrations, with equipment for continuous measurement/recording of basic meteorological parameters and address wind, temperature), as well as with the necessary infrastructure for its proper operation (air conditioning, control/maintenance, calibration, etc.). The measurement of concentrations and other quantities to be carried out based on standard methods recognized by the EU. and if there are no internationally tested methods.

4.4 Liquid waste

- 4.4.1 It is prohibited to dispose of in any way untreated or insufficiently treated liquid industrial or municipal waste on the ground or at a surface recipient (Kleisoura stream).
- 4.4.2 Industrial liquid waste to be channeled through a closed pipeline to the liquid industrial waste treatment plant of MYTILINEOS SA for further processing and final disposal at sea.
- 4.4.3 To operate a system for continuous measurement of the supply of this waste (non-proportional and non-zero flow meter).
- 4.4.4 To confirm the correct operation of the plant to keep records in relation to
 - Water consumption data, water balance in the installation

- Recording the supply of industrial wastewater for treatment
 - Quantities of refill and discarded cooling tower water
- 4.4.5 Individual pipelines for industrial wastewater to be closed.
- 4.4.6 The waters with small impurities of mineral oils, after being separated in an oil separator with a capacity of at least 3 m³, to be channeled to the liquid industrial waste network of the aluminum production plant of MYTILINEOS SA. for further processing and final disposal at sea.
- 4.4.7 The oily phase of the oil separator is collected in barrels and is available for further treatment in an approved hazardous waste management body.
- 4.4.8 The oil separator must have a level control system.
- 4.4.9 Liquid waste resulting from the cleaning and maintenance of the steam turbine, heat recovery boiler and heat exchangers should be collected in barrels and disposed of in a licensed waste management facility.
- 4.4.10 The continuous sewerage of the cooling towers (discharges of cooling towers) to be discharged into the sea through a closed pipeline together with the discharged water of the adjacent plants.
- 4.4.11 Municipal waste (sewage) to be led through closed sewage pipes for treatment in the respective sewage treatment plant (biological treatment) of the aluminum production plant of MYTILINEOS SA. and the conditions for its proper operation are observed.
- 4.4.12 Uncharged rainwater and fire-fighting water, through a sampling well, can be discharged directly to the final marine recipient, through the rainwater network of the facilities of MYTILINEOS SA.
- 4.4.13 Take care to maximize water recycling.
- 4.4.14 Any leaks of the auxiliary materials used should be dealt with in accordance with the provisions of their Material Safety Data Sheets.
- 4.5 Solid and hazardous waste**
- 4.5.1 Attention should be paid to protect surface and groundwater from possible pollution.
- 4.5.2 The management of non-hazardous solid waste to be carried out in accordance with the provisions of JMD. 50910/2727/03 (Government Gazette 1909B), as in force.
- 4.5.3 The management of hazardous waste to be carried out in accordance with the provisions of JMD. 13588/725/06 (Government Gazette 383B), 24944/1159/06 (Government Gazette 791B) and JMD. 8668/07 (Government Gazette 287B) and of Law no. 4042/12 (Government Gazette 24A), as in force.
- 4.5.4 The management of waste that falls under the provisions of Law no. 2939/2001 (A 179) on alternative waste management, as in force, to be carried out in accordance with the provisions of this law and the regulatory acts issued under its authority and in accordance with the requirements and specifications of the respective, approved by YPEN (Ministry of Environment and Energy), alternative management systems. Particularly:

- 4.5.4.1 The packages of various materials used during the operation of the installation, to be delivered to a properly licensed collector for further utilization in an approved installation.
- 4.5.4.2 In case the operator of the activity introduces complete packages of raw materials or auxiliary materials, according to Law no. 2939/01 (Government Gazette 179A), as amended by Law. 3854/10 (Government Gazette 94A), is an obligated administrator regarding these packages.

It should therefore be contracted with an approved alternative management system.
- 4.5.4.3 The management of waste electrical and electronic equipment, waste batteries and accumulators and used tires to be done through approved alternative management systems, in accordance with the provisions of the JMD. I.P. 23615/651/E.103/14 (Government Gazette 1184B), of JMD. 41624/2057/E103/10 (Government Gazette 1625B) and of P.D. 109/04 (Government Gazette 75A).
- 4.5.4.4 The waste of used oils, from the maintenance and repair works of the E/M equipment of the plant, if they occur, to be temporarily stored, packed in suitable containers/barrels according to the provisions of JMD. I.P. 24944/1159/06 (Government Gazette 791B) and to be subsequently delivered, through a properly licensed collector of such materials, to an approved alternative management system for further processing, with priority given to their regeneration. Their management should be done according to the P.D. 82/2004 (Government Gazette 64A).
- 4.5.5 Municipal solid waste to be collected in special bins and collected periodically by a properly licensed competent body, in order to be taken to an approved landfill/landfill or other appropriate management.
- 4.5.6 All non-hazardous solid waste, temporarily stored, to be delivered to a carrier/contractor, who must have a license to collect and transport non-hazardous waste. If the waste is delivered for disposal or recovery (work D or R) within the country, the AEPO of the final recipient to allow the receipt of such waste at its facility. The operator must update the EIA file kept at the facility with the above-mentioned supporting documents, which are available for inspection whenever requested.
- 4.5.7 The configuration of solid waste storage areas in general should be such as to prevent soil contamination, due to the leaching of solids from rainwater.
- 4.5.8 Have adequate and appropriately trained staff to manage hazardous waste and deal with potential accidents.
- 4.5.9 The temporary storage of hazardous waste (eg lubricating oil wastes, oil separator sludge, etc.) to be done in closed containers with special marking and in a properly designed space, in accordance with the provisions of K.Y.A Η .Π 24944/1159/30-6-06 (Government Gazette 791 B).
- 4.5.10 All hazardous waste, unless otherwise provided in this Decision to be stored in premises that meet the requirements of Chapter 2 of the Annex of JMD. I.P. 24944/1159/06 (Government Gazette 791B), as in force. This waste must then be delivered to a carrier/contractor, who must have a permit for the collection and transport of hazardous waste. If the waste is delivered for disposal or recovery (work D or R) within the country, the AEPO of the final recipient to allow the receipt of such waste at its facility. The operator must update the EIA file kept at the facility with the above-

mentioned supporting documents, which are available for inspection whenever requested.

- 4.5.11 For the delivery of waste to third parties, have the relevant documents to monitor the further management of waste off-site. In order for hazardous waste, to properly fill in the "Identification Form for the collection and transport of hazardous waste", according to the provisions of JMD. 13588/725/06 (Government Gazette 383B) and 24944/1159/06 (Government Gazette 791B), the N. 4042/12 (Government Gazette 24A) as amended and in force.
- 4.5.12 The Project Owner keeps register, according to article 20 of N. 4042/2012, and article 11, par. 4.a of JMD. 13588/725/2006 in combination with the provisions of JMD. 24944/1159/06, in order for hazardous waste.
- 4.5.13 Mixing hazardous waste with non-hazardous waste is prohibited.
- 4.5.14 The operator must submit electronically through the platform of the Electronic Waste Register (HMA) (<http://wrm.ypeka.gr/>) the annual Waste Producer Report of each year until the end of March of the following year.
- 4.5.15 Do not use oils containing polychlorinated biphenyls or triphenyls (PCBs or PCTs).
- 4.5.16 The use of asbestos/asbestos cement materials is prohibited [JMD. 82/2003 (GOVERNMENT GAZETTE 1045B)].

4.6 Noise

- 4.6.1 The noise level measured at the site boundaries of the installation shall not exceed the limit of section 2 of this Decision.
- 4.6.2 The gas turbine must have a soundproof housing.
- 4.6.3 An exhaust cone must be installed at the outlet of the gas turbine to reduce noise in the surrounding area.
- 4.6.4 Gas turbine installations to operate inside a noise absorption cabin.
- 4.6.5 In case that the permissible noise limit is exceeded at the boundaries of the plant field additional anti-noise measures in individual parts of the installation must be taken.

4.7 Other environmental conditions

- 4.7.1 The traffic lanes of the vehicles should be cemented or asphalted and should be cleaned with mechanical means at regular intervals.
- 4.7.2 Appropriate fire safety measures should be taken and observed.
- 4.7.3 Have a fire extinguishing system installed, approved fire safety study.
- 4.7.4 Comply with applicable fire detection/firefighting regulations. To take all the necessary fire protection measures for the safe operation of the facilities according to an approved fire protection study by the competent Fire Service.
- 4.7.5 To manage the chemicals used in the facility, have the Safety Data Sheets archived in its most up-to-date version. Observe the safety measures referred to in them for safe storage and to limit or eliminate the environmental impact of any leakage.

- 4.7.6 Transformers shall be fitted with suitable waterproofing basins with a watertight floor and a capacity at least equal to the oil content of the transformers.
- 4.7.7 Observe the operating and maintenance specifications of the transformers and especially those concerning the prevention of leaks (oils, etc.), the safe operation and the avoidance of electric arcs (fire protection).
- 4.7.8 Carry out regular inspections of transformers and their connections to the mains to mark any leaks (oils, etc.), damage, etc.
- 4.7.9 Oil leaks from transformers to be collected and, where appropriate, managed in accordance with the provisions of section 4.4 of this Decision.
- 4.7.10 The installation to implement an environmental management system according to ISO 14001: 2015.
- 4.7.11 Take measures to prevent accidental discharges, on land and water, from the management and storage of the chemicals used.
- 4.7.12 Carry out continuous training of staff in order to protect the environment and the handling, storage of hazardous materials.
- 4.7.13 The diesel oil storage tanks to be used in the generating sets and the fire pumps must be placed in a concrete or metal safety basin that will have a capacity sufficient to collect and retain all the quantity contained in the tanks in the case of tanks, or the walls of the tanks.
- 4.7.14 Hydrogen gas to be supplied to the installation by cylindrical cylinders that will be located in a shed.
- 4.7.15 The storage tank of the ammonia solution should be located in a covered outdoor area, in a safety basin, while the supply of the ammonia solution should be done with a dosing pump.
- 4.7.16 The sodium hypochlorite should be stored in a tank that will be located indoors, in a safety basin and the NaOCl solution will be supplied with a dosing pump.
- 4.7.17 The stored quantities of lubricants should be stored in the respective area of the Energy Center (storage of lubricants, oils, etc.) which has a concrete safety basin, with full marking, lighting, etc. Observe all storage instructions, as provided by the respective Safety Data Sheets.
- 4.7.18 The stored quantities of transformer oils should be in metal containers kept in the existing space of the Energy Center (storage of lubricants, oils, etc.), which has a concrete safety basin, on pallets, with full marking, lighting, etc.
- 4.7.19 Nitrogen storage cylinders should be mounted on suitable bases under a shed.
- 4.7.20 Cylindrical carbon dioxide cylinders will be mounted on suitable bases in a special area.
- 4.7.21 All liquid substances (petroleum, transformer oils, L/L lubricants, ammonia and sodium hypochlorite solutions) should be stored in containers in suitable safety basins that can collect any leaks and prevent substances from escaping into the environment.
- 4.7.22 The installation must have gas leak detection systems.
- 4.7.23 To reduce the risk of fire or explosion
 - 4.7.23.1 The equipment of the installation, in parts that can form an explosive atmosphere due to leakage of natural gas or other flammable gas (such as hydrogen) will meet the requirements of the ATEX Directive.

- 4.7.23.2 The installation must have emergency switches (ESD - Emergency Shut Down) in case of fire or fuel leakage. Activating the emergency switch will cut off the gas supply to the underground gas supply pipelines.
- 4.7.23.3 Prediction in case of a significant earthquake that the gas turbine stops automatically and the gas valve closes automatically.
- 4.7.23.4 The installation must have lightning protection and ground grid throughout the bearing area
- 4.7.24 To apply the best available techniques mentioned in the considered Environmental Impact Assessment that accompanies the present, as well as in the relevant reference texts of the European Commission, to the extent that they concern the specific installation.
- 4.7.25 Increased protection and preparedness measures should be observed during the execution of the new works for the addition of the plant to the existing energy center as well as during its operation, so as not to endanger the biodiversity of this area and generally to prevent any case of its burden.
- 4.7.26 During the construction of the projects but also during the operation of the new Power Generation Plant, the installation must comply with the provisions of N. 743/77 (AD 319) as codified with P.D. 55/98 "Protection of the marine environment" (A '58), and to take all necessary measures, as well as any additives that will be indicated by the competent Port Authority, to avoid sea pollution.
- 4.7.27 Provision for the existence of equipment for the prevention and control of marine pollution (floating dams, absorbent materials, etc.), approved type, as well as approved, compatible with the Local Plan of the relevant Port Authority, "Emergency Plan" of the coast. installation (FACILITY CONTINGENCY PLAN - FCP) that will be applied when dealing with possible incidents of sea pollution, according to Law no. 2252/94 (AD 192) and the P.D. 11/02 (AD 6) that may be caused by the operation of the Plant.
- 4.7.28 Collection and legal disposal, in accordance with current legislation, of all petroleum products, sewage, waste, all types of liquid and solid waste and any kind of pollutants produced either during the construction of the described projects or during the operation of the facility.
- 4.7.29 Take appropriate measures to prevent leaks into the sea, which may cause pollution in the event of rainfall due to the transport/drift of materials to the adjacent marine recipient or in the event of possible system failures from the premises.
- 4.7.30 It is forbidden to dump any materials/substances in the sea, except in exceptional cases after relevant licensing.
- 4.7.31 The materials of construction, impregnation, coating, painting, welding of the submarine seawater discharge pipe should not include substances that are considered harmful/dangerous for the marine and the aquatic environment in general, according to the current legislation.
- 4.7.32 In order to protect the submarine pipeline from a possible accident (navigation, earthquakes), it must be planned to prevent and deal with it. Particular emphasis should be placed on the issue of regular inspection and periodic maintenance of the submarine part of the network.
- 4.7.33 To make a systematic monitoring of the quality of the sea waters of the area and in general of the environmental effects by carrying out relevant measurements by the

legally competent services in collaboration with the factory MYTILINEOS SA. (former ALUMINUM SA).

- 4.7.34 To comply with the provisions of Law 3028/2002 "On the protection of Antiquities and Cultural Heritage in general" and Law 2971/2001 "Aegialos, beach and other provisions". In case of planning new or additional projects on the seashore, the beach or the sea, the relevant Studies should be sent to the Ephorate of Marine Antiquities. To comply with the terms and conditions set by the Directorate of Prehistoric and Classical Antiquities of the Ministry of Culture and Sports:

- The project will be carried out in the position declared responsibly in the attached drawings.
- The construction works of the new plant will not be extended to the last natural terrace formed on the north side of the hill Kalogeriko - Makria Pezoula, as the site preserves a variety of architectural remains for the protection of which will be cleaned, imprinted and rescue excavation.
- Any excavation work, covering trenches or landscaping will be carried out after approval and under the strict supervision of the competent Ephorate of Antiquities of Viotia.
- Any modification of the approved EIA will be submitted to the competent Ephorate of Antiquities of Viotia for approval
- In case of finding antiquities, the works will be stopped immediately, in order to carry out a rescue excavation, on the results of which the further course of the project will depend. The cost of a possible excavation (recruitment of the necessary scientific and technical staff, at the suggestion of the Ephorate of Antiquities of Viotia), as well as the cost of maintenance, study and publication of the findings, will be borne by the project budget, according to the provisions of Law 3028/02 , Article 37

"For the protection of Antiquities and Cultural Heritage in general".

- 4.7.35 To comply with the terms and conditions set by the Directorate of Forest Protection of YPEN: This is an activity that will be developed in two sections of land (4,600 + 45,000 sq.m.) that have been expropriated for public benefit (establishment of the Aluminum industry) for and at the expense of "Aluminum of Greece SA." The first section of 4,600 sq.m. is located in a non-forest area and consequently falls outside the scope of competence of the forest service, while the second part of an area of 45,000 sq.m. is located in a forest area of par. 2, art. 3 v. 998/1979, as amended and in force. This area falls within a protected area of n. 3937/2011 (AD 60) (as corrected on the basis of the above 67 and 70 relevant documents of the Service responsible for the protected areas of YPEN) with code GR2530007 and name CORINTHIAN GULF, has been prepared for this study Special Ecological Assessment according to the provisions article 10 and 11 of n. 4014/2011. Regarding the building facilities (mainly storage areas for the service of Aluminum SA) in the northeastern part, applying the provision of par. 7 of art. 3 of Law no. 998/79 as added to article 3 with paragraph 1 of article 154 of law. 4389/2016, the provisions of no. 176737/6327/6.12.2018 circular instruction of YPEN (ΑΔΑ: 68Β04653Π8- ΑΝ9), if they are accompanying projects of the project under development.

- This project is a permissible intervention in accordance with the provisions of paragraph 53 of Law. 998/1979 as in force, in combination with paragraphs 2 and 4 of article 45 of the same law. A necessary condition for the continuation of the

procedure, after the issuance of the present, is the modification of house no. 124363/16.04.2010 AEPO, on the subject of the 400kV Electricity Transmission Line of THI Agios Nikolaos and the revocation of the relevant intervention approval that had been duly issued then.

- After the issuance of AEPO, and after observing the provisions of the immediately preceding paragraph, an act of an informative nature is issued during the procedure of paragraph 6a, in accordance with the provisions of paragraph 8 of article 45 of Law 998/1979 as applicable, for the payment of the consideration of use and the obligation of reforestation or afforestation of an area equal to that of the intervention, alternatively with reforestation, execution of forestry works according to article 1, Law no. 4467/2017.
- Any forest products produced are transported in accordance with the provisions of forest legislation and are disposed of at the suggestion of the relevant Forest Authority. In particular, the harvesting of forest products on the areas with forest vegetation, is carried out in accordance with articles 66, 131 and 177 of law d/of 86/69 as in force, will be carried out under the supervision of the forest service and the forest products will be disposed of. after compilation and approval of a logging table.
- The beneficiary takes care of the complete removal of the excavation products, is responsible for possible damage to third parties and undertakes the obligation to take all necessary fire protection measures of the surrounding forest vegetation. Any unsuitable excavation products are deposited in places (storage chambers), which will be indicated by the relevant forest authority and will be included in the status of permitted intervention, while then these areas must be restored with appropriate planting.
- The disturbed forest vegetation of the disturbed areas will be restored, by planting or sowing the appropriate suitable ones in the flora of the species area, according to the duly considered and approved phytotechnical restoration study of the area, as defined in paragraph 2 of article 4 of no. 15277/23.3.2012 Min. Decision (Government Gazette BD1077). The care of the plants continues for at least three (3) years from their planting, under the responsibility of the company.
- Take measures to protect the newly established vegetation to prevent drying, necrosis or secondary infestations, as well as measures to address the infestations or replace them with healthy, robust and more resilient individuals.
- Prohibition of dumping of waste materials in streams or torrents to protect water area and riparian forest vegetation.
- Particular attention should be paid to the avoidance of strong disturbances, the creation of slopes will be properly shaped and achieved on the one hand to prevent landslides and the occurrence of erosive phenomena, on the other hand to facilitate the restoration of vegetation.
- In case of non-completion of the project, its abandonment or change of the purpose for which the opinion is given, the penalties defined in par. 12 of Article 45 of Law 998/1979 as in force.
- The State does not bear any responsibility for any eviction of the area or part of it, by anyone.

- Following the drafting of the installation protocol, the demarcation and placement of permanent landmarks of the operation surface follows, in the presence of the interested parties.
- In case of non-compliance with the above, measures are taken that incur criminal and administrative sanctions, based on the applicable forest provisions.
- The monitoring and implementation of this decision is assigned to the Livadia Forest Service.

4.7.36 To comply with the terms and conditions set by the Department of Natural Environment and Biodiversity Management:

- Adhere to the contingency measures and the relevant monitoring program.
- Continue systematic monitoring of benthic invertebrates and take action if there is a serious trend of adverse effects that is not reversed by seasonal changes in temperature.
- To implement the proposals of ELKETHE according to the 5-year monitoring report of the marine environment.
- To capture the types of habitats in the gulf of Antikyra.
- To send to our service an annual monitoring report regarding the physical parameters of the water column, phytoplankton, zooplankton, benthic biodiversity as well as the condition of the habitats where they are located in the gulf of Antikyra for the habitats:
 - ο 1120*: Seabed areas with vegetation (Poseidonia) - Priority habitat.
 - ο 11170: Mediterranean Reefs
 - ο 1110: Sandblasting that is constantly covered by shallow seawater

4.8 Restoration, partial or gradual or permanent cessation of the activity

- 4.8.1 After the final cessation of the operation of the plant, the operator must remove any stored/accumulated raw materials, products and waste and carry out restoration works on site. The mechanical equipment should be utilized as much as possible, in whole or in part, recycled and in any case disposed of in accordance with the applicable provisions.
- 4.8.2 In case of soil contamination from hazardous waste, care should be taken for its remediation, in accordance with the existing provisions (article 12 of JMD. 13588/725/06, Government Gazette 383B and P.D. 148/09, Government Gazette 190A). In general, in case of environmental damage or threat of damage, the provisions of PD 148/09 (Government Gazette 190A) on environmental liability apply.

4.9 Emergencies of pollution or degradation of the environment

- 4.9.1 In cases of pollution incidents, the competent services of the Ministry of Environment and Energy and the relevant Region should be informed by sending a relevant fax within the first 24 working hours from the occurrence of the incident.

- 4.9.2 In case of defective operation or failure of the anti-pollution equipment, the systems for monitoring/recording the emissions of air pollutants, and if the normal operation is not restored within 48 hours, to be informed by sending a relevant fax within 24 hours after the end of the 48 hour period. Ministry of Environment and Energy and the relevant Region. Relevant information should be provided even after the restoration of normal operation.
- 4.9.3 The company should immediately address the repair of malfunctions or failures mentioned in section 4.9.2 and in cooperation with the competent Services to resolve environmental issues of emergency nature for the treatment of which there is no provision in this Decision.
- 4.9.4 The body of the activity to deal directly with the incidents of damage or malfunction of the anti-pollution equipment and the instruments for measuring the environmental parameters.
- 4.9.5 If during a calendar year more than 10 days of measurements are canceled (days with more than three invalid average hourly values due to defective operation or maintenance of the continuous metering system), the company is obliged to immediately take appropriate measures to improve/restore its reliability. continuous monitoring system.
- 4.9.6 In cases of recording exceeding the limit values of air quality and emissions of air pollutants, the Project body must inform in writing by sending a relevant fax within 24 hours after the end of 24 hours, the competent services of the Ministry of Environment and Energy and the relevant Region to make appropriate interventions in the operation of the plant to remove the excess. Relevant information should be provided even after the restoration of normal operation.
- 4.9.7 In order to deal with emergencies that are significantly aggravating for the environment, due to the problematic operation of the Plant, the competent Services in each case with a relevant Decision may intervene by imposing restrictions and/or interruption of the operation of the Plant.

4.10 Monitoring program and reports

- 4.10.1 Regularly check the proper operation of all anti-pollution systems (including measuring instruments) in accordance with the manufacturer's instructions. To record their operating data (temperature, differential pressure) continuously in a digital database. The data must be kept for at least five years.
- 4.10.2 The sampling and analysis of the parameters should be performed according to the standards (CEN) and in case there are no CEN standards to be applied the ISO standards or national or other international standards, which ensure the provision of data of equivalent scientific quality.
- 4.10.3 Keep the following calendars and keep them for five years:
 - 4.10.3.1 Log of operation/maintenance/calibration of the monitoring/recording instruments of the quality of the atmosphere of the wider area of the Plant.
 - To record data of the periodicals and any extraordinary checks of the good operation/maintenance/calibration of the measuring instruments of the air quality monitoring station of the wider area.

- Record the date of the audit, the type of audit, the audited bodies, any observations and the name of the auditor.
- 4.10.3.2 Log of operation/maintenance/calibration of the meters and recording of the emissions of atmospheric pollutants of the plant.
- To record data of the periodicals and any extraordinary checks of the good operation/maintenance/calibration of the emission meters of the Plant.
 - Record the date of the audit, the type of audit, the meters counted and the name of the auditor.
 - To record the operational data of the gas turbine that is systematically monitored to check its proper operation.
 - To record the results of the periodic measurements of the plant.
- 4.10.3.3 Water log for industrial use.
- Record the incoming quantities of water on a daily basis.
 - To record the quantity of liquid industrial waste that is given for treatment in the liquid industrial waste treatment plant of MYTILINEOS SA.
- 4.10.3.4 The calendars of sections 4.10.3.1 to 4.10.3.3 may, at the discretion of the Project Authority, be a single calendar or kept in digital form.
- 4.10.4 To record the liquid industrial waste supplies in printed or digital form.
- 4.10.5 The company is part of the activities of Annex I of JMD. referred to in the preamble to this Decision with a.a. (21). The operator is therefore required to comply with Regulation 166/2006 of the European Parliament and of the Council of 18 January 2006 establishing a European Pollutant Release and Transfer Register and amending Directives 91/689/EEC and 96/61/EC of the Council ", as well as with the other requirements of the above JMD. within the time limits referred to therein.
- 4.10.6 Within the first quarter of each year, the operator should submit to the competent Environmental Service of YPEN and to the Environmental Service of the Regional Unit of Viotia, which includes processed data of the measurements of the monitoring system/recording of the air quality of the wider area of the Plant, measurements/analyzes of atmospheric emissions and solid waste, comparisons of these data with the limit values referred to in this Decision or any other (eg of the international literature) regarding the parameters for which limit values are not mentioned in this Decision, as well as any suggestions for improving anti-pollution systems. Specifically, the data must relate to at least the following:
- Atmospheric emission measurements. Includes average daily, monthly and annual values of concentrations (in mg/Nm³) of CO, NO_x, O₂ content (in% by volume) and flow rate, pressure, humidity of the exhaust gases. The valid average values are determined in accordance with Part 3 of Annex V of JM 36060/1155/E103/13 (Government Gazette 1450B).
 - The measurements of monthly and annual CO, NO_x emissions expressed in tons (t) and the corresponding fuel consumption as well as the generated electricity.
 - The measurements of the monitoring system/recording of the quality of the atmosphere of the wider area of the Plant (the completion should be done according to the model posted on the website of YPEN (www.ypeka.gr)).

- Any exceedances of the atmospheric emission limit values as well as the dates of recording of the exceedances, the possible causes and any remedial measures.
- The level of energy efficiency
- Data on water use
- The annual waste generator report
- E-PRTR report in application of Regulation 166/2006/EC

4.10.7 To prepare and implement a Program for Control and Quality Assurance of measurements. This program must be in printed form and: a) include the actions to ensure the maximum possible reliability of the measurements such as: use of appropriate measuring equipment, measuring conditions, control of measuring equipment (eg calibration, calibration, zero check and default value-span), measurement processing, operation-calibration logs, operator indication, etc., b) be based on international experience and practice and relevant instructions of the measuring equipment manufacturer, c) ensure that sampling, Pollutants analysis and testing of measuring equipment are performed according to CEN standards. In the absence of CEN standards, apply ISO or national or other international standards that ensure the provision of data of equivalent scientific quality, d) provide for the recording, in a relevant file, of any deviations/failures of the measurements with the respective reasoning, e) provides for the observance of the relevant documents in case of measurements/control of metering equipment by third parties. This program should be prepared within six months from the issuance of this, to be in the file of the operator of the installation and to be at the disposal of the competent authorities, whenever requested.

4.10.8 At the end of each semester, starting from January 1 and within two months (until August 31 for the first half of each year and until February 28 for the second half of each year) the Project Authority must inform in writing the competent Services of YPEN and the relevant Region for any exceedances of the limit values of air quality recorded in the monitoring/recording system, taking into account the permitted exceedances for any interventions in the operation of the Plant in order to reduce pollution levels and for any exceedance of the emission limit values of air pollutants by the Plant.

4.10.9 The operator is obliged to submit to the licensing authority, a responsible statement of Law 1599/1986 (Government Gazette 75 Α), as in force, stating:

- i) the quantities of hazardous substances and mixtures that exist or may exist in the installation and are included in Annex I of JMD. 172058/2016 (Government Gazette 354 Β), taking into account note 5 of Annex I of the same JMD, as well as,
- ii) if the installation belongs to the upper tier, or the lower tier (KYA 172058/2016 (Government Gazette 354 Β)) submitting relevant documentation

4.10.10 The operator of the installation must, within the first four months of the year, submit in the form indicated by the licensing authority, the information required for the operation of the installation, in order for it to meet its European obligations (EU REGISTRY) as a member , as set out in Commission Implementing Decision (EU) 2018/1135 of 10 August 2018 "on determining the type, format and frequency of information to be made available by Member States for reporting on implementation of Directive 2010/75/EU of the European Parliament and of the Council on industrial emissions "

4.11 Control of compliance with the environmental conditions of AEPO

- 4.11.1 This Decision is valid provided that the Operator will submit to the DIPA/Ministry of Environment and Energy the relevant electricity generation license of RAE for a power of at least 775MW.
- 4.11.2 The AEPO and the relevant certified EIA that accompanies it, must be available in the area of the examined activity and must be presented by the obligated body to each competent, in accordance with the current legislation, control body.
- 4.11.3 The operator of the activity has the obligation:
- to keep data (invoices, contracts, various documents, data registers, etc.), on the basis of which its compliance with the environmental conditions of AEPO will be proven. This information should be available at the site of the activity.
 - allow access to any competent audit body.
 - to provide all required data and information.
 - to facilitate the control and to comply with the recommendations - suggestions of the competent control bodies in compliance with the provisions of the current environmental legislation.
- 4.11.4 Any issues that arise during the implementation of the AEPO and are not covered by its terms, are resolved based on current legislation (national and Community) and where this is not possible based on the relevant considered modification study.
- 4.11.5 In case of causing any pollution or other degradation of the environment or violation of the terms of AEPO, the operators are imposed the sanctions provided by the provisions of articles 28, 29 and 30 of Law 1650/86, as amended by Law. 3010/02, Law no. 4014/2011 and Law. 4042/2012 and are valid.

In other respects, the terms, measures and restrictions described in the considered Environmental Impact Assessment that accompanies the present apply, provided that they do not contradict the provisions of the above paragraphs.

4.12 Period of validity of AEPO - Other provisions

- 4.12.1 This Decision is valid for ten (10) years from the issuance of this without prejudice to article 2, par. 8a and 9 of Law no. 4014/11 (Government Gazette 209A) and article 17 par. 3 of JMD referred to in the preamble to this Decision with a.a. (21) and provided that in the meantime there has been no change in the data on the basis of which this is issued.
- 4.12.2 The operator of the activity, in time before the expiration of AEPO, and if he wishes to continue its operation, must return with a newer application to the service responsible for the environmental licensing, in order to comply with the provisions of article 5 of N . 4014/2011 (GOVERNMENT GAZETTE 209A)
- 4.12.3 This Decision shall remain in force provisionally and after its expiration, until the issuance of the renewed or amended decision, provided that the obligated body requests its renewal or amendment in time at least two months before its expiration, submitting the required supporting documents. .
- 4.12.4 In order to modernize, improve, expand or modify the activity, the observance of article 6 of the Law is required. 4014/2011 (GOVERNMENT GAZETTE 209A).

- 4.12.5 In the event that regular and extraordinary environmental inspections reveal serious environmental degradation problems or if environmental effects are observed that are not foreseen in the considered modification study accompanying this Decision, additional environmental conditions are imposed or the terms of this Decision are amended as specified in this Decision. par. 9 of article 2 in combination with article 6 of Law no. 4014/2011 (Government Gazette 209Α), not excluding any compensatory measures or fees within the meaning of par. 1 of article 17 of the same law.
- 4.12.6 AEPO does not cover safety issues against large-scale accidents or the safety and hygiene of staff, nor does it release the obligor from the obligation to supply him with other permits, which may be provided by the current legislation, issued without examining the ownership titles of the site of performance of the activity, as well as the terms and restrictions of construction of the stadium and does not imply legalization of any arbitrary existing structures for which the provisions of the current legislation on arbitrary constructions apply.
- 4.12.7 AEPO is valid subject to the fact that it does not oppose any urban planning and other special provisions that may prevail.
- 4.12.8 After the issuance of this Decision, the company "MYTILINEOS SA" to submit a Technical Report to our Service documenting that the capacity of the existing infrastructure to be used, meet the operating requirements of the new plant.
- 4.12.9 This Decision is also an approval of the intervention of the sixth chapter of Law no. 998/79 as amended and in force, in accordance with the above 69 relevant, for the parts of the project that are executed in forest areas, according to article 12 of Law no. 4014/2011, paragraph 4 of article 45 of L. 998/78 as amended by article 36 of L. 4280/2014 and article 3 of YA 15277/2012. As defined in no. 69 above relevant, the intervention in forest areas for the activity in question, is permissible according to par. 5 of art. 53 of Law no. 998/1979 after the payment of consideration for the year, in accordance with the par. A § 6 of art. 45 L.998/79 as replaced and supplemented by art. 36 of L.4280/14 and MD 117653/6833/28-11-14 (Government Gazette 3302/ΒΔ/9-12-14), as amended by MD 156157/2343/27-4-2017 (Government Gazette 1942/ΒΔ/2-5-2017), as well as reforestation or afforestation of an area of the same area as the one in which the intervention will be approved, according to art. 45 § 8 L.998/79, as replaced by art. 36 N. 4280/14 and supplemented by art. 41 and 1 of Law no. 4409/16 and L.4467/17 respectively.
- 4.12.10 The publication required by law of AEPO is made by posting it on the special website, at the website www.aepo.ypeka.gr (according to the provisions of article 19a of Law no. 4014/2011, as well as in 21398/2012 joint ministerial decision).

Attachment:

Considered EIA

THE MINISTER OF ENVIRONMENT AND ENERGY
KOSTIS HATZIDAKIS