



İZAYDAŞ

İZMIT WASTE AND RESIDUE TREATMENT,
INCINERATION AND RECYCLING CO INC.

Clean **Environment**
Healty Society

2020 Annual Report



**KOCAELİ
METROPOLITAN
MUNICIPALITY**

Dear fellow citizens,

As İZAYDAŞ, we are aware of how important our work is for human health and the environment.

We are proud to be pioneering waste treatment company in Turkey with our works respectful to people, society and the environment, our trained and competent staff, our transparent, clean and accountable management approach and our customer-oriented service approach.

We follow the world, keep up with all technological innovations in the sector, evaluate all kinds of opinions and suggestions that will contribute to our corporate development and take all kinds of measures to protect the ecological balance.

We serve not only in Kocaeli, also in the whole Turkey.

Moreover, being aware of our social responsibility; as the leader of the sector, we work in a future-oriented manner with our environmentally friendly service approach.

Breaking records and competing only with itself each year in domestic waste disposal, waste transportation and hazardous waste incineration, İZAYDAŞ, once again demonstrated how important of a company it is in the Covid-19 pandemic that affected our world and our country. İZAYDAŞ, which produces its own energy and therefore is self-sufficient, managed the pandemic process in the best, most accurate and healthiest way.

İZAYDAŞ, where “Mask – Distance - Cleaning (TMM)” rules are applied to the maximum, came to the fore as a facility where the wastes of pandemic hospitals and quarantine dormitories in Kocaeli were also disposed of during the pandemic process.

In addition to the pandemic wastes in the relevant services of the hospitals, tons of Covid-19 suspected waste collected from different points of the city were also disposed of in İZAYDAŞ in a way that would not pose a danger to the environment.

Due to the pandemic, we nationally suffered a lot in 2020, but we started 2021 with great hopes. Kocaeli's brand value, İZAYDAŞ, will continue to serve national and international companies in 2021 with a brand-new understanding, purpose and determination. While continuing to contribute to Turkey also in the New Year, İZAYDAŞ will never compromise with its mission of “Clean Environment, Healthy Society.” İZAYDAŞ, which is also considered as a school that trains expert personnel for the sector, from its higher senior executive to all employees, will remain working devotedly to produce services and be the number one in the sector for the people of Kocaeli. In 2021, I wish health, peace and happiness for the people of Kocaeli, our nation and the whole world. I would like to express my endless gratitude to all my colleagues and our people...

Assoc. Dr. Tahir BÜYÜKAKIN
Mayor of Kocaeli Metropolitan
Municipality

Greetings,

We have left a year of hardships for our country and the whole world. As İZAYDAŞ, we carried out productive studies in 2020 without falling below our success bar from previous years. We work with great devotion and effort to carry İZAYDAŞ to the future with our friends at all levels in our company.

Due to the nature of our business, we have to carry out our activities no matter what conditions we are in. As İZAYDAŞ, we successfully managed the global pandemic process within ourselves. In this period, the issue of medical waste came to the fore for us, additional to our routine of industrial waste and domestic waste. When we look at the annual averages in the amount of medical waste, there was an increase of approximately 25 percent compared to the previous years. Although we were directly collecting medical waste from pandemic hospitals, we did not have any problems because we did our job with the right techniques.

This is our 25th year as the leader company in waste management in Turkey. We spend our energy to expand our horizons and to follow new ideas and sectoral developments in the world with our experience and determination.

With the developing technology, we continued our investments that we have made in recent years at full speed in 2020. With these important investments, we continue to undertake studies that are sensitive to the environment and human health, that add value to the country's economy, and at the same time contribute to our country's goals in this field with the electrical energy we produce.

As a result of these studies, if we make an evaluation based on the figures, the amount of hazardous waste incinerated was 36,751 tons, while 16,235,000 kWh of electrical energy was generated as a result of the incineration of these wastes. The energy generated corresponds to the electrical energy that 10,000 households will consume in a year.

In the municipal waste landfills, a total of 663,720 tons of domestic waste was landfilled and disposed in 2020. In this context, 33,663,240 kWh of electrical energy was generated in the Landfill Gas Power Generation Facility. This generation meets the annual electricity need of approximately 22,000 households.

With our marine services, we have collected 13,033 cubic meters of waste from 3,454 ships that came to Izmit Bay, providing waste collection services for these ships. Our laboratory, on the other hand, reached a very good achievement with the investments we made, and carried out 3,309 analyzes in 2020.

I would like to thank each of my friends who continue their work without interrupting any technical work, especially in this difficult year. I would like to thank our devoted team, especially, our customers who always support us, our Chairman of the Board, Assoc. Dr. Mr. Tahir BÜYÜKAKIN, our Board members, Kocaeli Metropolitan Municipality officials and all our stakeholders.

Muhammet SARAÇ
İZAYDAŞ General Manager

MANAGEMENT OF INTEGRATED MANAGEMENT SYSTEM

Certification Body Audits (Third Party Audits)

Customer Satisfaction - Complaint Management System surveillance audit was carried out by the certification body Kalitest on 19.03.2020 by remote access method. The compliance of the management system applications with the ISO 10002: 2014 standard was audited; the audit was successfully completed, and the continuation of the certificate was decided.

The integrated management system surveillance audit was carried out on 30.12.2020 by the certification body Kalitest with remote access method. The compliance of the management system applications with ISO 9001: 2015, ISO 14001: 2015 and OHSAS 18001: 2007 standards was audited, the audit was successfully completed, and the continuation of the certificates was decided.

The Integrated Management System was established in 2006 with the integration of ISO 9001 Quality Management System, ISO 14001 Environmental Management System and OHSAS 18001 Occupational Health and Safety Management System, document renewals and additional certifications are given in the table below.

Customer Audits (Second Party Audits)

Compliance of management systems applications with the relevant standards is also audited by customers and İZAYDAŞ cares about these audits in terms of the continuity of their customers' service procurement. Due to the pandemic process measures in 2020, customer audits were generally carried out by filling out supplier surveys/question lists/evaluation information forms and our relevant customers and our contact dates within the scope of customer audit are given in the table below.

| Company | Date |
|--|---------------|
| Sanovel İlaç San. ve Tic. A.Ş. | February 2020 |
| B-PLAS Bursa Plastik Metal İnş. Turizm San. ve Tic. A.Ş. | February 2020 |
| Shell Petrol A.Ş. | March 2020 |
| AbbVie Tıbbi İlaçlar San. ve Tic. A.Ş. | August 2020 |
| Gül Ecza Deposu San. ve Tic. A.Ş. | July 2020 |
| Geringe Maquet Tıbbi Sistemle San. ve Tic. A.Ş. | October 2020 |
| Mene Health Group | November 2020 |
| Takeda İlaç Sağlık San. Tic. Ltd. Şti. | November 2020 |
| Takeda Farma Sağlık Ürünleri San. ve Tic. A.Ş. | November 2020 |
| Deva Holding A.Ş. | December 2020 |

On behalf of our customer Pirelli Otomobil Lastikleri A.Ş., the sustainability social audit was carried out by the certification body Bureau Veritas on 30.11 - 01.12.2020 via video conference method.

Internal Audits (First Party Audits)

Integrated Management System internal audits are carried out by internal auditors in the company pool, and compliance of management system practices with the relevant standards is audited. The compliance of the quality, environment and OHS management systems was audited between 19 - 23.10.2020, and the compliance of the customer satisfaction - complaint management system was audited on 26.11.2020. Audit opening and closing meetings were held by video conference method. Nonconformities seen in the system and applications were reported by the audit teams and necessary corrective actions were initiated and followed up. Implementation is carried out in accordance with the standards and PR-03 Internal Audit Procedure.

Customer Satisfaction Survey

The customer satisfaction survey was carried out by the research company through outsourcing, survey and face-to-face interviews. The research was applied to four customer groups: loyal customers, potential customers, customers receiving laboratory service and customers receiving proficiency testing services. The results of the research were reported by the research company from which the service was provided and an informative presentation was made on 05.02.2020. According to the results, the rate of customers finding IZAYDAŞ successful is 96.2% and customer satisfaction is 81 points. According to the results of the research, issues in need of improvement were followed by action planning.

Customer satisfaction survey for 2020 is carried out with outsourcing within the same scope, and field work continues as of January 2021.

Customer Notifications Tracking

In 2020, 12 suggestions, requests and complaint notifications from our customers and the immediate environment were recorded and evaluated. Since 6 notifications included complaints by customers about the services provided, they were handled within the scope of ISO 10002 Customer Complaint Management System with a customer-oriented management approach.



February 2020 Management Review Meeting



July 2020 Management Review Meeting

In order to maintain the suitability, adequacy and effectiveness of the integrated management system for its purpose, a management review meeting was held on 27.02.2020. At the meeting, previous meeting decisions, changes in internal and external issues related to management systems, policies, targets, performance indicators, monitoring and measurement results,

nonconformities, corrective actions, audit results, risks, opportunities, improvement areas and resource needs were evaluated, decisions were made for the continuity of the system and improvements.

MANAGEMENT OF ENERGY MANAGEMENT SYSTEM

Energy Management System Certification Audit

For the year 2020, the certification body for the Energy Management System's transition to ISO 50001: 2018 standard was audited by the certification body KALİTEST under the supervision of TÜRKAK on 27.08.2020. As a result of the audit, the documents showing the compliance of the Energy Management System applied with the relevant standard were renewed and our certificate was renewed until 10.12.2023.

Internal Audits

December, November, August 10, 2020 and November 27-December 04, 2020 audits were carried out by planning an internal audit of the Energy Management System within the scope of the ISO 50001 standard and the PR - 03 internal audit procedure. Corrective preventive actions have been initiated by the audit teams regarding the nonconformities observed in the system and practice, and improvement actions have been planned within this direction.

Improvement Studies

In order to ensure continuous improvement within the scope of the Energy Management System and to observe the areas to be improved; the facility energy audit was conducted on 20-24 July 2020. The report was prepared in September. In line with the results of the work carried out and the determined corporate targets, actions are planned in 2020 for the improvements to be made. In this context, improvements have been made within the framework of the actions taken to replace existing equipment with energy efficient equipment (insulation, lighting, motor, fan, leakage, etc.) within the plan and budget and the planned improvement actions continue in 2021. Within the scope of the energy management system, the natural resource consumption is monitored during the year and the air, water etc. leaks have been eliminated. Within the scope of the Energy Management System, the performance indicators determined at the beginning of the year were followed as per the system.

LABORATORY

İZAYDAŞ Laboratory, which was established in 1996 and started its activities, was established in accordance with the requirements of TS EN ISO / IEC 17025 standards, by continuously improving the effectiveness of our quality management system with the participation and contribution of all our personnel and we continue to work with a management approach that can keep up with the changing conditions of the day, respecting legal ethical values and adhering to the principles of reliability, honesty, impartiality, confidentiality and independence. The quality of the service we provide by İZAYDAŞ Laboratory is ensured by a customer-focused work that transforms the demands of our customers into satisfaction with the methods we have specified. For this purpose, it has been adopted as our policy to produce fast and reliable results.

İZAYDAŞ Laboratory, whose establishment purpose is limited to business analysis, continues its works with great care and diligence as a laboratory that has a say in many fields, a leader and at the same time guides the sector. We have maintained our ISO 17025 accreditation certificate, which is received in 2011, by expanding its scope of continuous service for four years, and successfully completed the certification renewal audit in 2015 and was entitled to continue our activities until 2020. In 2019, according to the 2017 version of the standard, the audit process was successfully completed, and the certification process is expected to be completed.

By expanding the scope of the accreditation certificate received in July 2014 in order to organize Proficiency Testing Programs within the scope of ISO 17043 Standard, in 2015, still maintains the title of being the first laboratory proficiency testing provider in Turkey in its field, in the fields of water, waste water and waste analysis.

Since 2013, we continue to be the first domestic and national laboratory that has been producing certified internal quality control samples for laboratories within the scope of ISO Guide 80 standard and have been continuously increasing its product portfolio in line with customer demands.

İZAYDAŞ Laboratory:

- Serve within the scope of, in the Experiment Area with ISO 17025 Accreditation Certificate: Water, Waste Water, Sea Water, Pool Water, Waste, Soil, Treatment Sludge, Waste Oil, Isolation Fluids, Precious Metals, Medical Waste, Solid Fuel (Coal), Emission and Emission,
- In the Sampling Area: Rivers and Streams, Groundwater, Lakes and Ponds, Sea Waters, Solid Wastes, Sludge Samples from Sewage Water and Treatment Plants, Surface Soil Sampling, Hand Sampling from Petroleum Liquids, Sampling from Insulation Fluids, Emission and Emission Measurement and Sampling,
- In the field of Proficiency Test with ISO 17043 Accreditation Certificate: Waste, Water, Wastewater and Waste Oil,
- In the Field of Control Standard Production: In waste oil, water, wastewater and waste.



Our analysis parameters within the scope of TÜRKAK Accreditation Certificate and Qualification Certificate are published on the TÜRKAK website www.turkak.org.tr Ministry of Environment and Urbanization of Turkey website, <http://laboratuvar.cevre.gov.tr> and İZAYDAŞ website www.izaydas.com.tr.

With the Turkish Presidential Decree no. 1, within the scope of the Environmental Legislation, the distribution of the measurements and analyses to be made for the purpose of permission, monitoring, confirmation, license, the results of which are submitted to the Ministry or to the institutions to which the Ministry has delegated authority, has started to be distributed through MELBES (Central Laboratory Determination System). As a result of this development in the sector, İZAYDAŞ Laboratory Unit has added its scope in the field of Emission and Immission to the scope of Environmental Measurement and Analysis Competency Regulation and MELBES in order to increase its analysis revenues.

| Year | Declaration and Paid | Waste Acceptance | Business Analysis | Total |
|------|----------------------|------------------|-------------------|-------|
| 2016 | 789 | 1,925 | 2,359 | 5,073 |
| 2017 | 858 | 1,420 | 2,394 | 4,670 |
| 2018 | 1,050 | 998 | 2,239 | 4,287 |
| 2019 | 1,164 | 684 | 2,218 | 4,066 |
| 2020 | 1,186 | 206 | 1,917 | 3,309 |

FINANCIAL AND ADMINISTRATIVE AFFAIRS

As of the end of 2020, İZAYDAŞ reached a turnover of 99,757,189.23 TL and a profit of 2,536,188.13 TL. In 2020, 682,142.10 TL of tax was paid. 85,364.51 TL of this amount consists of bank stoppage taxes, 596,777.59 TL of this amount consists of Corporate Provisional Tax payment.

ACCOUNTING

The 2020 Ordinary General Assembly was held on 17.03.2020.

İZAYDAŞ's revenue sources are listed as follows:

- Incineration Revenues
- Industrial Waste Storage Revenues
- Hazardous Waste Storage Revenues
- Inert Waste Storage Revenue
- Special Transaction Revenue
- Municipal Domestic Waste Revenues
- Industrial Domestic Waste Revenues
- Energy Revenues
- Ship Waste Revenues
- Laboratory Revenues
- Other Income

Independent Audit

In accordance with the Turkish Commercial Code (TCC) numbered 6102, our company has been covered by a mandatory independent audit and a contract has been made with Independent Auditor Etken Bağımsız Denetim ve YMM A.Ş. Opinion of the Independent Audit Report: The financial information included in the annual report of the Board of Directors is consistent with the audited consolidated financial statements in all material respects and reflects the truth.

In the part of other obligations arising from the legislation, according to BDS 570 in accordance with the third paragraph of Article 402 of the Turkish Commercial Code (TCC), it has been stated that there is no significant uncertainty regarding the inability of the enterprise to continue its activities in the foreseeable future within the framework of its continuity.

MARKETING ACTIVITIES

- 54 company visits have been made.
- 4056 phone calls have been made.
- 2,191 quotes have been submitted.
- 1,229 waste generators sent waste to our incineration plant and 353 waste generators sent waste to our landfills.
- Transportation services were provided to 1061 waste generators by covering 377,859 km.
- 584 kg of reported waste (unclaimed) has been disposed of in our facility.

RECEIVED WASTE QUANTITIES

Amount of Waste Received to Incinerator

| Year | Received (kg) |
|------|---------------|
| 2016 | 39,963,704 |
| 2017 | 41,997,655 |
| 2018 | 41,290,209 |
| 2019 | 42,137,413 |
| 2020 | 37,956,372 |

Waste Amounts Received to Landfills (From Customers)

| Year | Class 1 Storage (kg) | Class 2 Storage (kg) | Total (kg) |
|------|----------------------|----------------------|------------|
| 2016 | 7,569,591 | 67,945,052 | 75,514,643 |
| 2017 | 6,432,091 | 29,750,997 | 36,183,088 |
| 2018 | 40,730,342 | 32,005,261 | 72,735,603 |
| 2019 | 42,946,921 | 18,759,514 | 61,706,435 |
| 2020 | 44,584,895 | 13,990,635 | 58,575,530 |

Shipping Service

| Year | Number of Companies Served (units) | Expedition Performed (units) |
|------|------------------------------------|------------------------------|
| 2016 | 1,494 | 3,161 |
| 2017 | 1,406 | 3,215 |
| 2018 | 1,375 | 3,795 |
| 2019 | 1,226 | 3,546 |
| 2020 | 1,061 | 3,320 |

MARINE SERVICES

Ships Served

| Year | Number of Ships Taken Waste from (Number) |
|------|---|
| 2016 | 3,015 |
| 2017 | 3,323 |
| 2018 | 3,340 |
| 2019 | 3,409 |
| 2020 | 3,454 |

Types and Amounts of Waste Collected from Ships

| Year | Bilge (m ³) | Sludge (m ³) | Waste Oil | Garbage | Contaminated | Total (m ³) |
|------|-------------------------|--------------------------|-----------|---------|--------------|-------------------------|
| 2016 | 2,461 | 4,851 | 242 | 2,595 | 68 | 10,817 |
| 2017 | 1,922 | 4,405 | 259 | 3,051 | 562 | 10,202 |
| 2018 | 3,462 | 5,770 | 285 | 3,457 | 670 | 13,646 |
| 2019 | 2,922 | 5,321 | 233 | 3,391 | 855 | 12,724 |
| 2020 | 2,196 | 5,592 | 342 | 3,655 | 1,248 | 13,033 |

İZAYDAŞ Seaplane Flight Hours (minutes)

| Year | İZAYDAŞ | İSU | ISKI | KBB Environmental Protection | Total |
|------|---------|-----|--------|------------------------------|--------|
| 2018 | 12,689 | 635 | 12,475 | 3,900 | 29,699 |
| 2019 | 2,235 | 0 | 5,505 | 4,675 | 12,415 |
| 2020 | 1,060 | 0 | 0 | 6,405 | 7,465 |

CLINICAL AND HAZARDOUS WASTE INCINERATION AND ENERGY GENERATION FACILITY

The operating principle of the facility with an incineration capacity of 5,400 kg/hour, is based on the disposal of the following by incineration: combustible plastic wastes from industry, used oils, pharmaceutical and cosmetic wastes, petrochemical wastes, PVC, solvent, paint wastes, adhesives and adhesives, treatment sludge, etc. hazardous and clinical waste.



Incinerated Wastes

The data of the waste disposed by incineration in the incineration facility in line with the waste acceptance criteria are given in the table below. In 2020, 693,095 sm³ natural gas was consumed as additional fuel in the incineration facility.

| Year | Unit | Solid waste | Keg feeding | Clinical waste | Special liquid | Aqueous liquid | Flammable liquid | Total |
|------|------|-------------|-------------|----------------|----------------|----------------|------------------|--------|
| 2016 | ton | 24,654 | 1,778 | 36 | 1,175 | 2,518 | 4,869 | 35,028 |
| 2017 | ton | 27,694 | 1,829 | 49 | 2,079 | 3,079 | 4,888 | 39,618 |
| 2018 | ton | 25,178 | 2,001 | 106 | 1,980 | 2,654 | 4,841 | 36,762 |
| 2019 | ton | 28,774 | 2,008 | 237 | 2,025 | 3,067 | 4,799 | 40,910 |
| 2020 | ton | 26,885 | 2,293 | 250 | 1,485 | 2,656 | 3,182 | 36,751 |

Emission Values

The Incinerator Flue Gas Emission status for 2020 is given in the table below and meets all the standards of the relevant regulations.

| DAILY EMISSION TABLE | | | | |
|----------------------|-----------------------|--------------|---------|------------------------|
| Emissions | Limit value (mg /nm3) | Excess Value | % | Mass flow rate kg/year |
| CO _n | 50 | 0 | 100,00% | 1,775.1 |
| NO _{xn} | 400 | 0 | 100,00% | 2,2887.1 |
| SO _{2n} | 50 | 0 | 100,00% | 481.2 |
| TOC _n | 10 | 0 | 100,00% | 67.3 |
| HF _n | 1 | 0 | 100,00% | 1,012 |
| HCL _n | 10 | 0 | 100,00% | 75,664 |
| TOZ _n | 10 | 0 | 100,00% | 52.3 |

Plant Performance

By the end of 2020, the total operating hours of the facility were 7,557 hours, the incidental downtime was 79 hours, and the planned maintenance downtime was 1,148 hours.

Incinerator Power Generation

Within the framework of our 49-years old generation license, 16,235,000 kWh of electricity was generated from these 36,751 tons of waste incinerated in 2020. 11,764,216 kWh of this was consumed at the facility, 5,367,685 kWh was sold to TEIAS and 896,901 kWh of electricity was purchased.

| | kWh | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------------|-----|------------|------------|------------|------------|------------|
| Electricity Generated | kWh | 16,594,500 | 17,157,710 | 16,658,000 | 17,686,800 | 16,235,000 |
| Received Electricity | kWh | 837,658 | 787,849 | 887,371 | 777,969 | 896,901 |
| Electricity Consumed | kWh | 11,987,638 | 12,723,744 | 11,975,605 | 13,219,129 | 11,764,216 |
| Electricity Sold | kWh | 5,444,520 | 5,221,815 | 5,569,770 | 5,245,640 | 5,367,685 |

Medical Waste Collection, Transport and Disposal

Medical wastes generated in all health institutions within the boundaries of Kocaeli province are collected and disposed by İZAYDAŞ. With the commissioning of the Sterilization Facility in 2009, infected medical wastes started to be disposed of after sterilization. Pathological wastes continue to be disposed of by incineration in the Incinerator. After the wastes collected from approximately 900 health institutions are sterilized, they are stored and the pathological wastes are disposed of by incineration.



The amount of medical waste collected in Kocaeli province is included in the table below.

| Year | Total amount of medical waste (kg) | Amount of pathological waste (kg) |
|------|------------------------------------|-----------------------------------|
| 2016 | 2,089,710 | 38,367 |
| 2017 | 2,120,181 | 37,135 |
| 2018 | 2,272,583 | 42,643 |
| 2019 | 2,337,337 | 46,342 |
| 2020 | 2,986,991 | 43,858 |

Biogas Plant

In the Biogas Facility, biogas is obtained as a result of anaerobic digestion by using grass, carpet waste, rumen waste, chicken and cattle manure. The gas produced is converted into electrical energy with the help of a gas engine. The heat energy generated by the cooling of the gas engine is used for heating reactors operating under mesophilic conditions.

With Renewable Energy Generation License valid for 10 years from EMRA in 2012 and partial provisional acceptance by T.R. Ministry of Energy and Natural Resources, since 01.01.2013, the electricity generated at the facility is sold to the Electricity Distribution Company within the scope of renewable energy.

Landfill Leachate Treatment Plant

The construction of the treatment facility, which is planned to be built to treat İZAYDAŞ wastewater in accordance with the ISU discharge criteria, was completed and put into operation in 2013. The wastewater that comes out after the treatment is sent to the Waste Water Treatment Facilities of ISU through the collector line. In 2019, a revision was made in the Treatment Plant and capacity was increased.

Pre-transaction amounts for 2020

The amount of pre-treatment (liquid partition, dust partition, packaging amount going to recycling, etc.) performed on the wastes based on years is shown in the table below.

| YEAR | | Unit | 2016 | 2017 | 2018 | 2019 | 2020 |
|--|---------|-------|---------|---------|---------|---------|---------|
| Adjustment of various liquids or powders to the desired weight | | kilo | 137,269 | 238,838 | 110,500 | 183,571 | 118,430 |
| Amount of Contaminated Packaging Going to Recycle | Plastic | kilo | 20,560 | 37,840 | 22,390 | 25,030 | 14,920 |
| | Metal | kilo | 203,040 | 193,870 | 151,340 | 163,860 | 101,740 |
| IBC Amount Going to Recycle | | piece | 1,071 | 2,162 | 2,425 | 1,267 | 821 |

Licensing of Contaminated IBC, Metal/Plastic Barrel Washing Unit

In order to clean the contaminated IBC, metal/plastic barrel packages by washing them with pressurized hot water and chemicals and to bring them into the economy, a Temporary Activity Certificate was received for the unit on 20.05.2020 and a license application was made on 16.11.2020.

IZMIT LANDFILL AREA

Izmit Domestic and Hazardous Solid Waste Landfills were built in 1997 i in 363,007 m² of the 800,000 m² area allocated by T.R. Ministry of Environment and Urbanization. Domestic and hazardous wastes accepted to landfill are transferred to the work area in the appropriate lot according to the type of waste. There are 6 lots with a capacity of 3.163.000 m³ for domestic waste (total capacity 4,753.000 m³ after the way and after lot 1 displacement), for hazardous waste there is a lot with a capacity of 969,919 m³. It is covered with intermediate cover soil to prevent odor and adverse environmental conditions by applying laying/compaction processes with the help of construction equipment.

When the storage process, which is estimated to be 25-32 years, is completed, this area to be greened will be returned to the Ministry of Environment and Urbanization.

| Izmit Landfill | Unit | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|
| Amount Of Hazardous Waste (Class II) | ton | 21,824 | 20,900 | 56,719 | 59,058 | 56,819 |
| Domestic Industrial Waste Amount (Class II) (Class II) | ton | 45,074 | 24,040 | 32,253 | 19,408 | 15,992 |
| Domestic Waste Amount (Class II) | ton | 385,092 | 524,756 | 670,385 | 633,468 | 663,720 |

In 2020, total of 679,713 tons of domestic waste (Class II), 56,819 tons of Hazardous Waste (Class I) were stored and disposed of in Izmit Landfill Areas.

Landfill Gas (LFG)/Energy Generation Plant

Izmit Landfill

A tender was held on 23.06.2010 for the construction and operation of a power plant from landfill gas (LFG) of İZAYDAŞ Izmit and Dilovası Domestic Solid Waste Landfill Landfill Gas (LFG) Power Plant. As a result of the tender, the İzmit Storage Facility started electricity generation on 02.03.2012 after the completion of electricity connections and electricity generation. The total amount of gross energy generated in 2020 was 33,663,420 kWh/year.

| Year | Gross Generated Energy (kWh/ year) | Energy Sold (kWh/year) * |
|-------------|---|-------------------------------------|
| 2016 | 33,893,550 | 32,454,720 |
| 2017 | 40,264,270 | 38,635,970 |
| 2018 | 38,824,960 | 37,284,780 |
| 2019 | 26,251,650 | 24,902,720 |
| 2020 | 33,663,420 | 32,056,240 |

(*) Refers to the net electrical energy supplied to the network after transformer and busbar losses.

The landfill gas energy production facility built within the scope of the Landfill Gas Power Generation Facility Project is to be developed as the “Gold Standard Project”, which is considered the most prestigious among international voluntary standards. Körfez Energy Company, which has started energy production from landfill gas since March 2012, has sold a total of 631,452 tCO₂e carbon between 2014-2018. Since no validation has been made for the year 2020, no carbon sale has been made.

| Year | Loan amount (tCO₂e) İzmit | Loan amount (tCO₂e) Dilovası |
|-------------|---|--|
| 2016 | 72,500 | - |
| 2017 | 121,774 | - |
| 2018 | 90,000 | - |
| 2019 | No validation has been performed yet. | - |
| 2020 | No validation has been performed yet. | - |

Carbon credit quantity table for 2016-2020

Dilovası Landfill

Dilovası landfill has two gas engines. The engines have an installed capacity of 1.063 MW and the plant operates at full capacity of over 8,000 hours per year. Dilovası Storage Facility started electricity generation on 24.10.2015 as a result of electrical connections and completion of electricity generation. The total amount of gross energy generated in 2020 was 3,939,120 kWh/year.

| Year | Gross generated energy (kWh/year) | Energy sold (kWh/year) (*) |
|--|--------------------------------------|----------------------------|
| 2016 | 9,108,490 | 8,707,540 |
| 2017 | 12,516,251 | 11,979,709 |
| 2018 | 10,220,073 | 9,728,296 |
| 2019 | 6,177,303 | 5,762,160 |
| 2020 | 3,939,120 | 3,649,438 |
| (*) Refers to the net electrical energy supplied to the network after transformer and busbar losses. | | |

Waste Characterization Study

The waste characterization studies for the summer and winter period of 2020 were carried out in February and August at İZAYDAŞ Izmit Regular Landfill Site,

Groundwater / Leachate Analysis

In 2020, in accordance with the "Regulation on the Landfill of Wastes", samples were taken and analysed from the Groundwater Wells and Leachate Collection Manholes at Izmit and Dilovası Landfill Sites,

Major Projects Realized in 2020

Construction of Machine Cleaning Unit

Due to the problems experienced during the cleaning of construction equipment under current conditions, external service was received for improvement and a construction machine cleaning unit was built in the designated area.

ONGOING PROJECTS

- Technical preparation for alternative special wastes,
- Digitization of existing documents in the archive,
- TUBITAK project with Duzce University,
- Domestic waste incineration plant plan/project and feasibility study,
- Domestic waste landfill project monitoring (KBB),
- GTU gasification project,
- Installation of solar energy systems,
- Calculation of ISO 14064 carbon footprint,
- İZAYCAN 2 Project,

- Establishment of a Waste Receiving Facility for the separation/dewatering of oil-derived ship wastes,
- Wind turbine renovation,
- Liquid waste treatment, disposal or recycle,
- Providing the maritime emergency response service that all ports have to take,
- Dewatering of Petroleum Derived Waste Oils with Ultrases,
- Domestic waste pyrolysis study will be evaluated (Körfez Energy)

ENVIRONMENTAL MANAGEMENT SYSTEM

Environmental Permit and License Certificate

Within the framework of the Environmental Permit and License Regulation, studies are carried out with the Environmental Permit and License Certificate valid between 29.12.2017 - 24.08.2022 and approved by the Ministry of Environment and Urbanization, General Directorate of Environmental Impact Assessment, with their Permit and Inspection. Environmental Permit and License Certificate is about Air Emission, Landfill-Class 2 (Municipal Waste and Non-Hazardous Waste) Landfill, Waste Interim Storage, Biomethanization, Waste Incineration and Co-Incineration, Landfill-Class 1 (Hazardous Waste) Landfill activities and includes all activities.

T.C. ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI
Çevresel Etki Değerlendirmesi, İzin ve Denetim Genel Müdürlüğü

ÇEVRE İZİN ve LİSANS BELGESİ

Belge No : 75094
Çevre İzin ve Lisansın Başlangıç Tarihi : 29.12.2017
Çevre İzin ve Lisansın Bitiş Tarihi : 24.08.2022
İşletmenin/Faaliyetin Adı : İZAYDAŞ İZMİT ATIK VE ARTIRITMA YAK. VE DEĞER. A.Ş.
İşletmenin/Faaliyetin Adresi : ALIKAHYA ATATÜRK MAH. ÇARŞIBAŞI CAD. NO:350 İZMİT/KOCAELİ
İşletmenin/Faaliyetin Vergi Dairesi ve No'su : ALEMDAR-4840003120
Çevre İzin ve Lisansın Konusu : Hava Emisyon, Düzeneği Depolama - 2. Sınıf (Belediye Atıkları ve Tehlikeli Atık Düzeneği Depolama), Atık Ara Depolama, Biyometanizasyon, Atık Yakma ve Beraber Yakma, Düzeneği Depolama - 1. Sınıf (Tehlikeli Atık Düzeneği Depolama)

Yukarıda adı ve açık adresi belirtilen işletme/faaliyette bu belgenin ekinde yer alan izin koşulları çerçevesinde çıkıp çıkıp 2572 sayılı Çevre Kanunu gereğince hazırlanmış Çevre İzin ve Lisans Yönetmeliği kapsamında ÇEVRE İZİNİ ve LİSANSI verilmektedir.

Bu belge 29/12/2017 tarih ve 75094 sayılı yazı ile tükümlü gıncıdır. Aynı kullanılmırmaz.

M. MUSTAFA SATILMAŞ
Bakan a.
Genel Müdür

T.C. ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI
ÇED İzin ve Denetim Genel Müdürlüğü

GEÇİCİ FAALİYET BELGESİ

Belge No : 37259/154.1.1
Başlangıç Tarihi : 20.05.2020
Bitiş Tarihi : 20.05.2021
Tesis Adı : İZAYDAŞ İZMİT ATIK VE ARTIRITMA YAKMA VE DEĞERİ ENERJİ A.Ş.
Tesis Adresi : ALIKAHYA ATATÜRK Mahallesi, ÇARŞIBAŞI CAD. NO:350/1, İZMİT / KOCAELİ
İşletmenin Vergi No : 4840003120
Çevre İzin ve Lisans Konusu : Hava Emisyon, Düzeneği Depolama - 2. Sınıf (Belediye Atıkları ve Tehlikeli Atık Düzeneği Depolama), Atık Ara Depolama, Biyometanizasyon, Atık Yakma ve Beraber Yakma, Düzeneği Depolama - 1. Sınıf (Tehlikeli Atık Düzeneği Depolama)

Yukarıda adı ve açık adresi belirtilen işletme/faaliyette bu belgenin ekinde yer alan izin koşulları çerçevesinde çıkıp çıkıp 2572 sayılı Çevre Kanunu gereğince hazırlanmış Çevre İzin ve Lisans Yönetmeliği kapsamında GEÇİCİ FAALİYET BELGESİ verilmektedir.

Dr. Mustafa SATILMAŞ
Bakan a.
Genel Müdür

An application was made to the Ministry of Environment and Urbanization to add the Hazardous Waste Recycling subject to the field of activity of the Environmental Permit and License Certificate, and one-year Temporary Activity Certificate was received on 20.05.2020. The required documents for the transition to license have been uploaded on the online system on 16.10.2020 and the evaluation of the Ministry is awaited.

Zero Waste Certificate

With the aim of preventing waste, using resources more efficiently, reducing the amount of waste and maintaining a clean world for the future by recycling waste, the separate collection of packing wastes, which we have been carrying out since 2011, and with the entry into force of the Zero Waste Regulation, and the Zero Waste Certificate application, we became the first facility to receive a Waste Certificate in Kocaeli Province.

SIFIR ATIK BELGESİ
(Temel Seviye)

Adı : İZAYDAŞ İZMİT ATIK VE ARTIKLARI ARITMA YAKMA VE DEĞERLENDİRME ANONİM ŞİRKETİ
Adresi : KOCAELİ, LİKAHYA ATATÜRK Mahallesi, ÇARŞIBAŞI CADDE, No: 350 /1-, İZMİT, Türkiye
Vergi No : 4840003120

12/07/2019 tarihli ve 30829 sayılı Resmi Gazete’de yayımlanarak yürürlüğe giren Sıfır Atık Yönetmeliği’nce Sıfır Atık Yönetim Sistemi’ni kurarak **Sıfır Atık Belgesi**’ni almaya hak kazanmıştır.

Belge Son Geçerlilik Tarihi: 21/02/2025

 e-imzalıdır
Ahmet KIRILMAZ
Çevre ve Şehircilik İl Müdürü

Not: HFO sayın elektronik firma Kamusal olarak bu belge elektronik ortamda imzalanmıştır.
Firma Yetkilisi: Erol K. (HFTBCE) Sayın Etiler, Ankara (ayrıntılı bilgi için lütfen bizimle iletişime geçiniz)

The amount of packing waste sent to recycling within the scope of zero waste is given in the table below.

| YEAR | AMOUNT (KG) |
|------|-------------|
| 2016 | 25,520 |
| 2017 | 26,650 |
| 2018 | 27,380 |
| 2019 | 20,140 |
| 2020 | 18,140 |

Environmental Risk Assessment

In accordance with ISO 14001: 2015 Environmental Management System, the Environmental Risk Assessment studies of the processes were continued and updated in line with the Environmental Risk Assessment Instruction (T-103-02).

In addition, field audits were carried out with OHS, IMS and related field supervisors with tours of field, order and cleaning within the facility every month, and actions were taken for the necessary arrangements.

Kocaeli University-Industrial Education Cooperation

Within the scope of the Industry-University Education Cooperation Protocol signed on 07.07.2007, Kocaeli University Hereke Ömer İsmet Uzunyol Vocational School, Environmental Cleaning and Inspection Program, affiliated with the Department of Environmental Cleaning Services, "Waste Management I" course in the Fall Semester of the 2019-2020 Education-Academic Year and in the Summer Semester of the 2019-2020 Education-Academic Year, "Waste Management II and Waste Utilization and Recycling" lectures were given online due to the Pandemic Process.

Environmental Audits

In 2020, a Sudden Audit was carried out by Kocaeli Provincial Directorate of Environment and Urbanization on 07.01.2020 and 22.07.2020. The audit report did not identify any deficiencies.

National Vocational Qualification Pilot Examinations

Pilot exams have been carried out for occupational standards prepared by İZAYDAS regarding the National Occupational Standards, which entered into force after being published in the Official Gazette dated 06.12.2018 and numbered 30617.

Detection and improvement of sites contaminated with persistent organic pollutants project

In order to fulfil the obligations within the framework of the Stockholm Convention on Persistent Organic Pollutants (POPs) to which our country became a party in 2010, the EU Regulation and national regulations, under the leadership of the United Nations Development Program (UNDP) under the auspices of the Ministry of Environment and Urbanization, "Detection of POPs Contaminated Sites and Improvement Project" was started on 08.10.2019. The aim of the project is to prevent the damage to human health and the environment from the negative effects of persistent organic pollutants, especially the management of the sites contaminated with POPs and the prevention of POPs and it lasts for 36 months. The project opening meeting was held on 14.01.2020 in Ankara, and we attended it.

ADKEB (Determination of Criteria and Principles Regarding Waste Intermediate Storage Facilities) Project,

Under the coordination of the Ministry of Environment and Urbanization, the "Determination of Criteria and Principles for Waste Intermediate Storage Facilities - ADKEB Project" carried out by Middle East Technical University started on 08.07.2019 and was completed with a closing meeting held on 16.07.2020.

Environmental Accident Exercise

Within the scope of Emergency Preparedness and Response Procedure (PR 11), Emergency Preparedness and Response Plans (PL-660-01) and Environmental Accident and Emergency Management Instruction (T-103-01), an unannounced environmental accident exercise was carried out on 24.09.2020. The exercise was successfully completed and the actions to be taken were determined by holding an evaluation meeting after the exercise.

OCCUPATIONAL HEALTH AND SAFETY

Occupational Accidents

As of the end of December 20, the number of minor and major occupational accidents was recorded as 52. First aid, medical intervention, referral to hospital was applied to 52 victims in 52 occupational accidents.

In our facility, we keep the number of accident-free working days on our board above the shift supervisor. If there are two or more lost working days on our board because of the accident that the İZAYDAŞ employee had, we reset our board. Accident-free workdays as of 31.12.2020, was recorded as 13 today. Our accident-free workday record is 568 days.

OHS activities

On 30.12.2020, within the scope of the Integrated Management System carried out by the Kalitest Certification company, we passed the surveillance audit and the OHSAS 18001: 2007 standard was entitled to the continuity of the certificate.

Occupational Health and safety trainings were carried with online trainings in accordance with the 2020 training plan. At the end of the online training, 16 hours of OHS trainings per employee were held and training evaluations were carried out.

On 30.03.2020, in the event of a coronavirus incident within the facility due to the Coronavirus (Covid-19) Outbreak, an exercise was held in which the referral process was carried out to identify the contacted/close persons and the ambulance hygiene process.

OHS board meetings

In accordance with the 22nd and 30th articles of the "Occupational Health and Safety Law" numbered 6331 and the "Regulation on Occupational Health and Safety Boards" issued accordingly, İZAYDAŞ Occupational Health and Safety Board meetings were held on the 3rd Wednesday of every month at 09:30. The board meetings were announced to the board members 48 hours before the meeting, stating the date, time and place by invitation. The meeting agenda was prepared considering the suggestions of the board members.

In İZAYDAŞ Occupational Health and Safety Board meetings, the first agenda item is the applications of the board decisions taken in the previous month. Agenda items for the meeting are listed below.

OHS Board Meeting Agenda:

1. Evaluation of the previous month's OHS Board Meeting Minutes
2. Occupational accidents, if any
3. Studies performed
4. Fighting against Coronavirus outbreak process studies
5. Presentation by occupational physician
6. Evaluation of the work of subcontractors
7. Evaluation of risk and near miss cards
8. Union representative, On-duty Foreman and Employee Representative opinions and recommendations
9. Suggestions

PUBLIC RELATIONS

Organizations We Participated

İZAYDAŞ, one of the affiliates of Kocaeli Metropolitan Municipality, the leading organization in environment and waste management, we pay attention to meet with waste producers at every opportunity with our increasing capacity and innovations implemented in favour of waste producers, as well as the organizations of the Metropolitan Municipality. At least ten organizations we plan to attend in 2020 have been cancelled due to the global pandemic.

| Event Name | Date | Place |
|--|---------------|--------|
| SMART CITIES AND MUNICIPALITIES CONGRESS | 15-16.01.2020 | ANKARA |

Online Activities We Participated

| | Online Event Name | Date | Media |
|----|---|------------|---------|
| 1 | Sustainable Conversations - Akademi Çevre | 16.04.2020 | YouTube |
| 2 | ITU Energy course and presentation | 05.05.2020 | Zoom |
| 3 | Marmara Municipalities Union Online Panel | 20.05.2020 | Zoom |
| 4 | Hydrogen Workshop | 21.05.2020 | Zoom |
| 5 | Özel Kalem Dergisi Panel | 23.09.2020 | YouTube |
| 6 | Union of Municipalities of Turkey Zero Waste Summit and | 28.10.2020 | Zoom |
| 7 | ITU Chemical Engineers Club introduction and interview | 5.11.2020 | Zoom |
| 8 | Kojentürk Energy talks | 6.11.2020 | Webex |
| 9 | Campus talks - Exitcom | 6.11.2020 | Zoom |
| 10 | ITU Chemical Engineers Club interview | 21.11.2020 | Zoom |

Our visitors

In 2020, the number of visitors accepted to İZAYDAŞ from schools, local and foreign institutions, municipalities, associations and foundations, and chambers was **1,316**.

| Year | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------------|-------|-------|-------|-------|-------|-------|
| Number Of Visitors | 2,208 | 4,036 | 4,900 | 4,961 | 3,142 | 1,316 |

A total of 21,268 people visited our website in 2020. The number of domestic and international visitors for the last five years is given in the table below.

| Website Visitor Numbers | | | |
|-------------------------|--------|---------------|--------|
| Year | Turkey | International | Total |
| 2016 | 39,429 | 2,381 | 41,810 |
| 2017 | 36,255 | 1,701 | 37,956 |
| 2018 | 22,154 | 2,101 | 24,255 |
| 2019 | 18,661 | 2,394 | 21,055 |
| 2020 | 18,588 | 2,680 | 21,268 |

Social Media

We think that we all have a place in digital platforms and we take part in social media with a total of 8,363 followers to make our communication stronger, to strengthen ourselves and to keep our corporate brand value at the top.





Clean Environment, Healthy Society

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