The COVID-19 pandemic brought upon some challenges concerning the communal waste management. Namely, the quantities of infectious waste have increased in the healthcare institutions, but also there is a potential infectious waste in the communal waste.

Due to increased number of patients infected with COVID-19, the healthcare institutions generate increased quantities of waste from protective equipment, pharmaceutical waste, waste from laboratory analysis etc. The medical waste which is created in the healthcare institutions is selected, stored, transported and disposed as per the Rulebook on treatment of medical waste, and packaging and labeling of medical waste (Official Gazette of Republic of Macedonia No. 146/07). Except for the increased water quantities it is not expected that there would be other risks for the health and the environment, as the medical waste management system functions in accordance with the legal requirements.

Apart from the healthcare institutions, infectious and potentially infectious waste is generated by the centers which accommodate citizens who arrived in the country from abroad (quarantine) as well as from the households which have suspected persons in self-isolation or infected persons on home treatment. Any inadequate handling of this infectious waste may have negative consequences on the citizens’ health, and especially on the vulnerable groups. Therefore, the informal waste collectors must not have access to containers and waste depots, and no waste may be burned outdoors. In addition, the employees of the Public Utility Companies who work on waste collection must be adequately protected.

General waste management during pandemics

In order to reduce the risk from spreading an infection due to inadequate waste handling, the citizens may contribute a lot with their own behavior and actions. What can be done?

1. The garbage bags must not be left open: the citizens should use specialized bags that are closed with a string, or simply tie the bags and close them hermetically, as much as possible.

2. The lid of the container must be closed after the waste removal in order to prevent contact or dispersal of waste by the stray animals. The garbage bags must not be left outside the containers or beside them. If the container is already overloaded, then one should look for another container, or keep the garbage bag at home – until the next garbage pickup by the Public Utility Company.

3. Upon opening and closing of containers, one must wear protective gloves.

4. The households continue with the recycling as per usual. However the protective equipment – gloves, disinfection wet wipes, masks, disinfectants etc. are not recycled and should be placed in a regular garbage bag.

5. During the pandemic one should avoid home works that produce additional waste, such as various renovations, cleaning of storages, basements etc.
6. Treating waste from quarantine and suspected case in self-isolation

1. Temporarily the waste is not recycled in order to protect the workers that collect and select the waste.
2. The garbage bags should be loaded up to 2/3 of their capacity, tied well, and placed in a second bag, which also should be well tied. Both bags must be tough and resistant to damages, and if they are made out of thin and non resistant material then a third bag must be used.
3. Upon closing, tying and removing of garbage bags in the container one must use gloves which must be disposed of in a new bag which is being opened to collect new garbage.

Protection measures for the workers who transport the communal waste

The Public Utility Companies must provide uninterrupted service of waste collection despite the restrictions of movement. The employees of these companies that come in contact with the waste should contribute to reducing the danger of spreading the diseases, as they are second in importance after the healthcare workers. Therefore, the Public Utility Companies must undertake measures for protection of their own staff and must obey rigidly the hygiene norms. These measures include:

1. Frequent change of work and protection attire and mandatory wearing of gloves and masks;
2. Change of protective gloves if they are damaged
3. Disinfection of waste collection trucks
4. Maintaining distance between workers (>1m),
5. Avoiding grouping of workers in common areas

Besides the obeying of hygiene norms, the Public Utility Companies must have plans for states of emergency in order to provide continuity in their waste collection service. These plans must include alternative routes and trucks under circumstances of reduced personnel and trucks in use. Some European countries, where the capacities of the public utility companies were seriously reduced, signed contracts with private companies for the execution of the communal services.

Waste management during pandemics may represent a risk, but also it may contribute to a successful crisis management. Various international organization (ISWA, CTCN – UNEP) and authorities in many counties already published information brochures and information videos. The Ministry of Environment and Physical Planning prepared certain guidelines for the citizens during the pandemic and to take protective measures and safeguard their health and the health of others. Each one of us needs to be proactive and get the information from credible sources on how to contribute with one’s own behavior and reduce the risks from spreading the disease.

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April, 2020

1 https://www.moepp.gov.mk/?nastani=%d0%bf%d1%80%d0%bf%d1%80%d0%bd%d0%b8%d0%b2%d0%b0%d0%bd%d0%b5-%d0%b3%d1%80%d0%b8%d0%b2%d1%83%d0%b2%d0%b0%d1%82%d0%b0%d0%b4-%d0%b7%d0%b0-%d0%b3%d1%80

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STATE OF EMERGENCY CAUSED BY COVID-19

COVID-19 and treatment of water and wastewater

Introduction to Corona virus

The purpose of this research is to illustrate the opinions ad recommendations of practical experts in the treatment of water and waste water under the circumstances created with the Corona virus.

- The fate of coronaviruses in the water and wastewater treatment plants
- The fate of coronaviruses in water environment
- The effectiveness of the process for filtration and disinfection in the water treatment for the removal of coronaviruses and their inactivation

It is important to point out that there is not sufficient literature on the subject of workability of water and wastewater treatment processes over the coronaviruses and as always, the segments for the quality of water and the treatment under which the water is subdued in the plant may give variable results for the overall efficiency and variable results from the laboratory research.

Thoughts on water and wastewater treatment

The infectious coronaviruses which attack the human body may be present in the raw waters collected from the population where the infection is present. Around 20-40% of the SARS-CoV infections presented symptoms of diarrhea and the virus was able to connect to the intestinal receptors, as well as the lungs (Leung et al. 2003).

These viruses may be found in the urine and the feces of infected persons after 100 days from the initial infection (Liu et al., 2003). The presence of coronaviruses in the waters from the hospitals and the household waste is 2 -3 days (Wang et al., 2005).

The wastewater treatment plants, which treat the waste waters from hospitals, and centers in which patients are isolated and treated for coronaviruses may have increased concentrations of the virus in the incoming waters. Even more, if the wastewater treatment is insufficient to remove or deactivate the coronaviruses or if there is operational bypass, then the coronaviruses may be released into the environment (Casanova et al., 2009).

It has not been established if the coronaviruses are more water resistant compared to other microorganisms such as E. Coli, or human viruses such as the poliovirus, which are most commonly used as surrogates for the estimation of the cleansing efficiency (Gundy et al., 2009). The results from the studies demonstrate that the survival of the coronaviruses depends on the temperature, as they tend to survive longer on lower temperatures. Therefore, the presence of the coronaviruses is expected to reduce in the raw waters and the surface water in the warmer seasons. The usual disinfection methods which are used for water and wastewater treatment are efficient for inactivation of the coronaviruses if they are performed correctly.

Generally, the secondary treatment of wastewaters may be considered for removal of 1 log (90%) of viruses, even though the research suggest that the level of removal of the virus is very variable and it ranges from insignificant removal to more than 2 log (99%). (Hewitt et al., 2011; USEPA, 1986). Due to these variations, the primary process of inactivation of viruses during wastewater treatment is a chemical disinfection (i.e. chlorination) and/or disinfection with ultraviolet light (UV).
The efficiency of the chlorination process in the deactivation of the virus in the wastewaters depends on several factors that determine the quality of water. The presence of disinfectants, especially ammonia, which reacts with chlorine to form chloramines, is very important. Generally, the chloramines are less efficient in the deactivation of viruses compared to the elementary chlorine. Therefore, it is important to know the ammonia concentration before the disinfection process in order to be able to determine adequately its efficiency in the process of virus deactivation. The chemical disinfection of wastewaters with the use of elementary chlorine is expected to be efficient over the process of deactivation of the coronaviruses, when it is applied in the adequate segment of the wastewater treatment procedure. In one published research it was illustrated that the chlorination of the communal waters with 10 mg/l sodium hypochlorite with duration of 30 minutes and elementary chlorine with concentration higher than 0.4 mg/l deactivated 5 log of coronaviruses (Wang et al., 2005). This concentration of elementary chlorine used to disinfect, may not be present in every segment of the effluent treatment in the treatment plant. The effectiveness of the UV-disinfection of viruses in the wastewaters depends a lot on the installed treatment system and therefore it is not possible to make a general assessment. It is expected that the UV-systems which were not designed especially to deactivate the coronaviruses will have lower levels of inactivation of the coronavirus.

**Sludge management**

The survival of the coronaviruses in the sludge from the wastewater has not been reported, but it is expected that it will vary significantly depending on the wastewater treatment and the sludge treatment in a given environment. Based on the research for the survival of the coronavirus in the water and wastewater (Gundy et al., 2009), the existence of the coronaviruses in the primary effluent at a temperature above 200C is expected to be at a low level in a period of 4 days. Still, the same research published results that the existence time is increasing (e.g. for more than 4 weeks) at lower temperatures (around 40C) in clean water. For all analyzed temperature values, the coronaviruses have demonstrated lower rates of survival in the wastewater compared to other viruses. The practices for handling and deposing of waste should be considered case by case in order to prevent the pollution of underground and surface waters.

**Wastewater treatment plants’ operators**

The respiratory illnesses may spread through contacts with aerosols or handshakes. Therefore, it is recommended to the operators of the wastewater treatment plants to use masks and gloves for one use only in order to avoid the contacts with the aerosols. Also, there should be rigid sanitary practices in place which will stimulate frequent hand washing, separate eating areas from work spaces and minimize touching the face and hands.

The general sanitation practices are shown below which prevent the spreading of respiratory viruses:

- Wash your hands for at least 20 seconds with soap and water and especially after using the bathroom, blowing your noses, before meals, when you coughed or sneezed;
- Stay home if you are ill;
- Use a tissue when you cough or sneeze and then dispose of it in a garbage bin;
- Disinfect frequently the surfaces and objects that are being touched more frequently, such as door knobs and doors;
- Don’t touch your eyes, nose and mouth with unwashed hands;
- Avoid close contact with ill persons.

**Treatment of potable water**

Treatment plants for surface water with downstream influence over the wastewaters are most susceptible to contamination with coronaviruses. The conventional treatment with elementary chlorine designed to inactivate 0.5 log Giardia, may inactivate at least 8 log viruses in total (Health Canada, 2019a). It is important to assure that the disinfection is practiced continuously (e.g. cloudiness, disinfection dose, residue, pH, temperature, and flow). The optimized conventional filtration may reach removal of 2 (99%) log viruses. The UV fluency from 44mJ/cm2 may be achieved by inactivation of 3 (99%) log of the poliovirus 1 and rotavirus, while from 40-199 ml/cm2 it can deactivate 3 log (99%) of the adenoviruses, a large number of the viruses are UV resistant (Health Canada, 2019b; USEPA 2006). Based on the published research, the water treatment which meets the regulation for inactivation of the virus is expected to be efficient for the control of the coronaviruses.

Below are given the responses to potential risks from the coronaviruses in the water and wastewater treatment:

<table>
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<tr>
<th>Critical</th>
<th>Aerosols created during the wastewater treatment</th>
<th>Define the risks for spreading of coronaviruses to the operators of the wastewater treatment plants and apply sanitary prevention practices</th>
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<td>Wastewater treatment</td>
<td>Ineffective coronaviruses which exist in communal wastewater</td>
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<td>Disinfection of wastewaters</td>
<td>Ineffective coronaviruses in the water enter through the wastewater</td>
<td>Provide continuous monitoring and disinfection of potable water for systems with downstream influence on the wastewater</td>
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<tr>
<td>Treatment of potable water</td>
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Study: COVID-19 is spread via feces-oral route

Hong Shan, MD, PhD, from Fifth Affiliated Hospital, Sun Yat-sen University, in Zhuhai, the Guangdong province and colleagues have noticed that the coronavirus are present in the gastrointestinal tract.

The research analyzed 73 patients for possible COVID-19 and it took place from February 1-14, 2020. The samples from urine, feces and tissue were analyzed in series.

A total of 39 patients (53.4%; 25 men and 14 women) were positive to SARS-CoV-2 RNA in the sample from their feces. The age of the patients ranged from 10 months to 78 years of age, and the duration of the positiveness of the virus in the feces ranged from 1 to 12 days. The feces of 17 patients (23.3%) remained positive to the viruses even after the results of the tested respiratory samples were negative.

The PC “Komunalna higiena” Skopje

As part of the prevention of spreading of COVID-19, the teams of PC “Komunalna higiena” Skopje discharge on a daily basis mechanical washing with auto-tanks and disinfection of boulevards and major streets in all municipalities on the territory of Skopje. The teams of the PC wash all public traffic surfaces two times in 24 hours.

The PC “Komunalna higiena” Skopje continues to collect and transport the communal waste from the City of Skopje with the usual dynamics – in three shifts, every day of the week, and this dynamic will remain even during the Easter holidays.

PUC “Komunalec” Strumica

During the entire period of the State of Emergency PUC “Komunalec” Strumica was performing mechanical and manual disinfection in the town of Strumica and the surround areas.

The machine disinfection of the town and the populated areas –Kosturino, Raborci, Pochpevo and Rich was performed on April 3 p.m.

PUC “Komunaalna cistota” Bogdanci

PC “Komunaalna cistota” Bogdanci was hired to disinfect the public areas and residential buildings, and to wash the streets on the territory of the Municipality of Bogdanci. So far, the PC performed four disinfections, one per week, with 8 workers, who have been working for 5 hours on each disinfection. In the process was included a tank for street washing, 2 tractors with atomizers and 4 workers with manual sprays. The disinfection was performed with sodium hypochlorite with the tank and the atomizers, and with “Diezental” in the manual sprays. This process was mainly performed during nocturnal hours when the population is prohibited to move due to curfew.

PUC “Komunalec” Demir Hisar

The PUC “Komunalec” Demir Hisar has performed two disinfections in all populated areas in the Municipality of Demir Hisar and three just in the town area (streets, all public

Undertaken activities by the PUCs during the State of Emergency

After the State of Emergency was declared, the public utility companies (PUCs) despite their engagements in regular activities, became actively involved in all additional activities in order to assist the state and the citizen in handling the pandemic caused by COVID-19.

In the past period, PUCs exerted a lot of effort and organized their operations in shifts; they have been working on weekends, holidays, and during the curfew.

Below you may read some of the activities that have been undertaken by the PUCs in the past period:

PC “Komunalec” Kavadarci

At each entrance into the town there were two workers working in three shifts, equipped with protective masks, gloves and sprays to disinfect the cars upon entering the town. This activity lasted for three days, up to the moment when automated spots on each entrance into Kavadarci were set up. PC “Komunalec” Kavadarci is still obligated to provide the tanks with the hypochlorite solution.

Two times a week all containers, garbage bins, urban equipment, swings, benches in the parks are being disinfected, and also two times a week a disinfection from air is organized with the tanks of PC “Komunalec”, with specially adapted atomizers. The City Hospital and the Healthcare Institution are being disinfected every day by washing their yards and with the hypochlorite solution. Besides the existing schedule for washing, an additional shift with employment of 3 tanks was introduced, where 2 of them provide manual washing and disinfection and 1 provides mechanical disinfection of the villages and additional washing of the entire town. The washing is done with disinfectant solution.

PC “Cistota i zelenilo” Kumanovo

With two atomizers, this PC disinfects on a daily basis the central area, the General Hospital, city cemetery, and the Muslim cemetery. The disinfection is done also in all rural areas, which have been disinfected so far 3 to 4 times.

The PC disinfects the city squares, the bus station and bus stops, city garage, parking lots, entrances in public institutions, and all communal equipment. Also, this PC disinfects all children’s corners, playgrounds, parks and the river bank. The Municipality of Lipokovo was disinfected as well. As far as indoor disinfection is concerned, all buildings on the territory of the Municipality of Kumanovo have been disinfected at least 5 times, on regular routes, and for special cases asked by the Municipality of the director of the PC, some areas have been disinfected 10 to 12 times. Some of the institutions have been disinfected inside, such as the Municipality of Kumanovo, the General Hospital, the Pension and Disability Fund, the Social Welfare Center and the Public Revenue Office in Kumanovo.

PUC “Komunalna higiena” Skopje

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PC “Komunalna higiena” Skopje
On 31.03.2020, ADKOM submitted a letter to the Government following activities:

In order for ADKOM to support its members and to help them by the virus COVID-19, the PUCs have a crucial role in supplying of potable water as well as for the maintenance of cleanliness and during regular working hours they had to work on their daily duties.

Besides the regular activities of maintenance of water and sewage systems, transport and disposal of communal waste, in the town of Demir Kapija, all employees were engaged on discharging additional activities. Eight to ten workers on average were engaged for the disinfection.

PUC “Ilinden” Ilinden

The PUC “Ilinden” performed all requested additional activities per the recommendation from the Government and the Crises Headquarters, besides all the regular daily activities such as collection and transportation of communal waste and maintaining public hygiene. Therefore, a plan for washing and disinfection was prepared for all the streets on the territory of the Municipality of Ilinden, which defined the dynamics and the intervention schedule.

The disinfection is performed with a tank truck operated by three workers, as well as with manual pumps, operated by 5 workers, in two shifts. Sodium hypochlorite is used for the disinfection.

All streets and roads on the territory of the Municipality of Ilinden have been covered with the disinfection, as well as some more frequently used locations such as bus stops, ambulances, pharmacies, markets, shops, building entrances, entrances into institutions such as the PUC, Municipality, homes, locations for containers for communal waste etc.

The disinfection is performed on urban equipment: benches in parks and pedestrian areas, garbage bins, waste containers etc.

PC “Nikola Karev” Probishtip

The disinfection was performed with a tank with 3m³ volume, and 5 manual 10-liter pumps, for washing the streets in the town and the surrounding areas with over 150 inhabitants, as per the dynamics and recommendations from the Crises Headquarters.

For these activities at least 10 workers were engaged on discharging them outside of working hours, i.e. during curfew, and on weekends and holidays, when the citizens were at home.

On 13.04.2020, ADKOM submitted a request to the Government of the Republic of North Macedonia concerning the salaries of the PUCs and proposed that in the Government's consideration for cuts in wages the specifics of the works and services of the PUCs should be taken into consideration, and that these entities should have a special status, separate from other entities in the public sector.

ADKOM hired consultants who adjusted and unified the tools for data collection and the model for calculation of tariffs for the needs of the second regulated period, and also prepared the guidelines for the use of these tools.

Organizing and delivering trainings for BPs and PTAs to the PUCs. The trainings are done online, in order for the PUCs to be supported in the process and also to meet the legal obligations set by the Regulatory Commission.

On 01.04.2020, ADKOM submitted a request to the Technical Prime Minister, Mr. Oliver Spasovski, in order to get approval for use of gas and gasoline from the state reserves, as well as to get assistance in a form of protective consumable (gloves and masks) and disinfectants for all PUCs in the country.

On 02.04.2020, ADKOM submitted a letter to the Government of the Republic of North Macedonia requesting answers to the questions submitted by the PUCs concerning the use of annual leaves, leaves of absence, and also initiated the resolutions of other issues concerning wages and contributions.

In April 2020, ADKOM submitted a request to the Government of the Republic of North Macedonia for the postponement of the enforcement of the Law on cancelling of interest rates and reprogramming of debts and expenditures of natural persons, publicized in the Official Gazette of the Republic of North Macedonian No.31/2020 from 10.02.2020. Therefore, ADKOM submitted a list of questions to the Chambers of Executors concerning the implementation of this process.

Collecting additional data concerning increased workload of the PUCs (disinfections, number of people engaged, working during working hours or outside working hours and similar data), after the submitted request by the government for additions to the Administrative Order for payment of fees to the wages of employees in the public sector.

On 13.04.2020 ADKOM submitted a request to the Government of the Republic of North Macedonia to add to the Administrative Order for limitations to the payment of fees to the wages of employees in the public sector during the State of Emergency. It was pointed out that it is unjust to reduce the fees to the wages of the PUC employees, as they put in extraordinary efforts to meet the needs of the citizens and the State in dealing with this problem.

The Eleventh International Conference on “Modernization and sustainability of the Communal Services” organized by ADKOM due to the situation of COVID-19 will be postponed for September 2020. In case the situation does not resolve until September then the conference will be held in May or June 2021.
Experts’ debate on energy efficiency in the PUCs.

On February 4, 2020, the ADKOM Training Centre, in cooperation with the RCDN Project, organized experts’ debate on energy efficiency in the Public Utility Companies (PUCs).

The Moderator, Mr. Jane Vrteski opened the debate by greeting all participants and by pointing out that the specific goal of the debate is to raise the awareness with the experts from various institutions on the potential and the benefits of the policies and measures for energy efficiency in the PUCs.

After the presentations, the participants had a discussion and drew the following conclusions:

• The measures for energy efficiency are the impetus that might contribute to a more efficient and effective operations of the PUCs, which will contribute that the end users- the citizens will get the services for a lower price.

• PUC have high maintenance costs for the wastewater treatment plants and in order to reduce those costs the plants need to become energy efficient. PUC that have a photovoltaic power station and which produce electricity are not able to sell the electricity due to the legal restrictions, specifically with the Law on Communal Services.

• ADKOM in cooperation with ZELS and the State Inspectorate with the Ministry of Transportation and Communication should initiate amendments to the Law on Communal Services, whereby the services of the PUCs would extend and would be in accordance with the needs of the PUCs, with the ultimate goal to improve the services for the benefit of the citizens.

• The need for strengthening the capacities of the PUC and the implementing the energy efficiency program through the ADKOM training center.

Donor Round Table “Accomplishments and Challenges in the Communal Sector”

On February 26, 2020, ADKOM had the first Donor Round Table on the subject of “Accomplishments and Challenges in the Communal Sector”.

The goal of the Round table was to assist in sharing information among the key stakeholders on the operations and interests of the communal sector.

The Donor Round Table was opened by the moderator, Mr. Jane Vrteski, as he presented the main and the specific goals, as well as the agenda of the event.

After the discussion the moderator shared the following conclusions:

• Maintaining the dialogue among the key stakeholders in the water sector is crucial and it must persist in the future

• ADKOM’s initiative for establishing an inter-ministerial working group for improved coordination of the stakeholders in the water sector.

• ADKOM needs institutional support in order to meet the challenges before the PUCs.

• Strengthening the PUCs capacities is crucial and it should be regarded as a capital investment. The ADKOM Training center will continue to deliver its services and through the trainings will work on active capacity building of its members. So far, the center is supported by SECO and GIZ, through the project “Regional Capacity Development Network for Water and Sanitation Services” (RCDN), however it is expected that there will be cooperation with other donors as well.
Disinfection of the streets of Bitola during curfew

“As part of the activities for handling the pandemic, PC “Komunalec” together with other public companies will wash and disinfect the streets of Bitola even during the curfew hours”, stated the director of PC”Komunalec”, Pande Bogoevski.

– “Our people have a very appropriate saying to the situation ‘have the patience of a saint’, and I would add to that ‘all in good time’. This means that the Municipal crises Headquarters started undertaking all the necessary measures from the very beginning of the situation, in order to help in all possible ways and with all possible resources in the handling of the crisis. So, for the disinfection of the vehicle coming into our town, we had a simpler solution at the beginning, but as we were preparing for the peak of the crises we started another system of disinfection, where we would spray the vehicles from all sides. This is just one of the measures and it could be an introduction into tomorrow’s activities where we have foreseen to disinfect the entire territory of the Municipality of Bitola. This would include all streets and roads, public areas, entrances of residential buildings. PC “Komunalec” together with the other public companies, like “Vodovod”, “Niskogradba”, “Pazari” and with the help of REK Bitola, “Strezhevo”, and other institutions are constantly on site and during curfew hours, when the citizens are at home – state Pande Bogojevski, director of PC “Komunalec” Bitola, M.M.

Source: https://www.novamakedonija.com.mk/kovid-19/vo-zemjava-19/%D0%B4%D0%B5%D0%B7%D0%B8%D0%BD%D1%84%D0%B5%D0%BA%D1%86%D0%BA-%D1%83%D0%BB%D0%BD%D0%BE-%D0%B1%D0%B8%D1%82%D0%BE%D0%B8-%D0%B8-%D0%B7%D0%B0/
The General Director of PC “Vodovod I Kanalizacija” – Skopje, Mr. Dushko Veskovski had a press conference on which he presented the socially responsible projects executed by the company.

“We are proud and happy that we are the first company in the country that issues invoices on on recycles, ecological and biodegradable paper” – said Veskovski, announcing the printing and distribution of the redesigned invoices on on recycles, ecological and biodegradable paper. This is a number of 210,000 invoices which are issued on a monthly basis to the end-users, i.e. 2,500,000 invoices that are potential waste on annual basis. “Apart from our insistence to work on capital projects, our PC works on establishing of a different practice, which I hope would be a positive example for everyone to follow” – stated the director of the PC “Vodovod I Kanalizacija” Skopje, adding that the company started using recycled paper for internal and external use last year.

The benefit from replacing the paper produced from trees with recycled paper means 60% saving of energy and 15% reduction of water consumption. By taking this step and by introducing the international standard ISO 14001, PC “Vodovod I Kanalizacija” Skopje becomes an “Environment friendly” company, which means that it meets the European standards for environmental protection

Besides the regular way of receiving and paying the bills, the user have the possibility to use online services available at the company’s website: www.vodovod-skopje.com.mk, where they can get an electronic invoice and pay it either as a registered user or by the speed payment option.

“It is our duty to protect the environment, to keep it clean, because a clean and healthy environment means clean and healthy potable water, which ultimately is our priority” – said Mr. Dushko Veskovski. He added, that PC “Vodovod I Kanalizacija” Skopje, started to cooperate with Pakomak, as a partner in the raising of the awareness of the citizens about the importance of the recycling, protection and correct use of water resources, having in mind the climate changes that affect every segment of the environment.

The General Manager of Pakomak, Mr. Filip Ivanovski, stated his satisfaction from the newly established cooperation with PC “Vodovod I Kanalizacija” Skopje and announced that the cooperation would improve as there are several projects of mutual interests that both entities will cooperate on.

Source:  https://vodovod-skopje.com.mk/mk-MK/81/5110/%D0%88%D0%9E_%D0%92%D0%BE%D0%B4%D0%BE%D0%B2%D0%BE%D0%B4%D0%B8%D0%BA%D0%BE%D0%B2%D0%BE%D0%B5%D0%B4%D0%B0%D0%9F_%D0%92%D0%BE%D0%B2%D0%BE%D0%B4%D0%B8%D0%BA%D0%BE%D0%BF_%D0%B1%D0%B8%D0%BB%D0%BE%D0%B8%D0%BD%D0%B0-%D0%A1%D0%BA%D0%BE%D0%B7%D0%B3%D0%B0_%D0%9D%D0%BA%D0%B0_%D0%BC%D0%BE%D0%BD%D0%B0_%D0%B3%D0%BE%D0%BD%D0%BE%D0%BF%D0%B8%D0%B2%D0%BE%D0%B5%D0%B2%D0%BE%D0%B5%D0%B4%D0%B0.html
Second disinfection of the public areas in the Municipality of Novaci

On April 8, 2020, the Municipality of Novaci and the PUC “Komunalna Higiena” started the second stage of disinfection of all public areas, premises, urban equipment, most frequented locations and pedestrian zones.

This activity is part of the prevention measures from coronaviruses, as adopted by the Municipal Crises headquarters, headed by the Mayor Kuzmanoski.

The staff of “PUC “Komulana Higiena” work according to the determined schedule, during weekends and curfews when the citizens are at home.

Besides the disinfection, the operational plan includes activities of washing of local streets, roads and sidewalks upon previously determined priorities and sequence.

In order to provide better protection of the public health, the Municipality of Novaci recommended to all the citizens that they respect the measures of the Government, the recommendation of the Ministry of Health as well as the measures and recommendations of the Municipal Crises Headquarters, especially in terms of personal hygiene and disinfection of homes.

Source: https://tera.mk/vtora-dezinfekcija-na-javnite-povrshini-vo-opshtina-novaczi/
PUC “Proleter”- Resen disinfecting the streets of the town
Public Utility Company “Proleter” – Resen continued to disinfect the streets of Resen and the surround areas

The disinfection was performed with sodium hypochlorite and the main streets of the town were disinfected; this activity will continue in the next days as well, informed the representatives of the municipality.

The Municipality of Resen appeals to all citizens on the territory of Prespa to stay home and not leave their houses unless really necessary, and so protect their own and the health of others./ MIA.

PC “Vodovod” – the first public company to introduce mobile applications for Android and IOS

PC “Vodovod I Kanalizacija” – Skopje keeping up to speed with the technological development enabled access to its services in a fast, easy and simple manner – by introducing a mobile application.

PC “Vodovod I Kanalizacija” – Skopje is the first public company in the region to enable this type of service for its customers. The mobile application is available for Android and IOS.

“Once you install the application you will have the possibility to register as e-user and you can access your profile, review your registered numbers as a user, add new ones if you need, you can update your data etc. By using the mobile application, you have the unique opportunity to pay your invoices and to report or update your meter, just by entering the number and a photo of the meter. With the mobile application of PC “Vodovod I Kanalizacija” – Skopje you have the possibility for fast, easy and simple reporting of defects, but also to get more information about onsite works, defects, news and information sent from our company. If you wish to visit us, please use the map, which is given with the application, and you can find us easily”, said the representatives of PC “Vodovod I Kanalizacija” – Skopje.

Use your time wisely and download our application. Stay home and respect the recommendations from the authorities for the prevention of spreading the virus.