Minutes of

Tengizchevroil LLP Future Growth Project -Wellhead Pressure Management Project

Consultation Meeting

Venue: TCO Headquarters, Atyrau

Date & Time: October 8, 2018

15:00 - 16:30

R. Artygaliev, TCO General Manager, Policy, Government and Public Affairs, informed participants that TCO continues holding annual consultation meetings with Atyrau Oblast Community. The objective of the meeting was stated, which was to give an overview on work progress within TCO FGP - WPMP, and listen to the audience opinion regarding TCO and Project. He emphasised that the consultation meeting was not a public hearing. It was stated, that presentation about the Project would be introduced followed by Q&A Session, and if attendees would like to address their requests in written form, they could use special forms provided to each attendee. R. Artygaliev noted that in case of any further queries the attendees could address TCO by the contact information provided in handouts distributed to all the meeting participants.

It was emphasized by R. Artygaliev, that TCO contacted to all attendees who addressed written requests on previous meeting and provided answers to their questions.

Further, as per the agenda, Nurtas Kenganov, FGP-WPMP Regulatory Affairs Manager, delivered a presentation on TCO and FGP-WPMP activities.

It was followed by Q&A session.

- **M. Kudaibergenov:** During the presentation, it was said that there are 12 air quality monitoring stations, please advise their locations. Also, I'd like to ask you to clarify the depth of 126 wells used to monitor ground waters as well as their locations.
- **A. Zhylkaidarova (TCO):** 12 air quality monitoring stations are located within and outside of sanitary protection zone (SPZ). This arrangement allows us to control the concentration both within and outside SPZ. They are mainly located along the boundary of the zone. As for 126 groundwater observation wells, monitoring is carried out in accordance with Standards and Methods, depths are different.
- **A. Kalelova (TCO):** 30 of 126 wells are background wells and located within the territory of SPZ on southern part, these wells determine basic concentration of groundwater. Other 90 wells are located around company facilities. They determine from 5 to 20 components. Major components are chlorides, nitrates and nitrites. The depths vary from 20 cm to 1 m.

- M. Kudaibergenov: Does TCO have its own stations in the city as NCOC has?
- **R. Artygaliev (TCO):** We don't have stations installed in Atyrau, as TCO does not carry out industrial activities within the territory of the city.
- **M. Kudaibergenov:** TCO has good achievements in social sphere and healthcare development in Kazakhstan and Atyrau. But, we are lack of monitoring points. It would be great to have them in Atyrau city.
- **R. Artygaliev (TCO):** As mentioned earlier, monitoring is carried out both within and outside SPZ. We have one station in Zhana-Karaton Village.
- **M. Kudaibergenov:** 126 wells are too many and the depth is too low. How could ground waters migrate at the depth of 2-3 meters?
- **R. Artygaliev (TCO):** We have background wells, since there is the sea nearby, water presents on the surface on the depths from 20 cm to 1 m. Monitoring data is submitted to Atyrau Oblast Territorial Committee.

Tolemissova (Atyrau State Univeristy named after Kh.Dosmukhamedov): Do you have historical data on groundwater components and condition before production start to make comparison? Do you have data on water and air monitoring? How are you going to reduce water consumption? Will it be achieved by common measures of reduction, water reuse technique or new technology adoption?

A. Kalelova (TCO): In order to make analysis and comparison, we conduct background monitoring. We compare background levels of chemical and physical conditions during the analysis. Additionally, we compare the data against basic examination outcomes and MAC.

Tolemissova (Atyrau State Univeristy named after Kh.Dosmukhamedov): Are observation wells located in the village?

R. Artygaliev (TCO): These wells are located outside the production area.

Tolemissova (Atyrau State Univeristy named after Kh.Dosmukhamedov): It is possible to take samples in adjacent villages to prove that the data is reliable and you do not make any negative effect.

- **A. Kalelova (TCO):** Our background wells are selected in such a way that does not have any impact, and installed far away from industrial facilities. Examinations are not carried out in villages, since SPZ covers a big territory.
- **R. Artygaliev (TCO):** SPZ boundaries are located 10 km away from the utmost facility in the field. Background wells are installed on the area, where there are no production activities to compare the data against basic values.

- **A. Kalelova (TCO):** As for the availability of historical data, we have data collected since 2006. As for air monitoring, we use background figures provided by KazGidromet to find out a background value. Data from environment monitoring stations is submitted to Atyrau Oblast Ecology Department on quarterly basis in the form of statistical analysis.
- **R. Artygaliev (TCO):** The monitoring stations were modernized in 2014.
- **A. Kalelova (TCO):** All weather stations and gas analysers were replaced.
- **A. Kalelova (TCO):** Currently, we are actively working on reducing water consumption. Firstly, water is reused. Water is properly recycled in WTF, then it is reused for plant needs. Further, water passes an additional treatment before being used in facilities' water supply systems. Secondly, water accumulated from ground waters is reused for ground compacting and dust suppression. In addition, we have initiated a Program in Tengiz Rotational Village, which includes making agreements with all contracting companies on water use and installing systems, which allow to save water. Also, water consumption monitoring devices were installed.

Tolemissova (Atyrau State Univeristy named after Kh.Dosmukhamedov): What is the percentage for water used in industrial purposes? Is it planned to utilize waterless technologies? That's the kind of thing we should think about right now. You see what conditions Zhaiyk River has today.

- **A. Kalelova (TCO):** We have a dedicated team, which is in the charge of studying alternative sources of water supply.
- **R. Artygaliev (TCO):** Water issue was studied in cooperation with Akimats of Mangystau Oblast and Atyrau Oblast, various sources of water were considered. We are still working on it. Today, water is supplied from Kigach water pipeline. We put into operation a water treatment facility. 30% of supplied water is reused. Despite the construction works being actively conducted within FGP-WPMP, the water consumption volumes are still ensured on the level which we had before commencing works on FGP-WPMP through the water reuse.
- **G. Nurzhigitova (Mugedek Alemi):** What is percentage for disabled people employed by TCO and its Contractors? We have several projects and would like to cooperate with you within them.
- **A. Sagingaliyev (TCO):** As per the legislation, disabled people may constitute 3% of the whole staff. Due to the peculiarities of our enterprise and considering the presence of hazardous factors, we could not hire people with disabilities. However, 1% of TCO Office employees in Atyrau is held by disabled people. As for contracting companies, we are not allowed to require such information from them, because it is considered as confidential information in accordance with Labour legislation.
- **D. Temirkhanova:** I'm a winner of Zharkyra Project of 2016. I'd like to express gratitude to TCO for contribution in social entrepreneurship development in our region. I'm planning to open a non-governmental organization for working with people with disabilities. I want not only teach disabled people in my education centre, but also further develop their skills to become an entrepreneur. But,

I have faced some problems with venue and funding. In my centre I'd like to hold workshop sessions and help people to succeed in business. We need rooms to be used as co-working space to allow people to work together and communicate with each other. What support can be provided by TCO in regard to this issue?

R. Artygaliev (TCO): Unfortunately, TCO can't help with building. Chevron plans to open Youth centre in Atyrau, where it's expected to dedicate space for such projects. We hope that this centre will be able to resolve many of such issues. TCO will continue to provide funding within the Zharkyra Project and is starting to adopt the project in Mangystau Oblast.

Conclusion

R. Artygaliev thanked the residents for participation and noted that consultation meetings with the community will be arranged every year until the completion of the project.

Summary of issues

Following the consultation meeting and based on the questions provided in writing, below is the short list of issues and questions raised by attendees at the meeting in Atyrau:

- Ecological issues;
- Social issues.