| **Working program** **for presence of REA expert in TAVANA Co. concerning the Pipeline & Reactor Internal Vibration Analysis** |
| --- |
| Date | SUBJECT | Schedule/responsible |
| 8:30-12:30 | 14:00-17:00 |
| Sat | 11.11.17 | Introduction | * Introduction of the experts/participants
* TAVANA presentation about pipeline vibration analysis Methodology of BNPP-1
* Presentation of Russian experience about pipeline vibration analysis by Mr. Sergey B. Kravets
 |
| sun | 12.11.17 | Pipeline Vibration Assessment (Presented by: Mr. Sergey B. Kravets) | - Available Standards and/or Guidelines- Acceptance criteria | - Visual assessments |
| Mon | 13.11.17 | Potential excitation mechanism(Presented by: Mr. Sergey B. Kravets) | -Mechanical Excitation -Flow induced turbulence-Pulsation-High frequency acoustic excitation -Water hammer-Cavitation-Slug flow |
| Tue | 14.11.17 | Pipeline vibration measurement techniques(Presented by: Mr. Sergey B. Kravets) | -Modal Response technique-Strain (Stress) measurement technique | -Instrumentation and vibration measurement requirements |
| Wed | 15.11.17 | Specialist predictive techniques(Presented by: Mr. Sergey B. Kravets) | -Structural FEM, CFD, Acoustic FEM, Pulsation analysis, … |
| Thu | 16.11.17 | Static & dynamics Simulation using CAESAR II and/or Autopipe Software | Static & dynamics Simulation using CAESAR II and/or Autopipe Software |
| Fri | 17.11.17 |  |  |  |
| Sat | 18.11.17 | Static & dynamics Simulation using CAESAR II and/or Autopipe Software | Static & dynamics Simulation using CAESAR II and/or Autopipe Software |
| Sun | 19.11.17 | Pipeline Vibration Measurement and Analysis(Presented by: Mr. Sergey B. Kravets)  | -Methodology-Corrective actions |
| Mon | 20.11.17 | Reactor Internal Vibration Analysis/Monitoring | - TAVANA presentation about Reactor Internal Vibration Analysis/Monitoring Methodology | -Presentation of Russian experience about Reactor Internal Vibration Analysis/Monitoring by Mr. Sergey B. Kravets |
| Tue | 21.11.17 | Reactor Internal Vibration Analysis/Monitoring(Presented by: Mr. Sergey B. Kravets) | -Sources of excitation-Application of neutron noise analysis method-other methods- Final Methodology |
| Wed | 22.11.17 | Examining of a sample example | Vibration analysis of main condensate pipeline  |
| Thu | 23.11.17 | Examining of a sample example  | Corrective actions for reducing main condensate pipeline’s vibration |
| Note: All subjects should be presented separately (Preferably in English version if available). |