Bio-preparations & Application of MicrobeLift®/IND and MicrobeLift®/SA

Location: City of Syzran, Samara Region, Russian Federation

Background: At Syzran Oil Refinery in the department of Biological treatment facilities from 2/14/2015 through 1/13/2016, the bio-preparations of MICROBE-LIFT[®]/IND and MICROBE-LIFT[®]/SA were tested. Before the testing there were the following problems at the Biological treatment facility:

- Huge foam-formation in the aerator tanks-mixers
- Weak nitrification process
- Process of hydrocarbon degradation was not profound enough
- Big amount of suspended substances in the treated water
- Odor of oil-product from the circulating sludge Low pH of the treated water

Objective: Initial evaluation of MICROBE-LIFT[®]/IND had the following objectives:

- Improve B.O.D. removal to reduce foaming organic
- Reduce the quantity of sludge generated
- Improve solids settle-ability and dewaterability
- Improve plate-and-frame filter press performance, while lowering flocculation-aid chemical usage
- Reduce operational costs

Results: The application of bio-preparations MICROBE-LIFT[®]/IND and MICROBE-LIFT[®]/SA brought within a short time the following results:

- Declining of foam-formation in the aerator tanks, which was gradually declining at the beginning of the bio-preparations application and nearly stopped at the end of testing
- Nitrification process gradually stabilized
- pH of the treated waste water normalized 6,7-7,2 pH
- Odor of the active sludge disappeared, bio-mass became healthier, sedimentation of suspended substances became better, quantity and quality of the active slime bio-indicators became better and more different
- Process of hydrocarbon degradation became better, what led to the lower number of oil-products in the treated waste water till the ADS-norm.

A half-year after testing, stable treatment was observed according to all indicators.

Conclusion: The application of bio-preparations MICROBE-LIFT[®]/IND and MICROBE-LIFT[®]/SA is necessary for improving the industrial waste water treatment at the refineries because they help to align the waste water treatment process within a short time, to further develop the nitrification process, the hydrocarbon degradation, and to maintain a healthy active sludge / biomass. These preparations are also necessary for emergency bypass episodes.

Bio-preparations MICROBE-LIFT[®]/IND and MICROBE-LIFT[®]/SA contain aerobic, anaerobic and facultative bacteria in one preparation. The application and preparation is beneficial and works for the improvement of all purification measures at once.

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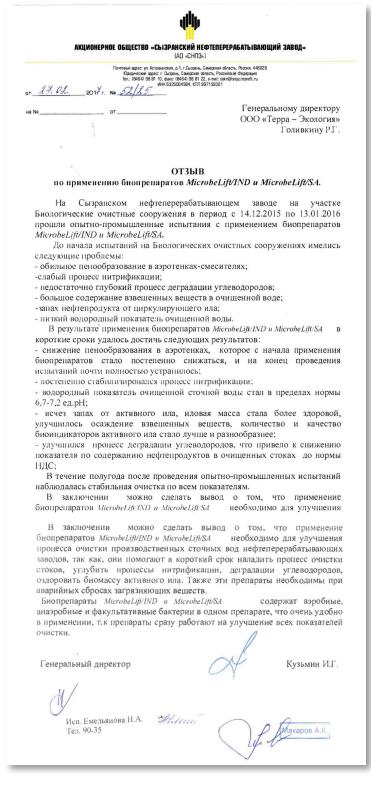
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243

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Addendum:



For more information on MICROBE-LIFT® Technology contact Ecological Laboratories Inc.

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244