

**9. The Establishment of a Method for Purification of Oil-polluted Soil using a Bio-augmentation Technique**  
**- Acquire the Conformity Confirmation of “The Bio-remediation Use Indicator by the Microbe” -**

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Microbial purification of oil-polluted soil has been widely used as it is environment friendly and inexpensive. However, the treatment requires a long period of time. To solve the issue, a method was established (bioaugmentation) that involves introducing two or more isolated strains of microbes that have high oil decomposition capacities from outside. The purification plan that uses the method was confirmed to be in conformity with the “Guideline for Microbial Bio-remediation” of the Japanese government on May 29, 2009. The three isolated strains used in this method have been shown to be safe to people and ecosystems by reference studies and animal experiments and to be effective in oil decomposition by actual purification tests of oil-polluted soil. The method will be used for purifying soils contaminated by various kinds of oil, such as light oil, heavy oil, and lubricating oil, to accumulate experiences and improve purification performances.

**Key words :** bioaugmentation, isolated microorganism, conformity check, safety