

[Form 2 (to be reported to Committee on Countermeasures for Contaminated Water Treatment and to be disclosed to public)

Technology Information	
Area	4(1) and 4(2) ; 5(1) and 5(2) and 5(3); 6(1) and 6(3)
Title	4 Management of contaminated water inside the buildings ; 5 Management measures to block groundwater from flowing into the site; 6 Understanding the groundwater flow
Submitted by	<u>Beck</u> Roland Hirschweg 2 D-84048 Mainburg
<p>1. Overview of Technologies (features, specification, functions, owners, etc.)</p> <p>A, engineering: Structuralisation of the expiry for ground water-stopping and or ground water-running off processes as a result of the most different building measures. Minimisation of the necessary building measures in the depth or surface sealing</p> <p>B, geology: special profiles of soil for detection of round gravel water-leading layers or temporarily ground water flowed through soil layers; Completion of the special profiles of soil in to permanent water level recorder stations or serving as a tube pipe for the improved compaction-grouting-stake-pile.</p> <p>C, Results of the research and Proofs, for example backwater measures in the ground water, Effects of the rising ground water levels on soil erosion, final setting time, radius / distance for pressured material, effects of grain size and pressure</p> <p>D, 1. Implementation of the Compaction-Grouting-Procedure improves by means of geologically conformist grain dimensions cement mixtures and pressure of grouting work for the pile (closed-quartered job relations; within and below buildings; getting reduction of the groundwater flow into the area and out off the nuclear contaminated area).</p> <p>D, 2. Machine technology and procedure technology on the implementation of a tube pipe for the improved compaction-grouting-stake-pile.</p> <p>E, Combination of the improved compaction-grouting-stake-pile with known construction methods.</p>	
<p>2. Notes (Please provide following information if possible.)</p> <p>- Technology readiness level (including cases of application, not limited to nuclear industry, time line for application)</p> <p>A until E: ripe for use for all groundwater flowed areas, however, also temporarily or continuous through flowing soils.</p> <p>B time line for application: Production duration of geologic special drilling explanations</p>	

corresponds to those with the light dynamic probing DPL-5, because they are done with this, 2 new devices for acquisition of the special data are ready, the evaluation of the data occurs inside and can be done in 1 hour. cases of application: more than 100, not limited to nuclear industry;

C cases of application: one, not limited to nuclear industry;

D 1. cases of application: more than 100, not limited to nuclear industry; time line for application: From 1 to 3 pipes a day, according to required amount of pressure-material.

D 2. cases of application: more than 100, not limited to nuclear industry; time line for application: From 1 to 3 pipes bringing down a day, according to required amount of pressure-location-depth

- Challenges: Combination of the points A until E

- Others (referential information on patent if any): Only our patents available, the development and research was protected by our worldwide patent

【Areas of Technologies Requested】

- (1) Accumulation of contaminated water (Storage Tanks, etc.)
- (2) Treatment of contaminated water (Tritium, etc.)
- (3) Removal of radioactive materials from the seawater in the harbor
- (4) yes: Management of contaminated water inside the buildings
- (5) yes: Management measures to block groundwater from flowing into the site
- (6) yes: Understanding the groundwater flow