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**D E C I S I O N**  
**of 28 September 2004**

**Case Number:** T 0146/03 - 3.2.1

**Application Number:** 94100592.8

**Publication Number:** 0596863

**IPC:** B67D 5/54, B67D 5/02,  
G01F 23/18

**Language of the proceedings:** EN

**Title of invention:**  
Portable product refill tank unit

**Applicant:**  
NALCO CHEMICAL COMPANY

**Opponent:**  
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**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 56

**Keyword:**  
"Inventive step - no"

**Decisions cited:**  
-

**Catchword:**  
-



Case Number: T 0146/03 - 3.2.1

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.1  
of 28 September 2004

**Appellant:**

NALCO CHEMICAL COMPANY  
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Illinois 60563-1198 (US)

**Representative:**

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**Decision under appeal:**

Decision of the Examining Division of the  
European Patent Office posted 24 June 2002  
refusing European application No. 94100592.8  
pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** S. Crane  
**Members:** J. Osborne  
S. U. Hoffmann

## Summary of Facts and Submissions

- I. The appeal is directed against the decision of the Examining Division posted 24 June 2002 refusing European patent application No. 94 10 0592.8 (EP-A-0 596 863).
- II. The Examining Division found that the subject-matter of the claims on file was obvious in the light of the following prior art:
- D1: US-A-4 648 521
- D3: EP-A-0 138 718
- D7: US-A-4 659 459.
- III. The appellant requests that the impugned decision be set aside and that a patent be granted on the basis of claims 1 and 2 filed with a letter of 4 November 2002. The Board summoned the appellant to oral proceedings to be held on 28 September 2004 and informed it that the Board found the wording of claim 1 unclear but that in as far as the subject-matter could be understood it did not involve an inventive step. It raised objections also in respect of claim 2. The appellant did not attend the oral proceedings and they were held in its absence in accordance with Rule 71(2) EPC.
- IV. The claims according to the appellant's request read:
- "1. Use of a portable tank as a portable product refill tank unit (40) for transferring and completely emptying a chemical product to a stationary base tank (10) at

the use station of an automated chemical feed system for a process run (11) for monitoring the chemical supply at the use station by a remotely located supply and monitoring station to determine the need for supplementing the chemical supply at the use station, the portable refill tank unit (40) having upstanding side wall means, a top wall (25) including fill means and pressure fitting and a bottom wall (45) including outlet means (46), wherein

- a) the top wall (25) comprises a sealable pressure fitting connected to a pressurized gas supply (42) for pressure emptying the contents of the refill tank (40) into the base tank (10) at the use station;
- b) the bottom is a dish-shaped bottom (45) having an outlet (46) at the lowest point connectable to a discharge line (47) that may be connected to the top of the base tank (10) for unloading the refill tank unit (40) under a gas pressure of about 15 psi and
- c) the refill tank (40) being sized so that it can easily be transported at ground level to the use station on a hand truck (41) and manoevered through relatively standard size doorways.

2. Use of the portable product refill tank (40) according to claim 1 in combination with a system for remotely monitoring the quantity of a chemical supply for a process (11) to determine when to replenish the supply, said system comprising the base tank (10) for the chemical having an outlet (23, 24) adapted to be connected to the process (11) to feed chemical to the process (11), means (13) sensing the level of chemical in the tank (10) and producing an electrical signal in proportion to said level, means receiving the signal and transmitting it to a remotely located supply

station, and means at the supply station receiving the signal and converting it to a readout of the tank level and quantity to determine when to deliver a replenishing chemical supply by means of the said portable product refill tank unit (40)."

V. The appellant's arguments can be summarised as follows:

The closest prior art is known from D3. The subject-matter of claim 1 differs therefrom in that in the system wherein the tank is used the chemical supply is monitored by a remotely located supply and monitoring station and in that the tank has a bottom outlet instead of a dip tube. Contrary to the opinion of the Examining Division it was not obvious when beginning with D3 to replace the dip tube by the bottom outlet. It is not a generally known alternative and the tank according to D1 is completely different from that according to the present invention.

### **Reasons for the Decision**

1. The application generally relates to a portable tank unit for transferring chemicals into a base tank at the use station of a process plant. According to the description it has been customary to provide one or more refill tanks which are stored local to the base tanks. When the refill tanks have been emptied they are replaced by full ones and are taken away to be refilled. However, the conventional refill tanks are said to retain up to about seven percent of their contents after they have been emptied.

The application proposes a refill tank in which the outlet is located at the lowest point whereby the tank may be completely emptied.

2. Claim 1 specifies the use of a portable tank for transferring a chemical product to a stationary base tank at the use station of an automated chemical feed system "for a process run (11) for monitoring the chemical supply at the use station by a remotely located supply and monitoring station to determine the need for supplementing the chemical supply at the use station" (emphasis added). This wording is unclear in context because the process as explained in the description is not run for monitoring the chemical supply; on the contrary the chemical supply is for use in the process. The Board interprets the wording in the light of the description as specifying that the feed system is "for a process run (11) at the use station by a remotely located supply and monitoring station for monitoring the chemical supply to determine the need for supplementing the chemical supply at the use station".
  
3. In the Board's view the closest prior art is that disclosed by D7 which relates generally to computerised control of the introduction of chemicals into a system and in the described embodiment of adding chemicals to the water circulated through a cooling tower. According to D7 the chemicals are stored in a base tank at a use station and the computer is located at a remote supply and monitoring station. The computer periodically senses the level of chemicals in the base tanks and so permits an operator to determine the need for supplementing the chemical supply at the use station.

D7 concerns the plant for running the process itself and is silent as regards filling the base tanks.

- 3.1 As acknowledged by the appellant it was already known to use portable refill tanks to replenish base tanks and the subject-matter of claim 1 essentially differs from that of D7 by the features in claim 1 relating to the tank itself, i.e. that it has upstanding side wall means, a top wall including fill means and pressure fitting and a bottom wall including outlet means, together with the features listed under a), b), and c) in the claim, whereby the feature of the outlet at the lowest point renders the tank suitable for completely emptying the chemical.
- 3.2 D3 discloses a cylindrical refill tank transported on a cart for delivering chemicals to a base tank of a process plant. A supply of gas at about 15 psi pressurises the refill tank to expel the chemicals, the upper end of the tank has both a pressure fitting and a fill means and, as is common with pressurised tanks, the ends are dish shaped. The chemicals are expelled through a dip tube which reaches into a well in the lower end of the tank. D3 is silent regarding the dimensions of the tank and its transport cart but these are merely a matter of choice according to such factors as the desired capacity of the tank and available access. The refill tank as specified in present claim 1 essentially differs from that of D8 only in that the outlet is at the lowest point. However, this is a normal feature in a container from which it is desired to discharge the totality of the contents under gravity, see D1 for example, and its application in a container from which the contents are discharged under pressure

brings no new effect. Such a container and the process plant according to D7 would each operate the same as when used independently and the combination of the two would fall within the normal activity of the skilled person.

- 3.3 The Board therefore concludes that the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC). Under these circumstances it is unnecessary to consider claim 2.

## **Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

A. Vottner

S. Crane