

GEBR. VAN AARLE B.V. HOUTHANDEL, HOUTZAGERIJ EN IMPREGNEERBEDRIJF

OLLANDSEWEG -159 - 181A - 6461 XB OLLAND - SINT-OEDENRODE
TELEFOON (04138) 72481
FAX (04138) 78071
POSTBANK 1028320
BANK RABO SINT-OEDENRODE REK. NR. 1382.08.107
INGESCHREVEN KAMER VAN KOOPHANDEL 'S-BOSCH ONDER NR. 27096

AAD VAN STATE
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PAR

SINT-OEDENRODE, 14 november 1992

- Voorzitter afd. Geschillen van Bestuur
der Raad van State
Postbus 20019
• 2500 EH 's-Gravenhage

Betreft: Beroepsschrift tegen voorlopige voorziening
Hinderwetvergunningsvoorwaarden

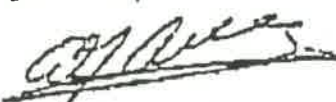
Geachte Voorzitter,

Naar aanleiding van een recente uitspraak (zaak B05.92.0988) tot het treffen van een voorlopige voorziening, mede bepaald door het ambtsbericht van de Adviseur Beroepen Milieubeheer (BARM/25505/SN), het volgende gemotiveerde verzoek tot herziening van gencemde uitspraak.

- het is bedrijfstechnisch en procestechnisch onmogelijk om geen waterdamp te emitteren, daar de temperatuur van het met stoom geïmpregneerde produkt, zeker in het huidige jaargetijde na het complete impregneer- en fixeerproces altijd warmer zal zijn dan de omgeving, die tevens een relatieve vochtigheid bezit tegen de 100%. Hierdoor zal altijd een mist ontstaan.
- de ontstane mist is van dien aard dat, evenals in het ambtsbericht gesteld, maar nu met cijfers bevestigd (zie Bijlage), van enig risico voor de volksgezondheid geen sprake kan zijn.

Op dit moment is het onmogelijk voor ons bedrijf om op welke manier dan ook te produceren, hetgeen vanaf het moment dat de voorlopige voorziening is geëffectueerd een aanzienlijke bedrijfsschade betekent. Met klem verzoeken wij u dan ook uw standpunt in deze te herzien op een zo kort mogelijke termijn.

Hoogachtend,


A.J. van Aarle, directeur

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HICKSON

Hickson Garantor
SPECIALISTEN IN NOUTVERHOUDINGEN

Title : Monitoring of water vapour mist emissions
from Hifix treated timber
Author : Dr. D.A. Lewis
Date : 02.11. 1992
Status : Confidential
Report no.: 92/HIFIX 2

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1. Introduction

In order to reduce pollution potential at a treatment site and in order for companies to meet the 1993-1994 leaching limits proposed by VROM and SKH, treatment companies are developing and using post treatment systems. These post treatment systems accelerate the chemical fixation process of chromium based wood preservatives by adding extra energy, in the form of heat, into the wood.

One of the processes which has gained wide acceptance is the HiFix process. This process relies on the use of steam injected into the post treatment vessel. Heat transfer takes place by the steam condensing on the wood surface. The advantages of HiFix are:

- I optimal moisture conditions for fixation
- II accelerated fixation to meet leaching limits in two-three hours effective fixation time
- III production of a 'clean' surface to the timber
- IV due to temperature/moisture conditions, the quality of the wood is not affected (temperature of wood 40°C-80°C)

As the Hifixed timber is removed from the vessel, warm moist air rises from the timber. This warm air condenses in contact with the cooler outside air and causes the formation of a mist.

A study was conducted at the site of Hickson Garantor (Amsterdam) to determine the potential contamination of the mist.

2. Sampling Protocol

A mist sampling test was conducted at a CCA treatment/Hifix facility situated in Danzigerkade, Amsterdam. The basic protocol was developed after consultation with a representative from Stads Gewest Breda (GGD).

Timber was treated in the normal manner and then a post treatment fixation cycle was carried out in the Hifix vessel. Following the appropriate fixation cycle the timber was pulled from the Hifix vessel and left sitting on the railtrack situated in the drip area between the treatment building and the Hifix building.

When the Hifixed timber was drawn from the vessel, air from the following points were sampled.

- I. 5 cm above the timber
- II. 1 m to the side of the railtrack at a height of 1,5 m
- III. 2 m to the side of the railtrack at a height of 1,5 m

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On the second day point IV was sampled. This sample was taken without timber in the vicinity and with the Hifix and treatment vesseldoors closed. The sample was taken at ground level, representing and was intended to give a drip area background level (sampling time 58 minutes; flow rate 2 L minute).

A diagram of the site with sampling points is shown in figure 1.

The Hifix mist and air was sampled by drawing it through a 25 mm, 0,8 um fixed cellulose ester filter pad on a glass fibre support using an electric sampling pump. The flow rate and sample period were recorded to enable a calculation of the total sample volume.

Each pump was calibrated with the filter in position prior to use. All pumps in the mist, a back-up impinger filled with deionised water was used. This apparatus was used on the sample placed directly above the timber.

When the charge was monitored, the following parameters and conditions were noted:

- a) pump flow rate - 2 litres/minute
- b) sample runtime - 23 minutes
- c) wind speed - light, variable 1,5 km/hour
- d) wind direction
- e) weather - dry + 20°C

The sampling points were situated on the treatment drip area where the localised wind direction can be variable.

2.1. Analysis

Immediately after exposure, each filter and backing pad were sealed in a small, clean container to avoid contamination. The impinger sample was transferred to a clean, liquid tight HDPE bottle.

In the laboratory each filter was, in turn, removed from its container and soaked in 10% 'Spectrosol' hydrochloric acid to dissolve any CCA. The container was then washed with a small volume of acid. The filter was then washed with deionised water and the acid and washings made upto 50 ml in a volumetric flask.

An unexposed filter was similarly treated to give an analytical reagent blank. This allows a calculation of the copper, chrome and arsenic levels of potential contamination sources such as laboratory glass ware, reagents and atmosphere. Figures in the report are presented after deducting these 'blank/blanco' readings.

All the prepared samples were analyzed for copper, chromium and arsenic using atomic absorption spectrophotometric techniques.

3. Results

The results of the monitoring programme are shown in table 1 and have been corrected for 'drip area' background levels.

Sampling Point	Concentration mg/m ³ (uncorrected results in brackets)		
	Cu	Cr	As
5 cm over timber	0,009 (0,009)	0,0082 (0,009)	0,003 (0,006)
1 m to side	0 (0)	0,0022 (0,003)	0 (0,002)
2 m to side	0 (0)	0,0032 (0,004)	0 (0)
Drip area background	0 (0)	0,0008	0,003
Impinger	None detected	None detected	None detected

Table 1: Results of Hifix mist analysis

4. Conclusion

The results of this study, indicate that the level of contamination in the Hifix 'mist' are very low and are significantly below the occupational limits. The contamination of the mist could have been caused by, for example, dust or wood particles being moved in the warm air and drawn into the filter.

The drip area background levels are within the range found for treatment plants in, for example, the United Kingdom.

When making comparisons with occupational standards, it should be noted that the Hifix process is not a continuous process but a batch process. Under these circumstances the release of steam will not be continuous but for only a short period of time after each charge is removed from the vessel. This may vary from zero to two/three times per day at a typical working plant. It should also be appreciated that the timber is coming out the vessel after the fixation process during which time the chromium will have been reduced from Cr VI.

From these figures it is suggested that there is not a health risk to operators or neighbouring properties when using the Hifix process.

Date: 4.11.1992

Dr. D.A. Lewis

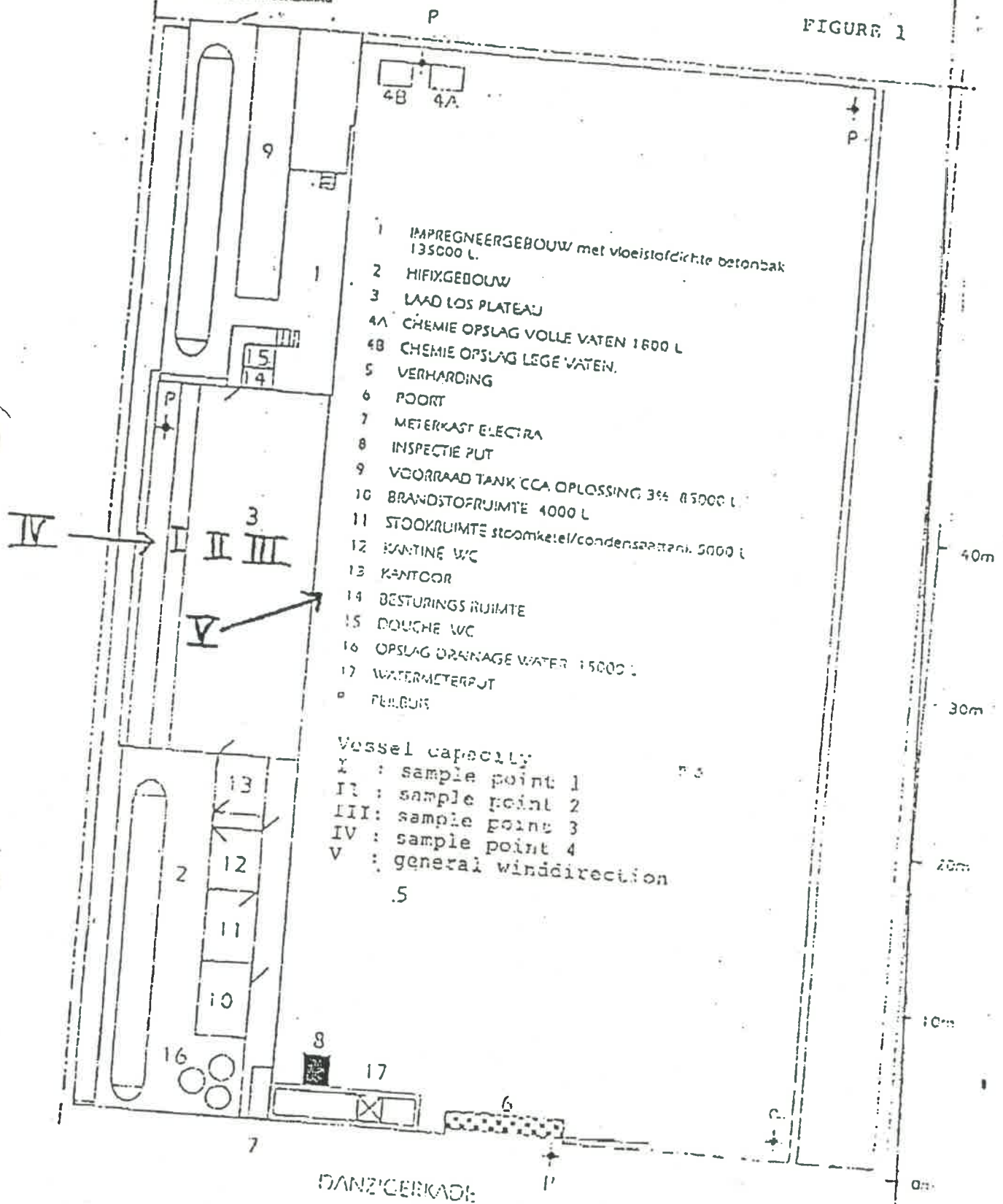
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Member of Hickson International PLC

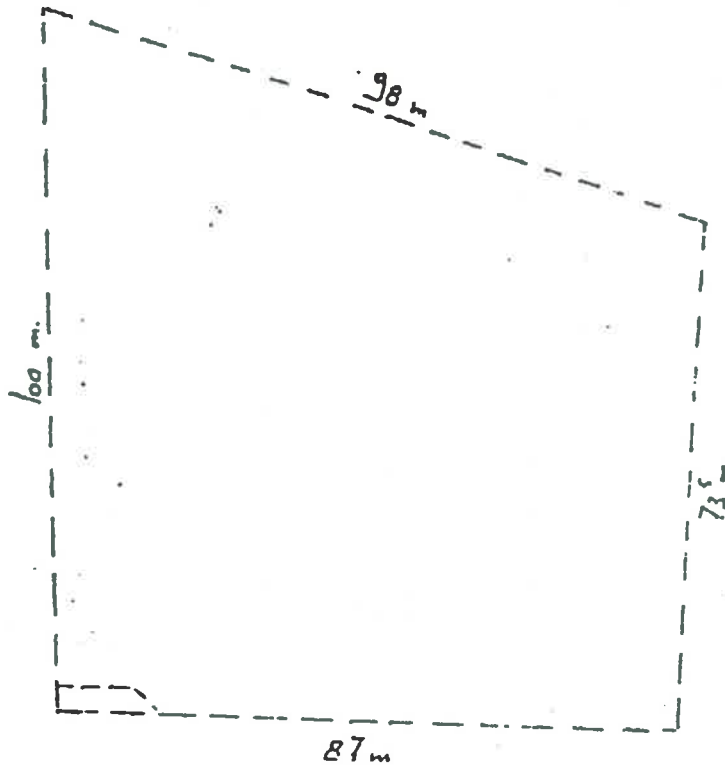
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FIGURE 1



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TERREIN GRENZEN

ZIE Tek. No. H.1.