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# PROCESS PACKAGE FOR DISPOSAL OF SEP CONTENTS AT UCIL, BHOPAL

SPONSOR :

M/s.UNION CARBIDE INDIA LIMITED, BHOPAL



National Environmental Engineering Research Institute  
Nehru Marg. Nagpur - 440 020

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EX 26

## FOREWORD

The Government of Madhya Pradesh proposes to utilise the land occupied by the erstwhile solar evaporation ponds (SEP) at Union Carbide India Limited (UCIL), Bhopal to establish an industrial estate as a part of the rehabilitation programme for gas victims. UCIL retained National Environmental Engineering Research Institute (NEERI), Nagpur in May 1992 to prepare a detailed Environmental Management Plan (EMP) for disposal of pond contents before the SEP area is utilised.

This report presents the baseline data on ground water and land components of environment, as also on the treatment alternatives for pond contents. An Environmental Management Plan has been delineated for containment of pond contents in a secure landfill.

The cooperation and assistance rendered by the staff of UCIL in the course of our study programme is gratefully acknowledged.



( P. Khanna )

Nagpur  
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## RECOMMENDATIONS

- \* The impounded water in Pond I has to be diluted with fresh water to obtain chloride level of 1000 mg/L before discharging into nallah
- \* After studying various alternatives such as land treatment, water extraction and solidification for the treatment of sediments, it is recommended to convert Pond III as Secure Landfill for storing the sediment of Pond II
- \* If pond water cannot be diluted and discharged into nallah, the water should be pumped into landfill in stages. If the chloride content of sediment in Pond I exceeds 0.02% the sediment should be transferred to landfill
- \* The landfill should have a flexible membrane liner, drainage layer and finally a clay cover to prevent leachate generation
- \* No building or well should be constructed above the landfill. However the landfill can be converted into a garden or can be used as parking for vehicles