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**SECOND EXPLANATION OF SIGNIFICANT
DIFFERENCES
for the
JOHNS-MANVILLE SITE
WAUKEGAN, ILLINOIS**

INTRODUCTION

From the 1920's through the mid-1980's, Johns Manville International, Inc. (Johns Manville), operated a 300 acre property in Waukegan, Illinois, as an asbestos manufacturing and landfill facility. Johns Manville owned and still owns this facility property. The formal disposal area at the facility property covers approximately 150 acres. The Johns-Manville Superfund Site consists of the majority of the facility property, plus three associated contaminated areas.

Johns Manville deposited wastes containing primarily asbestos and, to a lesser extent, lead, chrome, thiram and xylene, at the Site since about 1928. In the mid-1980's, Johns Manville stopped using asbestos in its manufacturing processes at the facility. Johns Manville discontinued all manufacturing activities at the facility in 1998. The United States Environmental Protection Agency (U.S. EPA) listed the Site on the National Priorities List, 40 C.F.R. Part 300 (NPL), in December 1982. Johns Manville completed a Remedial Investigation/Feasibility Study (RI/FS) in 1987 and U.S. EPA executed a Record of Decision (ROD) in June 1987. Negotiations between U.S. EPA and Johns Manville resulted in a settlement for design and construction of the remedy as specified in the ROD.

Johns Manville completed the construction of the remedy on August 21, 1991. However, conditions discovered during construction necessitated some changes and U.S. EPA allowed some other changes to the original remedy outlined in the ROD. A February 9, 1993, Explanation of Significant Differences (ESD) outlined these changes. Recently, the shutdown of Johns Manville's manufacturing facility in 1998 necessitated or allowed further changes in the remedy, which are the subject of this second ESD.

Therefore, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 117(c), 42 U.S.C. § 9617(c), and Section 300.435(c)(2)(I) of the National Contingency Plan (NCP), 40 C.F.R. § 300.435(c)(2)(I), U.S. EPA is publishing this second Explanation of Significant Differences. As required by Section 300.825(a)(2) of the NCP, 40 C.F.R. § 300.825(a)(2), this ESD will become part of the Johns-Manville Administrative Record which is available for review at the Waukegan Public Library located at 28 North County Street, Waukegan, Illinois and the U.S. EPA Records Center located at 77 West Jackson Boulevard, Chicago, Illinois. The information used in U.S. EPA's assessment is currently available at the cited repository.

SUMMARY OF SITE HISTORY, CONTAMINATION, AND SELECTED REMEDY

Within the on-site disposal area (see Figure 1), Johns Manville's asbestos disposal pit was designed to receive friable asbestos wastes from the manufacturing processes, while the miscellaneous disposal pit and the sludge disposal pit were designed to receive non-asbestos-

containing materials from the manufacturing processes that had been dredged from the on-Site wastewater treatment system. The on-Site wastewater treatment system, permitted by the State of Illinois in 1973, consists of a series of unlined ponds and waterways where fibrous materials in the facility's wastewater settled over time. Johns Manville periodically dredged these deposited materials, then transported them to and deposited them in the miscellaneous and sludge disposal pits. In addition, Johns Manville deposited asbestos-containing and miscellaneous waste materials in large piles at the northern, southern, and most of the western boundaries of the Site.

The 1987 Johns-Manville Remedial Investigation indicated the need to prevent releases of asbestos and particulate matter into the air. It also indicated a need for further air, ground water, and surface water monitoring at the site and a mechanism for remediation of any contaminants detected in concentrations that would present an endangerment to public health and the environment.

Johns Manville evaluated different alternatives to address the site contamination problems in the Feasibility Study and after detailed analysis of the alternatives, U.S. EPA issued a Proposed Plan detailing U.S. EPA's proposed remedy. After taking into consideration all public comments, the Regional Administrator signed a ROD on June 30, 1987. The remedy specified in the ROD included provisions for a soil cap for the waste disposal/landfill areas and included the following provision that is relevant to this ESD:

“The miscellaneous disposal pit, sludge disposal pit, and wastewater treatment system will continue to operate . . .”

The United States, the State of Illinois, and Johns Manville entered into a consent decree for the design and implementation of the selected remedy. The U.S. District Court for the Northern District of Illinois entered the consent decree in March 1988. Johns Manville started physical construction of the remedy in November 1988 and completed construction in August 1991. With the exception of the miscellaneous disposal pit, all dry waste piles were provided with a soil cover, with vegetation, as specified in the ROD. As previously mentioned, U.S. EPA documented changes to the ROD that it approved during remedy implementation, in the February 9, 1993, ESD.

Johns Manville shut down the facility in the summer of 1998; however, it has not closed the remaining areas of the wastewater treatment system. Johns Manville continues to pump storm water runoff into the wastewater treatment system to maintain a wet condition and prevent any airborne asbestos releases from the sides or bottoms of the ponds.

DESCRIPTION OF THE SIGNIFICANT DIFFERENCES

In this document, U.S. EPA is making the following additions to the ROD:

Closure of Remaining Wastewater Treatment Ponds and On-Site Landfill Areas.

The remaining wastewater treatment ponds at the Johns Manville Site currently include, without limitation, the paper mill ditch, catch basin, mixing basin stages 3, 4, and 5, settling basin, collection basin, industrial canal, and pumping lagoon (See Figure 1). All of the on-site landfill areas and the remaining wastewater treatment ponds, with the exception of the collection basin, industrial canal and pumping lagoon, must be closed. Due to the possibility that dredged materials from the Waukegan Harbor dredging project may be placed in the settling basin, the settling basin may only remain open until:

- January 1, 2004;
- such time as the dredging project is completed; or
- the settling basin is rejected as a disposal option, whichever occurs first.

Closure of the ponds, including the settling basin if the dredged materials from Waukegan Harbor are not placed there, must include (a) the cessation of pumping storm water runoff into the former wastewater treatment system; and (b) the placement and maintenance of a vegetated soil cover over the portions of the system leading to the settling basin, in accordance with the cover requirements in the 1987 ROD. If the dredged materials from Waukegan Harbor are placed in the settling basin, the closure requirements for the settling basin will be in accordance with the applicable permit requirements.

The sediments in the collection basin, industrial canal, and the pumping lagoon must be sampled for asbestos. Based on the results of this sampling, U.S. EPA will require further action, as appropriate. Such action may include, without limitation:

- no action (if no asbestos over 1% is found);
- pickup of visible debris in these waterways;
- development of a contingency plan to assess and implement remedial actions for a situation where the water level in any of these ponds drops to a point where any asbestos-containing materials become exposed to the air;
- dredging of all or a portion of these waterways; or
- a combination of these actions.

Additionally, action must be taken to ensure that the soil cover on the side slopes of the industrial canal, the pumping lagoon, and the borrow pit remains protected from erosion (e.g. the outlet pipe from the industrial canal to Lake Michigan could be kept open and free of debris to

stabilize the water level in these ponds). Some of the actions listed in this paragraph could be addressed through an addendum to the existing Operation and Maintenance Plan for the Site.

The on-site landfill areas (i.e. the miscellaneous disposal pit and the portion of the collection basin where waste materials were deposited- see Figure 1) must be closed in accordance with 35 Ill. Adm. Code Part 811.

THE BASIS FOR THIS ESD

The basis for these changes in the ROD are that pond closure is more cost-effective and has greater long-term effectiveness than continually pumping storm water runoff into the former wastewater treatment system. Additionally, keeping water in the settling basin, which has a water level approximately 15 feet higher than the water table, would continue to exert a pressure head on asbestos containing material in and around the settling basin, which would increase the potential for asbestos migration in the ground water. Since the facility is closed and no more waste materials are being generated, closure of the on-site landfill areas is required by law.

SUPPORT AGENCY COMMENTS

The State of Illinois does not concur with this Second ESD. The reason that the State is not concurring is that it feels that the current State landfill regulations, which have a three foot or six foot soil cover requirement, should apply to the closure of the wastewater treatment system ponds. This would be in lieu of the 24-inch-plus-vegetation requirements for soil cover in the 1987 ROD. In accordance with "A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Documents", OSWER Directive 9200 1-23P, July 30, 1999, U.S. EPA generally reopens the ARARs for a site only if (a) U.S. EPA issues a ROD Amendment for a site; or (b) for the issuance of an ESD, U.S. EPA adds a new remedy component. Neither is the case here. The changes outlined in this ESD do not rise to the level that would require a ROD Amendment since these changes are not fundamental changes to the remedy, and add no new remedy components to the ROD. The remedy remains, in all cases, soil cover with vegetation, as specified in the 1987 ROD.

The State felt that U.S. EPA should pursue a ROD Amendment, to allow for the application of the new landfill regulations. The desire to apply more stringent regulations is not, in and of itself, a legitimate reason for pursuing a ROD Amendment. Further, the 1987 ROD's cover requirements are in full compliance with ARARs and are more stringent than analogous requirements for inactive asbestos waste disposal sites in the Clean Air Act's National Emission Standard for Asbestos, 40 C.F.R. Subpart M. For these reasons, U.S. EPA will proceed to execute this ESD. U.S. EPA feels that, for the Johns-Manville Site, the 24-inch soil cover, with vegetation, is, and remains, protective of human health and the environment.

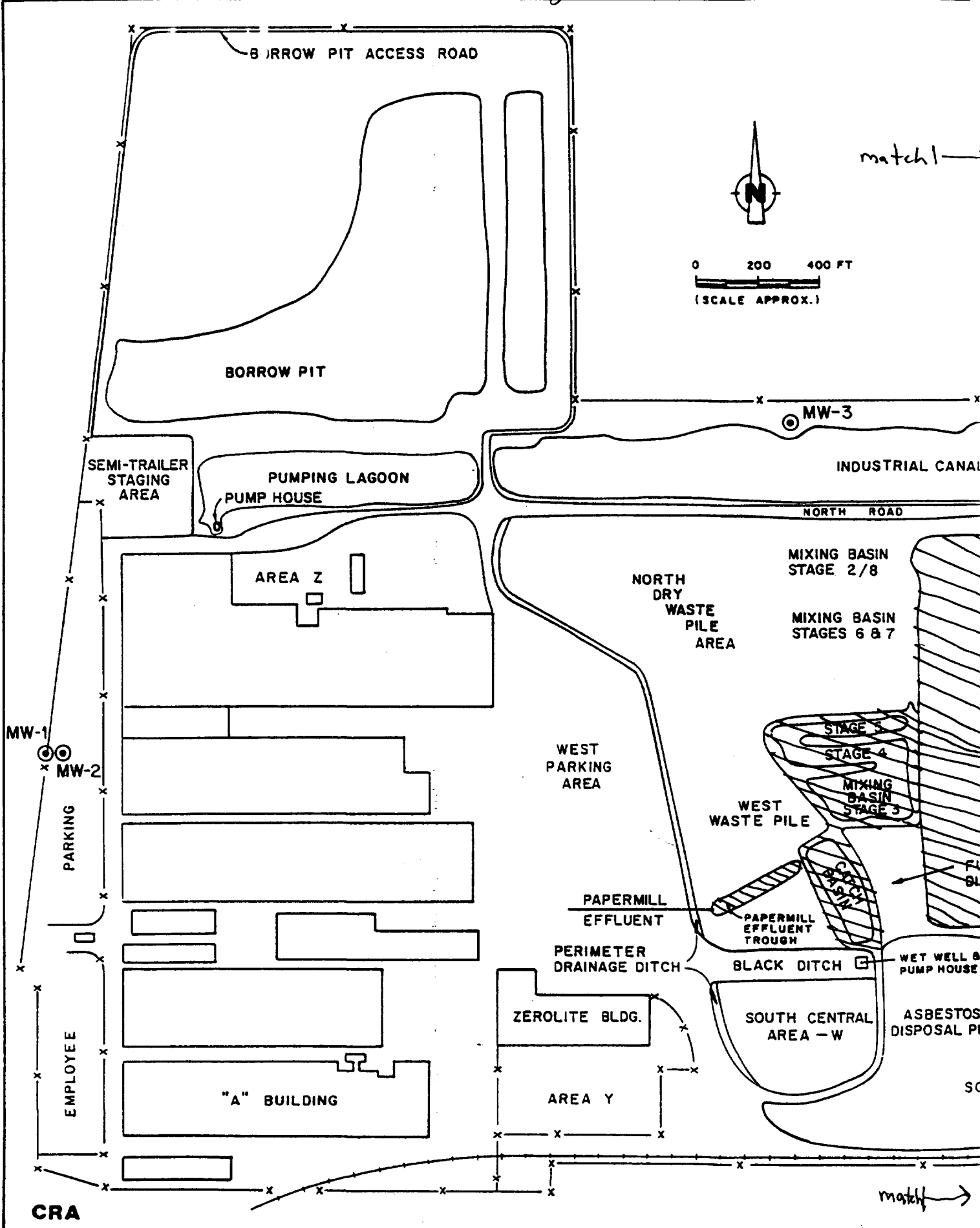
AFFIRMATION OF THE STATUTORY DETERMINATIONS

Based upon changing Site conditions and upon the information provided by Johns Manville regarding its proposed demolition of facility buildings, U.S. EPA has changed the remedy selected in the ROD. U.S. EPA believes that the remedy remains protective of human health and the environment. The changes comply with federal and state requirements identified in the ROD as applicable or relevant and appropriate to this remedial action. The revised remedy uses permanent solutions and alternate treatment technologies to the maximum extent practicable for the Johns-Manville Site and is cost effective.

Concur Richard C Karl for 9-22-00
William E. Muno Date
Superfund Division Director

Not Concur _____
William E. Muno Date
Superfund Division Director

Figure 1




Key:  Remaining Wastewater Treatment Ponds

Figure 1

KEY

- ⊙ Monitoring Well Location
- MW-10 Monitoring Well Number
- ▲ Surface Water Sampling Location
- N-LAKE Surface Water Sampling Identification

← match

NOTE: Monitoring Wells MW-X, MW-Y and MW-Z used for water level data only. No samples collected.

