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Approved 4-10-85
Date

MINUTES OF THE SENATE COMMITTEE ON ENERGY & NATURAL RESOURCES

The meeting was called to order by SENATOR MERRILL WERTS at
Chairperson

8:00 a.m./~~XX~~ on APRIL 3, 1985 in room 123-S of the Capitol.

All members were present except:

Committee staff present:

Ramon Powers - Research Department
Don Hayward - Revisor's Office
Nancy Jones - Committee Secretary

Conferees appearing before the committee:

Barbara Sabol, Secretary, Department Health & Environment
Morris Kay, Regional Director, U.S. Environmental Protection Agency

HB 2578 - State water plan; small lakes program

Hearing and discussion having been held on April 2, 1985, action was taken by the committee. Senator Vidricksen moved to favorably recommend HB 2578. Senator Yost seconded the motion and the motion carried by voice vote.

Barbara Sabol presented a review on administration of the Hazardous Waste Cleanup Fund activities. Prohibition of land disposal of hazardous waste and regulation of alternatives is a reality with the passage of SB 1. Prevention is the most effective use of funds for hazardous waste disposal to maintain clean environment and a high level of good health. Major emphasis by the KDHE during the past year has been on-site cleanups, with 28 projects now underway by responsible parties. In FY 86, eight sites have been initiated with funding as recommended by the Governor. Technology and approaches to cleanups vary with sites, but immediate removal of the source of hazardous waste is much less expensive than recovery after discharge. In many cases where release has occurred, three types of response are required: ground water recovery and treatment, encapsulation of buried materials and excavation of hazardous waste. The State Superfund program is needed for communities ineligible under the federal system as it is directed primarily towards sites of national significance. Currently only seven sites of the 226 targeted in Kansas are eligible for Federal Funds. The KDHE directs its efforts to sites not ranked for federal funding, requiring the Department to look beyond the federal program to the goals for cleanup and prevention of negligent hazardous waste disposal. The Governor's recommendation for funding is critical to the successful implementation of the program.

Secretary Sabol stated that based on known alternative technology, it will not be necessary to allow any below ground burial at any site. Monitoring by the Department continues during the time gap of application and receipt of federal funds, as the Department is still responsible. (Attachment A).

Background information of the NIES Waste site at Furley, Kansas, was reviewed for the committee by Secretary Sabol. Disposal of a variety of chemical and industrial wastes took place after the opening date in 1977. Receipt of waste at the site was halted by Kansas officials on January 18, 1982. Results of the study conducted indicated the primary source of leakage was the treatment ponds. Remedial activities were initiated and a groundwater monitoring program was used to determine effectiveness. As NIES failed to respond affirmatively to directives for final site cleanup, a draft order was developed to achieve goals set by the Department. There are seven key elements of the draft order and the major element includes stipulated penalties established in advance for violations of deadlines and remedial actions. The EPA has now assumed the lead role with respect to remedial action with the Department continuing to work with that agency. EPA is now responsible for conducting various on-site monitoring activities. (Attachment B).

CONTINUATION SHEET

MINUTES OF THE SENATE COMMITTEE ON ENERGY & NATURAL RESOURCES,
 room 123-S, Statehouse, at 8:00 a.m./~~P.M.~~^{XXX} on APRIL 3, 1985

Morris Kay reviewed for the committee the course of action by EPA for the Furley site with three main goals: prevention of future migration of contamination from the site, reduction of contamination migrated off-site and reduction of contamination in the aquifer zone under the site. (Attachment C).

An on-site coordinator from EPA has been established to monitor compliance with consent orders. He stated EPA has the authority under the Super Fund Law and RCRA to address problems at the Furley Site and monthly meetings are held to keep local people informed of work done. Principles of agreement reached with the company are basically the same as those of the state with the added element of air monitoring. Close following of the principles of the state's regulations is important to aid the company in complying with the draft order. Actions continue to be taken by the company in the clean up. The corrective action plan being implemented can be altered depending upon future needs and the EPA has the cooperation of Waste Management Inc., parent company of NIES, with the plan.

In response to questions from the committee, Mr. Kay stated that reopening of the site for disposal is not under consideration at this time, and involvement at Furley came with implementation of the Super Fund at the site. The presence of EPA allows more immediate response; however, both agencies are needed at the site to carry out separate responsibilities. Presently EPA is in the process of issuing a consent orders under CERCA and RCRA, and has urged the state to join with them in these negotiations as state positions have been incorporated in the EPA consent order.

Senator Gordon inquired where disposal is being made of materials formerly shipped to Furley. Mr. Kay stated that alternative treatment methodologies by generating companies is increasing to alleviate this problem. Chairman Werts suggested Kansas should assume responsibility for hazardous waste disposal within the state rather than shipping to another state. Senator Hayden expressed a concern regarding the possible use of granite wash in western Kansas for disposal and Mr. Kay stated there are no plans for such action and when required directive plans fail to prevent leakage at a site, slurry walls would be erected.

The meeting was adjourned by Chairman Werts.

4-3-85

Guest List

Ed. Reinert	Topeka	League Women Voters of Ks
John W. Mitchell	Lawrence	Ks. — KDHE
Allan S. Abramson	Topeka	KDHE
Joe HARKINS	TOPEKA	KWD
Jim McBride	Topeka	United Way
Chip Wheeler	Topeka	Waste Mgmt, Inc.
Pete McGill	"	" " "
Dennis Murphy	Topeka	KDHE
Charles V. Hamm	Forbes Field - Topeka	KDHE
Barbara J. Sabol		KDHE
Morris Kay	Lawrence Ks	EPA
PAT SENAFER	TOPEKA	DIVISION OF BUDGET
Nancy Ingle	"	"
Gyula F. Kovach	Topeka	KDHE
Rep. Paul Miller	119 #	
Rep. Jo Ann Poltoff	83 #	

Testimony Presented by
Barbara J. Sabol, Secretary Health and Environment
to a Joint Meeting of the
House and Senate Energy and Natural Resources Committees
April 3, 1985

Review of the Hazardous Waste
Cleanup Fund Program Activities
FY 1985

S. ENR 4/3/85

ATTACHMENT A

Last year the legislature considered House Bill 2726, creating a Hazardous Waste Cleanup Fund, and legislation to ban land burial of hazardous waste. The Hazardous Waste Cleanup Fund was acted upon favorably. This year saw the enactment SB 1, the prohibition on land burial. These two bills established the basis for protecting our environmental health from the detrimental impact of unsound hazardous waste disposal practices. Prevention of land disposal of hazardous waste through land disposal prohibition and regulation of alternative technologies has been achieved. Remediation of past problems using the Hazardous Waste Cleanup Fund is now being implemented.

Those uncontrolled hazardous waste sites where disposal has occurred in the past are continuing assaults on the environment which threaten public health, both to present and future generations. We have found in the health field that prevention of disease is the preferable course of action. Prevention is the most effective use of funds to maintain high levels of good health. Environmentally, this is also true. It is cheaper to prevent contamination than to clean it up. Likewise, where disease has struck, quick treatment results in lower cost with greater recovery. Again, expeditious response to contamination problems, both through containment and cleanup, result in lower cost for remediation and mitigate the harmful impacts upon the environment.

I would like to summarize for you KDHE's efforts over the past year to cleanup some of the potential problem sites. In the last session we discussed a list 201 higher and lower priority potential problem sites. We have developed a procedure for evaluating and ranking these sites. Further, investigations at 102 sites were initiated or accomplished. Our major emphasis however, has been on site cleanups. We are making every effort to encourage responsible parties to take appropriate action for cleanups. We currently have under way 28

cleanups by such responsible parties. Where responsible parties are not available or do not have the resources to clean up, then the Department may use the Hazardous Waste Cleanup Fund. We have initiated or accomplished 8 of these in FY 85 and anticipate cleanups at 12 such sites with the \$500,000 recommended by the governor. After a site has had the appropriate actions taken, it is reevaluated to determine if it should be removed from the list. Approximately ten sites are ready for this reassessment in FY 85.

The choice of technology and overall approach to cleanup can vary, based upon site specific environmental conditions and public health considerations. In some cases, emergency actions may have to be taken to immediately contain material currently discharging or to limit access to a site in order to prevent public exposure where direct contact hazards (such as acutely toxic or carcinogenic materials or unstable chemicals) may be present or where an imminent threat exists of discharge from containers of disposed materials which might otherwise be prevented through emergency action.

A more common situation would require an immediate removal. These are situations where materials generally are on the surface, either in drums, lagoons, or tanks and may be cleaned up quickly and thereby prevent offsite migration and subsequent contamination of surface and groundwater. Sites where immediate actions must be taken represent threats to the environment and the public health, however, either location or nature of the material does not require an "emergency" response such as necessitated by unstable materials or extremely toxic materials in a densely populated area. Immediate removal of the source of the hazardous waste is also much less expensive than attempting to recover discharged hazardous wastes that may be currently contained but are subject to release into the environmental pathways if not dealt with quickly.

Where such a release has occurred, more extensive remedial investigations and implementation of carefully planned cleanups, including techniques such as groundwater recovery and treatment, encapsulation of buried materials, or excavation of hazardous waste, may be required. In many cases, a single site might present elements or hazards requiring all three kinds of response. An example is a site containing very hazardous pesticides within or in proximity to a sensitive population (such as a town center where young children may play). The appropriate emergency response action might be to fence the site thereby eliminating access and precluding the possibility of children playing among the hazardous waste. Possibly most of the material might yet be in containers and an immediate removal of this containerized material would be appropriate. After removal of containerized material found on the surface, a remedial investigation into potential buried material, groundwater contamination, and offsite migration, as well as the need to assess public health impacts would be required. If found present, these kinds of problems would necessitate a more extensive amount of time to adequately address.

I'm often asked, why the need for State Superfund program to cleanup hazardous waste problem sites? Doesn't the Federal government currently do just that? The Federal program is primarily directed towards sites of national significance. These sites compete with one another on a national basis for limited available funds. Currently, only seven sites of the over 226 (25 new ones were identified in FY 85) in Kansas are currently eligible for Federal funds and ranked on the national priority list. This does not mean that the other 219 sites are not a hazard to the citizens of this state. The ranking process used by the Federal government takes into account many things including population density, environmental setting, etc. We cannot ignore

the needs of a local Kansas community with a population measured in the hundreds because that site would not rank on a Federal list when compared to the hazard presented by sites in more densely populated states.

Citizens of Kansas should expect a safe environment. Our obligation to provide a safe and healthful environment to all Kansans requires us to look beyond the Federal program. We supplement Federal Superfund by directing our efforts and resources to respond to sites that would not rank nationally and by encouraging our industrial community to voluntarily act in a responsible way. Where we find sites not currently being addressed that would rank nationally, they will be submitted to obtain federal funds.

The Hazardous Waste Cleanup Fund has previously been discussed with the House Ways and Means Committee. I appreciate this opportunity to further discuss the important goals and accomplishments of the program with this joint meeting of the Senate and House Committee on Energy and Environment. Achieving these goals is important to every Kansan in order to protect our health, environment and precious groundwater supplies. The Governor's recommendation for the Hazardous Waste Cleanup Fund for FY 86 is critical to the successful implementation of the program. Your continued support of these activities is vitally needed to meet these goals.

I look forward to providing you with additional information as we continue the implementation of this program to cleanup hazardous waste sites in Kansas.

REVIEW OF NIES HAZARDOUS WASTE SITE
FURLEY, KANSAS

Presented to Senate and House Energy and Natural Resources Committees
April 3, 1985

BACKGROUND INFORMATION:

The NIES hazardous waste disposal facility is located in an agricultural area of Sedgwick County about ten miles northeast of Wichita. The site was opened in 1977 and was operated by the original owners until December 1981. At that time, it was sold to the present owner NIES, a wholly owned subsidiary of Chemical Waste Management, Inc., which is a wholly owned subsidiary of Waste Management, Inc., of Oak Brook, Illinois.

Disposal of a variety of chemical and industrial wastes took place on the original 80 acre site. Liquid wastes were placed in two large evaporation ponds, in four smaller treatment ponds, and prior to implementation of a ban on the practice, in barrel disposal trenches. Solid wastes were landfilled.

On January 18, 1982, receipt of waste at the site was halted by Kansas officials. This action was taken as a result of data which indicated that groundwater contamination was occurring at the site. The site owners immediately commissioned a study to determine the source of contamination and appropriate remedial actions. The results of the study, which was conducted by Woodward-Clyde Consultants, indicated that the primary source of leakage was the treatment ponds. The recommended course of remedial activities was to decommission the treatment and evaporation ponds, install dewatering trenches to intercept contaminated groundwater before it left the site, and install proper caps over the two barrel disposal trench areas. An extensive groundwater monitoring program was to be used to determine the effectiveness of the remedial activities.

The proposed remedial actions were reviewed by KDHE and EPA staff and were approved. The original monitoring well network was installed in early 1982 and has been expanded with the installation of additional wells since that time. The two dewatering trenches were installed in late 1982. The landfill caps were completed in May 1983. Preparations were made during 1983 for decommissioning of the treatment ponds. The actual decommissioning work, which consisted of neutralizing the wastes and transferring the residue to a newly-constructed, on-site, lined disposal cell, was completed in early 1984. The ponds were then back-filled with clean material.

In early 1984, the department sent correspondence to Waste Management officials which restated the department's overall direction for the final site cleanup. As a result of the company's failure to respond affirmatively to the directions given in this correspondence, a series of administrative orders were issued to the company last summer and

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ATTACHMENT B

fall. The company appealed each of these orders but in several cases, has concurrently complied with the elements of the orders. As a result of the appeals, the administrative hearing process is currently in progress.

RECENT DEVELOPMENTS:

In late 1984, members of my staff entered into discussions with company representatives. As a result of these discussions, a proposed draft order was developed to achieve the goals we had set earlier in the year for the containment and cleanup of contamination at the site. Key elements of this draft order included:

1. Installation of extraction wells both on and off site and pumping of these wells to remove contaminated groundwater.
2. A short-term goal of a twenty-five percent reduction of both on and off-site contamination in the first year. A long-term goal was to be established upon completion of a health risk assessment study to be conducted by the site owners.
3. Dewatering of the evaporation ponds by July 1, 1985 followed by prompt decommissioning of the evaporation ponds.
4. Disposal of extracted groundwater initially to the city of Wichita sewer system. Wichita officials have agreed to this plan provided that the water meets the city's pretreatment requirements. Long-term disposal by any environmentally-safe method approved by the department.
5. Contingency plans for installation of a slurry wall around the former active disposal areas if the extraction well program proved ineffective, and for excavation of the remaining on-site wastes if a slurry wall were not effective.
6. Establishment of financial assurance by the site owners to provide funds to allow for completion of the necessary remedial work if the owners would fail to perform.
7. Stipulated penalties established in advance for violations of key deadlines and remedial actions.

A public meeting was held in Wichita on February 4, 1985, to receive comments on this proposed draft order and written comments were accepted through February 18, 1985. However, on February 16, 1985, Mr. Morris Kay wrote to Waste Management and transmitted an EPA draft order which contained many of the same provisions of the state's January 23, draft order. The EPA order was written under Federal CERCLA (Superfund) authorities. By virtue of this action the EPA assumed the lead role with respect to remedial activities at the site.

In order to assure a smooth transition, the department notified Mr. Kay on February 25, of the state's past on-site activities. The department was involved at the site in the following areas:

1. An extensive groundwater monitoring program was conducted in the area of the site by the department from the time groundwater contamination was discovered until February of this year. This monitoring program has consisted of collection of monthly samples from private drinking water wells in a nine square mile area and from Prairie Creek which is located about one-half mile north of NIES. The department also has split samples from monitoring wells with the site owner and conducted analyses on a representative number of these samples in an effort to assure that there is an independent review of groundwater data. Results have indicated that the remedial activities completed through mid-February, have resulted in a general reduction in contaminant levels in the central portion of the site where the treatment ponds were located.
2. On-site air monitoring for several compounds associated with past odor complaints was conducted on a round the clock basis. This monitoring was expanded off-site during the summer of 1984 at the request of a citizen living near the site.
3. An on-site presence was maintained by the department during past remedial activities. Department personnel have been present during such activities to assure that the work was completed according to agreed upon plans.

As lead agent, EPA should be responsible for conducting the various on-site monitoring activities.

The department is continuing and has notified Mr. Kay of intentions to perform off-site sampling of private water wells, Prairie Creek water, as well as conducting air monitoring at private residences near the site. In addition, we continue to cooperate with EPA and will provide Mr. Kay with our comments regarding the various elements of EPA's proposed order to the company. This draft order was released to the public on March 21, 1985, for review and comment through the end of April. A second draft was received on April 1, 1985, which we will review and provide comments.

Presented by: Barbara J. Sabol, Secretary
Kansas Department of Health
and Environment



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

FACT SHEET

NIES Hazardous Waste Disposal Site

Furley, Kansas

Background

The National Industrial Environmental Services (NIES) hazardous waste treatment and disposal facility near Furley, Kansas, operated from February 1977 through January 1982, when it was closed by order of Governor John Carlin. Process units at the site included two evaporation ponds, four treatment ponds, two large landfill areas consisting of many smaller trenches, various storage areas, a treatment building, and a stormwater retention pond to control runoff.

The closure was ordered based on results showing contamination at Spring 6, north of the site near Prairie Creek. Several volatile organics, such as trichloroethylene, trichlorethane and dichloroethylene, were found in the Spring. Following the closure, a detailed hydrogeologic report and corrective action proposal were prepared by NIES.

The hydrogeologic report, along with investigation by KDHE and others, showed the presence of two groundwater levels beneath the site, an upper (A) zone of carbonate solution cavities about 30-40 feet below the surface and a lower (B) zone at the soil/bedrock interface roughly 50-60 feet below the surface.

Based on these reports, a five-point course of action was proposed by NIES with a goal of immediate corrective actions to reduce the contamination.

1. Install drainage trenches in the uppermost groundwater level at the site (known as the A zone) as needed to contain the contamination levels.
2. Properly cap the landfill trenches to prevent precipitation from entering the cells.
3. Decommission the treatment and evaporation ponds and backfill and cap the excavations.
4. Dispose of the pond waters and the drainage trench waters in a proper, permitted manner.
5. Dispose of the treated pond sludges and contaminated soils in a new disposal cell with a synthetic and compacted clay liner.

After these actions were completed, any additional remedial actions shown to be necessary by the required groundwater monitoring program would be initiated.

(more)

S. ELNR 4/3/85
ATTACHMENT C

At present all items have been completed except for the closure of the evaporation ponds. Groundwater monitoring since January 1982 has shown decreases in contaminant levels in several on and offsite wells due to the corrective actions, but also constant values or increases in other wells and sampling points. In particular, increases have been observed in areas away from the remedial items (e.g., the sampling points nearer to Prairie Creek and the A zone areas south of evaporation pond 1). The need for additional remedial items in the A zone, initiation of actions in the B zone, and continuation of groundwater monitoring is apparent.

Remedial Options

Various alternatives are available for remedial action. Containment -- of wastes onsite can be accomplished by hydrologic barriers such as pumping extraction wells or injecting clean water, or by impermeable barriers such as slurry walls or grout curtains. Wastes can also be removed or possibly detoxified onsite. Both a slurry wall and extraction wells have been proposed at one time or another as a possible next step. EPA believes that either, properly designed, would contain the contaminants onsite.

In either alternative, contaminated groundwater will be extracted from the ground. That groundwater must be disposed of properly, and all permissible alternatives must be considered. These options include treatment and discharge via an NPDES permit to Prairie Creek, treatment and discharge through a RCRA permit to the land, treatment and/or discharge via an approved injection well (either on or offsite), or transmission of the groundwater to a treatment facility permitted under either the Clean Water Act or RCRA.

Status of Current Regulatory Actions

As a part of the currently approved cleanup plan, evaporation pond water is currently being transported in tank trucks for disposal in an underground injection well in Oklahoma. As of 9 a.m., 2/20/85, 307,400 gallons of pond water had been removed.

Seven boreholes were made in the original site exploration in 1976. Only six holes have been located and were recently investigated. These boreholes are thought to be possible cross-connections of the A and B zones, thereby allowing transmission of contaminants to the B zone. The boreholes that have been found are scheduled to be properly grouted during February.

An extraction well will also be installed near monitoring well 205 this month in order to explore the feasibility of the extraction well system set forth in the proposed KDHE order.

Groundwater monitoring activities are continuing with sampling being done by both NIES and KDHE.

The public comment period on the proposed KDHE order was scheduled to close on February 18.

(more)

EPA Presence at NIES site

The Environmental Protection Agency assures interested citizens that actions taken by EPA will be to achieve the following goals in the clean up of the NIES site.

1. Prevention of any future migration of contamination from the site.
2. Reduction of contamination off-site.
3. Reduction of contamination in the B zone.

February 20, 1985



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

FACT SHEET

UPDATE OF EPA ACTIVITIES AT THE
HAZARDOUS WASTE SITE
AT FURLEY, KANSAS
March 21, 1985

1. ACCOMPLISHMENTS SINCE FEBRUARY

- Agreement in principle on the terms and schedules of the clean-up.
- The EPA On-Scene Coordinator, Phil Keary (a geologist), will be on-site to observe the groundwater pumping test and to monitor site clean-up.
- EPA has given permission to the companies to commence groundwater pumping test which is expected to begin today.
- Commencement (today) of 40-day public comment period, to close April 30.

2. CLEANUP GOALS

- Prevention of any future releases of contamination from the site.
- Reduction of groundwater contamination off-site by 25 percent in the first year.
- Reduction of groundwater contamination on-site by 25 percent in the first year.
- Establishment of alternate contaminant limits (ACLs) to be finalized by the end of the first year, and applied thereafter to assure that groundwater clean-up meets health protection criteria.
- Reduction of groundwater contamination by 35 percent off-site and 50 percent on-site during the second year if the ACLs are not finalized.

3. UNRESOLVED ISSUES

The companies have not agreed to the following provisions. Efforts to resolve these matters will continue. If agreement cannot be reached, EPA will proceed.

- Stipulated penalties. The companies want agreement that any penalties due under the Order because of violation of the agreement will be reduced by the amount of penalties issued by the Kansas Department of Health and Environment.

- Named parties. The companies will not agree that Chem-Waste, Inc., or Waste Management, Inc., will be parties to the agreement. They have offered to guarantee the performance of NIES, and will provide EPA with a proposal for the guarantee.

- RCRA Order. The companies have asked that a similar Order be issued under the Resource Conservation and Recovery Act, to assure that there will not be inconsistent requirements. This Order will be resolved within the next 30 days.

- Agreement of KDHE and other agencies. The companies have agreed to discuss the terms of this agreement with KDHE, the Kansas Water Resources Board, and other agencies which must approve some provisions, or issue permits. If satisfactory agreements can be worked out, the companies will sign this draft agreement.



NIES

P. O. Box 745
Wichita, Kansas 67201
(316) 744-1286

March 21, 1985

Mr. Morris Kay
Regional Administrator
U.S. Environmental Protection Agency
726 Minnesota Ave.
Kansas City, KS 66101

Dear Mr. Kay:

I have attached to this letter an Order on Consent pursuant to Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act which has been negotiated between Respondent and Region VII of the USEPA. I will sign this Order on Consent, pursuant to the terms of the final paragraph of the Order, in the reliance on the following understandings as to contingencies:

1. Within the next 30 days agreement will be reached between the parties as to stipulated penalties under the order.
2. Within the next 30 days, agreement will be reached between the parties as to an appropriate guarantee of performance from Chemical Waste Management, Inc. and/or Waste Management, Inc. so that only NIES is named as a Respondent.
3. Within 30 days, the parties will agree on the terms of an Order under the Resource Conservation and Recovery Act for the Furley facility which is the equivalent of this CERCLA order, and in that document or another document, EPA shall, without the imposition of any penalty, release Respondent from any claim of violation of RCRA, and provide appropriate assurance that there are no other liabilities pursuant to other statutes administered by EPA arising out of any facts or circumstances presently known to EPA.
4. Respondent will consult with the relevant Kansas state authorities and the Respondent's indemnitors under the District Court ruling in Nunn v. Chemical Waste Management, Inc. and be assured that contemplated actions by those parties do not present unacceptable potential liabilities preventing the signing of this order.

Very truly yours,

F. O. Roberts /md

Fredrick O. Roberts
on behalf of NIES

FR/sd



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

OFFICE OF
THE REGIONAL ADMINISTRATOR

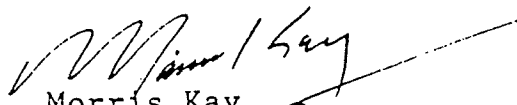
March 29, 1985

Dear Public Participant:

At the Public Meeting in Wichita on March 21, 1985, the Environmental Protection Agency (EPA) issued a Draft Order on Consent which had been agreed to in principle by Chem Waste Management, Inc. Enclosed is a revised copy of the Draft Order for your review. We would welcome your comment on the Order.

The EPA has scheduled another public meeting in Wichita on Monday, April 22, at 7:00 p.m. at the BelAire Fire Station. The EPA staff will be present to receive public comment and discuss the Draft Order. Written comments will be accepted until the close of business April 30, 1985.

Sincerely yours,


Morris Kay
Regional Administrator

BEFORE THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VII
324 EAST 11th STREET
KANSAS CITY, MISSOURI 64106

IN THE MATTER OF:

WASTE MANAGEMENT, INC.
and
CHEMICAL WASTE MANAGEMENT,
INC.
and
NATIONAL INDUSTRIAL
ENVIRONMENTAL SERVICES,
INC.,

Respondents

Proceedings Under Section 106(a)
of the Comprehensive
Environmental Response,
Compensation and Liability
Act of 1980, 42 U.S.C. §9606(a)

DOCKET NO. _____

ORDER ON CONSENT

STATEMENT OF PURPOSE

1. The parties have agreed that the resolution of this matter as set forth herein is in the best interests of the parties and the public to protect human health and the environment and to achieve the following goals:

- A. Prevention of any future migration of groundwater contamination from the site owned by respondents near Furley, Kansas.
- B. Reduction of groundwater contamination off-site by twenty-five (25) percent in the first year of groundwater extraction.
- C. Reduction of groundwater contamination on-site by twenty-five (25) percent in the first year of groundwater extraction.
- D. Establishment of the final levels of reduction of groundwater contaminants necessary for protection of human health and the

environment, and methods and schedules to achieve the reductions, in the format required for development of alternate concentration limits (ACLs), as further described herein, for those contaminants known to be present in the groundwater on-and off-site, and released from the facility.

- E. Reduction of groundwater contamination off-site by thirty-five (35) percent in the second year of groundwater extraction, and on-site by fifty (50) percent in the second year of groundwater extraction, if the ACLs required herein are not finally established.

EPA shall review any future activities required hereunder of Respondents, including but not limited to, submission of reports, data, or undertaking of remedial action, based upon the criteria set forth in this paragraph. The EPA may consider any additional or supplementary information relevant to the protection of human health or the environment.

JURISDICTION

2. This Order on Consent is entered into by Waste Management, Inc. (WMI), Chemical Waste Management, Inc. (CWMI), and National Industrial Environmental Services, Inc. (NIES), hereinafter referred to as Respondents, and the United States Environmental Protection Agency (EPA). The EPA is authorized to enter this Order by virtue of authority vested in the President of the United States by Section 106(a) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), 42

U.S.C.A. Section 9606(a), and delegated to the EPA by Executive Order 12316 dated August 14, 1981, 46 Federal Register 42237, et seq. (1981), and further delegated to the undersigned official of EPA by Delegation No. 14-14, effective March 31, 1983. Notice of this Order has been given to the State of Kansas, through the Kansas Department of Health and Environment.

FINDINGS OF FACT

3. On or about August 13, 1980, NIES submitted a Notification of Hazardous Waste Activity for its facility at Furley, Kansas. This notification advised EPA that NIES was a generator and/or owner/operator of a hazardous waste treatment, storage or disposal facility as defined by the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. 6901 et seq.

4. NIES submitted a Part A Hazardous Waste Permit Application, which was received by EPA on November 20, 1980. This application stated that NIES stored, treated, and disposed of hazardous wastes at the Facility.

5. The facility for which NIES provided notification ("Facility") is situated on 80 acres of land and is located in rural northern Sedgwick County, Kansas. The Facility has the following legal description: the north half of the southwest 1/4 of Section 26, Township 25S, Range 2E, Sedgwick County, Kansas.

6. Respondent NIES has owned and/or operated the Facility from a time prior to November 19, 1980, and is the present owner and operator of the Facility. Ownership of the stock of NIES was

assumed by CWMI on or about December 15, 1980. WMI is the parent corporation of CWMI.

7. The Facility consists of a number of structures, landfills, ponds, and storage facilities, some of which are now closed, as outlined below:

4 treatment ponds	stormwater pond
2 evaporation ponds	waste receptacle
2 landfills	storage tanks
treatment tank	

Attachment 1 is a map of the Facility and is incorporated into this Order.

8. Hazardous wastes were brought to the Facility and disposed of/or placed into or upon the landfills and ponds. Waste management records submitted by Respondent NIES to the Kansas Department of Health and Environment ("KDHE") document that wastes containing but not limited to the following were disposed, treated, or stored at the Facility:

arsenic	1,1-dichloroethane	phenol
benzene	1,2-dichloroethane	1,1,2,2-tetrachloroethane
cadmium	1,1-dichloroethylene	tetrachloroethylene
carbon tetrachloride	1,2-dichloropropane	toluene
chlordan	cis-1,3-dichloropropane	1,1,1-trichloroethane
chlorobenzene	trans-1,2-dichloroethylene	1,1,2-trichloroethane
chloroform	ethylbenzene	trichloroethylene
chromium	methylene chloride	vinyl chloride
DDE	nickel	

9. The Facility is underlain by two groundwater aquifers, an upper A level and lower B level. The A level, if not contaminated with hazardous substances, is of suitable quality for drinking but of limited yield. The A level is used for drinking

water from private wells and other purposes which do not require large volumes of water. The B level, if not contaminated with hazardous substances is of suitable quality for drinking and water is present in larger quantities than the A level. Ground and surface water in the vicinity of the site is used and has the potential for use for domestic, agricultural, or recreational purposes.

10. On October 9, 1981, EPA at the request of KDHE, collected a number of samples from private wells and surface waters near the Facility. On or about November 6, 1981, the results of analyses of those samples were received by EPA, indicating that concentrations of toxic chemicals were present in a spring north of the site. The KDHE then conducted further investigations, including borings, and discovered contaminants between the spring and the Facility, with higher concentrations immediately adjacent to the north boundary of the Facility.

11. Additional information made available to EPA on May 5, 1982; July 15, 1983; November 11, 1983; December 8, 1983; July 31, 1984; August 31, 1984; and on other occasions, indicates that contaminants from the Facility have entered the groundwater aquifers in the vicinity of the Facility, and have been released to groundwater beyond the Facility's property boundaries and to Prairie Creek.

CONCLUSIONS OF LAW

12. Respondents NIES, CWMI and WMI are each a "person" as defined by Section 101(2) of CERCLA, 42 U.S.C. §9601(21).

13. The materials listed in paragraph 6 are each a "hazardous substance" defined by Section 101(14) of CERCLA, 42 U.S.C. §9601(14).

14. The Facility described herein is a "Facility" as defined in Section 101(8) of CERCLA, 42 U.S.C. 9601(9).

15. The actual and potential for spillage, leakage, and escaping of the hazardous substances from the Facility, and the presence of hazardous substances in ground and surface waters at and near the Facility constitute an actual or a threat of "release" as defined by Section 101(22) of CERCLA, 42 U.S.C. §9601(22).

DETERMINATION

16. Based on the foregoing Findings of Fact and Conclusions of Law, and upon a review of pertinent records including public comments submitted under paragraph 32, the Regional Administrator has determined that there may be an imminent and substantial endangerment to the public health, welfare or the environment because of the presence of an actual or threatened release of hazardous substances from the Facility. He has further determined that in order to protect human health and welfare and the environment, it is necessary that the immediate removal actions set forth herein be undertaken. The immediate removal actions required by the terms of this Order are consistent with the National Contingency Plan and will prevent or mitigate immediate and significant risk of harm to human health, welfare, or the environment.

Respondent does not admit the validity of this determination.

ORDER ON CONSENT

17. IT IS HEREBY AGREED BY THE PARTIES:

A. Offsite B Level Extraction Well Pumping Program

- (1) Within 45 days of the effective date of this Order, Respondent shall submit to EPA for approval, the design and technical specifications for construction and operation of at least three B level extraction wells in the vicinity of monitoring wells 254/258, 260 and 273.
- (2) Within 30 days after approval by EPA of the design and technical specifications specified in 17.A.(1), Respondent shall complete construction of the B level wells specified in 17.A.(1).
- (3) Within 30 days of the effective date of this Order, Respondent shall submit to EPA for approval a revision of its Part A application pursuant to the Resource Conservation and Recovery Act to provide for sufficient tankage at the facility to store the water pumped from the wells designated in 17(A)(1) and 17(B)(1); further, Respondent shall submit to KDHE an appropriate application for such tankage, and further, Respondent shall submit to the Kansas Board of Agriculture an application to appropriate the water pumped from the wells designated in 17(A)(1) and 17(B)(1).

- (4) Respondent shall make good faith efforts to secure permission from the appropriate property interests to install, operate and maintain said wells, and inform EPA within fifteen days of any refusal of access.
- (5) Within 7 days after initiating the pumping of the onsite B level wells pursuant to 17.B.(3) or of acquiring legal authority to install, operate and maintain the off-site wells, whichever occurs later, Respondent shall begin continuous pumping of each offsite well specified in 17.A.(1) at the maximum efficient pumping yield and shall continue such pumping until EPA approves a pumping program pursuant to 17.A.(6).
- (6) After completion of at least 10 days of continuous pumping pursuant to sub-paragraph 5, Respondent shall submit to EPA for approval, a pumping program which shall include a study of the effectiveness of the pumping to provide containment, the area of influence, and the drawdown of the wells, and shall recommend an operating regime designed to meet and maintain the goals of this Order for the first year including the installation of additional wells if necessary, or reduction of pumping rates. For the purposes of this submission, the mean concentrations for total volatile organic compounds in monitoring wells 254, 260, and 273 shall be compared to the baseline mean without

regard to the calculation of a running 3-month group mean.

- (7) Respondent shall calculate and report to EPA a running 3-month group mean concentration for total volatile organic compounds in B level monitoring wells 254, 260 and 273 each month within 15 days of receipt of that month's data.
- (8) If at any time during the 12 months following the initial 12-month pumping period, the running 3-month group mean concentration of total volatile organic compounds in B level monitoring wells 254, 260, and 273 has not decreased by at least 25 percent of the baseline mean (from 270 ppb to 202 ppb, see Table C), then within 30 days Respondents shall submit to EPA a reduction plan and schedule, which shall include a program to reduce the group mean total volatile organic compounds concentration by at least 25 percent of the baseline mean as expeditiously as possible and shall define specific additional measures to achieve the required reduction, the technical basis for determining the adequacy of the additional measures and the schedule for completing and reporting on the same. All feasible means of reduction shall be considered, including a slurry wall or excavation of the wastes even if the requirements of 17.G are not triggered.

TABLE C

OFFSITE B - ZONE WELLS

<u>Monitoring Well</u>	<u>Baseline Mean Total Volatile Organic Compounds Concentration (ppb)</u>
254	250
260	160
273	<u>400</u>

Control Group Mean: 270
(Data collected from January 1983 through December 1984.)

- (9) If at any time during the 12 months following the initial 12-month pumping period, the running 3-month group mean of total volatile organic compounds in B level monitoring wells 254, 260 and 273 has decreased by at least 25 percent of the baseline mean, Respondent shall continue the pumping program established pursuant to paragraphs 17.A.(6), 28, and 29.
- (10) If at any time after the second 12-month pumping period, the running 3 month group mean concentration of total volatile organic compounds in B level monitoring wells 254, 260 and 273 has not decreased by at least 35 percent of the baseline mean (to 175 ppb), then Respondent shall submit to EPA for approval a reduction plan and schedule, which shall include a program to reduce the group mean total volatile organic compounds concentrations by at least 35 percent of the baseline mean as expeditiously as possible, and shall define specific additional measures to achieve the required reduction, the technical basis for determining the

adequacy of the additional measures, and the schedule for completing and reporting on the same.

- (11) If at any time after the second 12-month pumping period, the running 3-month group mean concentration of total volatile organic compounds in B level monitoring wells 254, 260 and 273 has decreased by at least 35 percent of the baseline mean, Respondent shall shall continue the pumping program established pursuant to paragraphs 15.A.(10, 26 and 27. All feasible means of reduction shall be considered, including a slurry wall or excavation of the wastes, even if the levels of paragraph 17.G and H are not triggered.

B. Onsite B Level Extraction Well Pumping Program

- (1) Within 45 days of the effective date of this Order, Respondents shall submit to EPA for approval, the design and technical specifications for construction and operation of at least three B level extraction wells along the northern boundary of the Facility.
- (2) Within 30 days of approval by EPA of the design and technical specifications specified in 17.B.(1), Respondent shall complete construction of the B level extraction wells specified in 17.B.(1).
- (3) Within 7 days of completing construction of the last of these wells, or of obtaining the required regulatory

approvals pursuant to 17.A(3), whichever occurs later, Respondent shall begin continuous pumping of each well at the maximum efficient pumping yield, and shall continue such pumping until EPA approves a pumping program pursuant to 17.B.(4).

- (4) After completion of at least 10 days of continuous pumping pursuant to subparagraph 3, Respondent shall submit a pumping program which shall include a study of the effectiveness of the pumping to provide containment, the area of influence, and the drawdown time of the wells, and shall recommend an operating regime designed to meet and maintain the goals of this Order for the first year including the installation of additional wells if necessary, or reduction of pumping rates. For the purposes of this submission, the concentrations of total volatile organic compounds in monitoring wells 203, 204, 205, 206, 231R, 262R, and 307 shall be compared to the first year goal without regard to the calculation of a running 3-month group mean.
- (5) Respondent shall calculate and report to EPA a running 3-month group mean concentration for total volatile organic compounds in B level monitoring wells 203, 204, 205, 206, 231R, 262R, and 307 each month within 15 days of receipt of that month's data.
- (6) If at any time during the 12 months following the ini-

tial 12-month pumping period, the running 3-month group mean concentration of total volatile organic compounds in B level monitoring wells 203, 204, 205, 206, 231R, 262R, and 307 has not decreased by at least 25 percent of the baseline mean (to 1115 ppb; see Table D), then within 30 days Respondent shall submit to EPA a reduction plan and schedule which shall include a program to reduce the group mean total volatile organic compounds concentration by at least 25 percent of the baseline mean as expeditiously as possible and shall define specific additional measures to achieve the required reduction, the technical basis for determining the adequacy of the additional measures, and the schedule for completing and reporting on the same. All feasible means of reduction shall be considered, including a slurry wall or excavation of the wastes even if the requirements of paragraph 17.G and H are not triggered.

TABLE D

ON-SITE B-ZONE WELLS

<u>Monitoring Well</u>	<u>Baseline Mean Total Volatile Organic Compounds Concentration (ppb)</u>
203	1,460
204	460
205	5,340
206	200
231R	450
262R	2,290
307	<u>200</u>
Control Group Mean:	1,486

(Data collected from January 1983 through December 1984)

- (7) If at any time during the 12 months following the initial 12-month pumping period the running 3-month group mean concentration of total volatile organic compounds in B level monitoring wells 203, 204, 205, 206, 231R, 262R, and 307 has decreased by at least 25 percent of the baseline mean, then Respondent shall continue the pumping program established pursuant to paragraphs 17.B.(4), 28 and 29.
- (8) If at any time after the second 12 month pumping period the running 3-month group mean of total volatile organic compounds in B level monitoring wells 203, 204, 205, 206, 231R, 262R, and 307 has not decreased by at least 50 percent of the baseline mean, then Respondent shall submit to EPA for approval a reduction plan and schedule which shall include a program to reduce the group mean total volatile organic compounds concentrations by at least 50 percent of the baseline mean as expeditiously as possible, and shall define specific additional measures to achieve the required reduction, the technical basis for determining the adequacy of the additional measures, and the schedule for completing and reporting on the same. All feasible means of reduction shall be considered, including a slurry wall or excavation of wastes

even if the levels of paragraph 17.G and H have not been triggered.

- (9) If at any time after the second 12-month pumping period, the running 3-month group mean concentration of total volatile organic compounds in B level wells 203, 204, 205, 206, 231R, 262R, and 307 has decreased by at least 50 percent of the baseline mean Respondent shall continue the pumping program established pursuant to paragraph 17.B.(8).

C. A Level Wells

- (1) Within 30 days of the effective date of this Order, Respondent shall submit to EPA a plan of location, design and technical specifications for the extraction wells described in the following paragraph. These wells shall be designed to intercept and withdraw the A level groundwater.
- (2) Within 45 days after approval of the plan set out in the preceding paragraph, Respondent shall complete construction of:
- a. Three extraction wells near the southern landfill area in the vicinity of monitoring wells 222, 225, and 230/232.
 - b. Two extraction wells near the south site boundary immediately south of the southern landfill area near monitoring wells 233 and 234.
 - c. Two wells on the west side of the Facility, near

monitoring wells 210 and 246, and one well on the east side near wells 218 or 219.

- (3) Respondent shall inspect these wells at least once per week and, within 2 days of each such inspection, pump the wells as necessary to reduce water levels to or below an elevation of 1345 feet above mean sea level, except for the two wells near monitoring wells 233 and 234 which shall be pumped to an elevation of 1348 feet above mean sea level.
- (4) Respondent shall inspect existing dewatering wells DW-1 through DW-9 at least once per week and, within 2 days of each such inspection, pump the wells as necessary to reduce water levels to or below an elevation of 1345 feet above mean sea level.
- (5) Beginning twelve months after completing construction of these wells, if the level of water in the wells does not require pumping for a period of three continuous months, Respondent shall decrease the inspection frequency to once every two weeks; thereafter, if the level of water in the wells does not require pumping for a period of six continuous months, Respondent shall inspect the wells once per month.

D. Submittal of Extraction Well Pumping Program Information

Respondents shall maintain records of the level in and volumes of water extracted from each and every extraction

well and submit this information to EPA within 30 days of the close of each calendar month.

E. Alternative Concentration Limits (ACLs)

- (1) Within 30 days of the effective date of this Order, Respondent shall sample wells 205, 249, 254, 273, 284, and 298 for RCRA Appendix VIII substances with the exception of those substances listed in Appendix Y of of this Order.
- (2) Within 75 days of the effective date of this Order, Respondent shall report to EPA the results of the sampling undertaken pursuant to subparagraph 1 above.
- (3) The substances listed in Appendix X to this Order and such additional substances as are identified pursuant to subparagraphs 1 and 2 above shall constitute the universe of substances for which ACLs shall be established.
- (4) Within 150 days of the effective date of this Order, Respondent shall submit to EPA for approval, a priority list of 35 substances selected from the substances identified pursuant to subparagraph 3 above on the basis of the greatest potential for harm to human health or the environment considering the toxicity, persistence, mobility, concentration and quantity of the substances in the groundwater at or downgradient from the facility.
- (5) Within 180 days of the effective date of this Order, or 30 days of the receipt by EPA of the list identified in subparagraph 4 above whichever occurs

first, EPA shall complete review of the priority list submitted pursuant to subparagraph 4 above and provide a final priority list of 35 substances to Respondent. Further, EPA shall provide Respondent copies of all orders or consent decrees which Region VII of EPA has imposed or agreed to in any proceeding involving the cleanup of groundwater.

- (6) Within nine months from the effective date of this Order, Respondent shall submit to EPA for approval ACLs for the substances identified pursuant to subparagraph 5 above; the submitted ACLs shall meet the requirements of 40 C.F.R. Part 264, addressing the factors listed in 40 C.F.R. 264.94(b) and the compliance and monitoring criteria in 40 C.F.R. 264.95, and Respondent shall submit to EPA for approval a plan and schedule, not to exceed one year from the date of EPA approval, for achieving the ACLs for those substances. For the purposes of this submittal, the fifteen day periods set out in paragraphs 29 are extended to 45 days.
- (7) Within 12 months of the effective date of this Order, Respondent shall submit to EPA for approval, ACLs for the remaining substances identified pursuant to subparagraph 3, upon the same terms as the submission made pursuant to subparagraph 6 above.
- (8) On approval by EPA of all ACLs, plans and schedules

pursuant to subparagraphs 6 and 7 above, those ACLs, plans and schedules shall become the requirements for pollutant reduction in the groundwater at or beyond the compliance point, and the provisions of paragraphs 17.A. and 17.B. requiring percentage reduction of pollutants shall terminate.

- (9) Within 15 months of the approval of all ACLs pursuant to subparagraphs 6 and 7 above, Respondent shall submit to EPA for approval a plan which includes a statement of those ACLs which were achieved and, for the remaining substances for which the reduction to the ACL has not been achieved despite best efforts to meet the plan and schedule established hereunder, the plan shall include methods and schedules not to exceed one year to expeditiously achieve the ACLs (such as, but not limited to changes in pumping rates and the placement of additional extraction wells focused on concentrated areas of contamination). Such methods and schedules shall be based on considerations of:
- a. The percentage rate of reduction of substances already achieved;
 - b. The absolute quantity and concentration of substances remaining;
 - c. The feasibility and cost-effectiveness of methods for achieving the remaining ACLs;
 - d. The expedition with which the remaining ACLs will be achieved.

Such plan shall also provide for appropriately maintaining the ACLs for a period of three years after they are attained.

- (10) Not later than fourteen months from the effective date of the plan and schedule established for all ACLs pursuant to subparagraph 9 above, Respondent shall submit a written report to EPA describing whether the ACL has been achieved, and if not, the final recommendation for achieving the ACL and a plan and schedule therefor including consideration of the following activities:
- a. Additional groundwater extraction;
 - b. Flushing of contaminants from the groundwater by injection of fresh water at appropriate locations upgradient, coupled with increased pumping rates at the extraction wells;
 - c. Additional extraction well placement to intercept areas of concentrated contaminants;
 - d. Revision of ACLs by exercise of institutional controls such as long-term lease or purchase of property surrounding the Facility;
 - e. Such other plans as may be appropriate, cost-effective, and feasible to achieve the ACL within the recommended schedule.
- (11) The corrective action program described in this paragraph shall terminate after the ACLs have been attained and maintained for a period of three consecutive years.

- (12) Respondent shall provide EPA with semi-annual reports on the effectiveness of the corrective action program set out in this paragraph; the first such report shall be provided within seven months from the effective date of this Order.

F. Disposal Of Groundwater

- (1) Respondent shall dispose of water extracted from the A and B levels, and leachate from the disposal cell sumps and cut off trenches, as a hazardous waste in accordance with all applicable federal, state and local laws and regulations.
- (2) Respondent shall provide for such testing of the groundwater and leachate prior to disposal as is necessary for compliance with applicable regulations.
- (3) Following expiration of Respondent's present agreement with the City of Wichita for disposal of B level water in the city's sewer system, Respondent shall dispose of such water pursuant to a renewal or extension of that agreement and, in the event of failure to obtain such extension despite appropriate and timely application, shall dispose of such water pursuant to a materially equivalent agreement (including transportation) with another publicly owned treatment works or commercial waste management facility or directly from or on the site pursuant to required permits or approvals from federal and state authorities,

taking into account the safety, feasibility, and cost factors--for each alternative.

- (4) Respondent shall make timely and appropriate application for the disposal authority required pursuant to subparagraph 3 above, demonstrating where feasible that it will meet the environmentally protective requirements necessary to obtain such authority. If such application is made by Respondent, EPA shall expeditiously process applications made to the Agency and shall exercise good faith efforts to assist in the disposal of such water, recognizing that the water extraction is dependent upon disposal of the water pursuant to subparagraph 3 above.

G. Slurry Wall Contingency Plan

- (1) By July 1, 1985, Respondents shall submit to EPA for approval, a contingency plan for a slurry wall intercepting the A and B level groundwater aquifers and surrounding the formerly active portions of the Facility. This plan shall include design plans and specifications for a slurry wall and associated extraction wells, a revised groundwater monitoring program, a method for minimization of offsite migration of contaminants during slurry wall construction, plans for any further appropriate groundwater cleanup actions, and a construction schedule.
- (2) Beginning 12 months after the completion of the on-site B zone wells described in paragraph 15.B(2), Respondent shall calculate the running 3-month mean

concentration of total volatile organic compounds in B level wells 203, 204, 205, 206 and 254 each month within 15 days of receipt of monitoring data for those wells. If any such calculation exceeds three standard deviations above the baseline mean set out in Table E or 2,830 ppb, Respondent shall complete the slurry wall system by the date(s) set out in the approved contingency plan.

- (3) Notwithstanding any other provision of this Order, EPA may order the installation of the slurry wall designed by Respondent pursuant to this paragraph, if EPA determines such construction is necessary to meet the goals of this Order; Respondent reserves the right to contest such order and nothing herein shall be construed as agreement by Respondent to comply with such order; absent such Order, Respondent may install the slurry wall if it determines that is the most appropriate method of meeting the goals of this Order.

TABLE E

SLURRY WALL SYSTEM DECISION LEVEL

<u>Monitoring Well</u>	<u>Baseline Mean Total VOC Concentration (ppb)</u>	<u>Running 3-month Group Mean Decision Level Total VOC Concentration (ppb)</u>
203	1,460	
204	460	
205	5,340	
206	200	
254	250	
Group Mean =	1,542	2,830

(Data collected from January 1983 through December 1984)

H. Disposal Trench Excavation Contingency Plan

- (1) By November 1, 1985, Respondents shall submit to EPA for approval, a disposal trench excavation contingency plan and schedule for removal and proper management of wastes from the North and South disposal trenches. Any required permits shall be identified in the submitted plan. The schedule shall require application for permits upon initiation of the slurry wall contingency plan.
- (2) The disposal trench excavation contingency plan shall be implemented pursuant to the approved schedule therein upon determination and notice by EPA that the slurry wall contingency plan is inadequate to contain contaminants at the Facility.

I. Groundwater Monitoring

- (1) Within 15 days of the effective date of this Order, EPA shall approve the groundwater monitoring plan outlined in Attachment 2.
- (2) Within 30 days of the effective date of this Order, Respondent shall implement the approved groundwater monitoring plan. Respondent shall submit the data from this groundwater monitoring program to EPA within 10 days of the receipt of each set of data.
- (3) This groundwater monitoring shall continue until Respondent submits and EPA approves a modified sampling program consistent with the program established

under paragraph 17.E. Respondent shall submit such modified sampling plan as soon as practicable after the establishment of ACLs pursuant to paragraph 17.E. 6, 7, and 8.

- (4) Within 30 days of the effective date of this Order, Respondent shall redevelop well 308 or replace it with an effective B level monitoring well in accordance with specifications previously approved by KDHE for installation of B level monitoring wells.
- (5) Within 90 days of the effective date of this Order, Respondent shall to EPA for approval, a plan for the installation and sampling of a monitoring well in the B level aquiferr north of Prairie Creek to detect any contamination from the Facility. This well shall be sampled and analyzed for the Clean Water Act priority pollutants and, if initial sampling does not show contamination, it shall be plugged and abandoned not sooner than 30 days after the receipt by EPA of the analytical results.

J. Evaporation Pond Decommissioning

- (1) By July 1, 1985, Respondent shall complete dewatering of the evaporation ponds subject to subparagraph 3 below. Water from the ponds shall be disposed of as a hazardous waste in accordance with all federal, state and local laws and regulations.

- (2) Within 15 days of the effective date of this Order, Respondent shall submit to EPA for approval, plans, specifications and schedules for completion of decommissioning of the evaporation ponds pursuant to Woodward-Clyde Consultants technical specifications 4-1 through 4-6, as revised to reflect current RCRA design guidelines and conditions.
- (3) If Respondent is unable to complete dewatering of the evaporation ponds by July 1, 1985, pursuant to its present contract for deep well injection at the CRI, Inc. hazardous waste disposal facility near Tulsa, Oklahoma, then Respondent shall submit to EPA by June 1, 1985, a report on the nature and degree to which the hazardous wastes in the evaporation ponds may be contributing to on-site or off-site releases of pollutants, and Respondent shall submit to EPA for approval a plan and schedule by which the dewatering of the evaporation ponds shall occur, not to exceed one year, or such shorter time as may be commensurate with the degree of risk or hazard which is presented by the release of hazardous wastes from the evaporation ponds.
- (4) As soon as sufficient water has been removed from Evaporation Pond #2 to allow the transfer of all the water from Pond #1 into Pond #2, Respondent shall make such transfer. Within 15 days of completing such

transfer, Respondent shall begin decommissioning of Pond #1 pursuant to plans, specifications, and schedules approved by EPA pursuant to subparagraph 2 above.

K. Plugging Of Cross-Connections Between The A And B Level Aquifer

- (1) Within 90 days of the effective date of this Order, Respondent shall plug the old oil well located in the northwest corner of the Facility in accordance with the requirements of Kansas law.
- (2) Within 90 days of the effective date of this Order, Respondent shall complete the plugging of those boreholes identified in Attachment 2 ("NIES Facility Approximate Locations Original Bore Holes") which Respondent is able to locate. The borehole in the northwest stormwater retention pond shall be plugged as expeditiously as weather and physical conditions permit. This plugging shall be done in accordance with the requirements of Kansas law.
- (3) If Respondent is unable to locate any of the boreholes identified in Attachment 2, and at any time thereafter becomes aware of the location of such a borehole, or any other cross-connections between the A and B level groundwater on the site, Respondent shall report such observation to EPA within seven days and complete the plugging of such borehole or cross-connection within 30 days of that notice in accordance with the requirements of Kansas law.

L. Northeast Stormwater Pond

Within 45 days from the effective date of this Order, Respondent shall submit to EPA for approval a plan and schedule to decommission the northeast stormwater retention pond.

M. Air Monitoring

- (1) Within 15 days of the effective date of this Order, Respondent shall submit to EPA for approval, sampling and analytical procedures for a program to conduct an ambient air monitoring program to establish the quality of the off-site ambient air by establishing a network consisting of four monitoring stations from which 24-hour samples shall be collected on TENAX or charcoal for 14 consecutive days, and analyzed by GC/MS for volatile hazardous substances, and install and operate a meteorological monitoring station at which wind speed, wind direction, temperature and precipitation shall be recorded. Within 15 days of the approval by EPA of this program, Respondent shall make the sampling network operational.
- (2) Within 30 days of the effective date of this Order, Respondent shall submit to EPA for approval, an air quality monitoring, health, safety and contingency plan describing the monitoring locations, sampling methods, air contaminants to be analyzed, quality assurance procedures (duplicate sampling and blanks)

and data reduction procedure for all aspects of evaporation pond decommissioning activities which may have potential to cause air emissions of hazardous substances. Such plan shall be designed so that in the event that the concentration of any compound exceeds 1/40 of the 8-hour time weighted average (TWA) threshold limit value for that compound as listed in reference ___, appropriate actions will be taken in accordance with the contingency plan.* The plan shall set out corrective actions to be undertaken in the event an action level is exceeded, such as use of covers over areas of releases, use of water blankets over sludge, consideration of wind direction and velocity during removal activities or other effective means of reducing emissions of air pollutants from the site.

- (3) Within 15 days of the approval by EPA of the plan submitted under (2) above, Respondent shall implement the plan, including taking the following actions.

Respondent shall monitor at three locations (one near

* EPA arrived at these action levels by adding a forty-fold margin of safety to the TLV values which it believes is an appropriate protective measure since the TLV values are based on occupational exposure during a 40-hour workweek, while the potential exposures at the Facility may be continual over an entire week, and the population exposed may be more sensitive than an occupational task force. Respondent agrees to these action levels in order to resolve matters in dispute at this site by providing an unquestionable margin of safety as an element in the contingency plan despite its position that these action levels are not based on analyses of health effects at these concentrations and are open to question.

decommissioning activities and two near site boundaries, upwind and downwind), twice per week with 8-hour continuous sampling during daylight hours. Respondent shall move the downwind TENAX/charcoal station as required, to remain positioned downwind of site operations and at a location representative of maximum worker exposure. The sample taken immediately downwind of the activities will be analyzed first; if it does not indicate levels of contaminants of concern, then the other two samples will not be analyzed. Respondent shall report data to EPA on a monthly basis and shall report any concentrations monitored near the site boundary which exceed the applicable action levels within 48 hours of the value being reported by the laboratory to Respondent and actions taken or to be taken by Respondent pursuant to the contingency plan to reduce emissions.

- (4) Respondent shall conduct this monitoring program for 10 days after the cessation of evaporation pond decommissioning activities which may have the potential to cause air emissions of hazardous substances to determine whether there is a continued release of hazardous air emissions from the site. After completion of sludge removal activities, if no emissions are detected during the 10-day post-activity period, the program shall be terminated. If continued emissions are present,

Respondent shall continue monitoring, and shall submit a revised monitoring plan within 15 days to address the situation.

- (5) Respondent shall conduct an on-site monitoring program which shall include use of an organic vapor analyzer (OVA) which shall be operated continuously to evaluate and provide for the site workers' health and safety and to quantify emissions from activities which may cause the release of organic compounds of concern. Respondent shall compare air quality measurements from this station with applicable occupational health criteria to evaluate and alter, where appropriate, worker health and safety protection methods and procedures. All data showing exceedances of the applicable occupational health criteria shall be reported to EPA within 48 hours. Respondent shall operate the OVA near site operations where it is expected to produce the highest release of air contaminants and as an on-site screening instrument to survey unknown, potential points of air contaminant releases.
- (6) Respondent shall determine air contaminants to be monitored and analyzed by considering the results from analysis of volatile organic compounds in E-pond sludge headspace testing and the concentration of these compounds relative to their respective health

related threshold limit values and shall include benzene, toluene, carbon tetrachloride, 1,1-dichlorethylene and chloroform.

N. Disposal Trench Maintenance

Within 90 days of the effective date of this Order, Respondent shall submit to EPA for approval, a plan and schedule for maintaining the effectiveness of the existing caps over the old disposal trenches as well as any caps installed or to be installed on any currently or previously active areas of the Facility.

SITE ACCESS

18. Respondent will provide access to the Facility to representatives of EPA, including its contractors, at any reasonable time.

19. EPA shall appoint as On-Scene Coordinator, William J. Keffer, Chief, Emergency Planning and Response Branch, or his designee. The EPA OSC shall have authority to inspect the Facility and the actions taken by Respondent pursuant to this Order at all reasonable times, and, if Respondent is not complying with the terms and conditions of this order, to direct Respondent to comply with the terms and conditions of the Order and/or cease and desist from any action which is in violation of the terms and conditions of this Order. If EPA undertakes and implements If EPA undertakes and implements the appropriate actions as specified in this Order, such activity will not relieve the Respondents of responsibility for the cost incurred by the Government in performing such action or actions.

RETENTION AND AVAILABILITY OF INFORMATION

Sampling and Analysis

20. All sampling and analyses shall be done pursuant to EPA protocols. Samples taken by Respondent shall be handled according to the chain-of-custody procedures established by the EPA National Enforcement Investigation Center. Before disposal of any samples by Respondent, the EPA shall be given thirty (30) days notice and opportunity to take possession of such samples.

21. Upon request by EPA, Respondent shall provide split samples to EPA.

22. Respondent shall preserve all records relating to response at the Facility until authorized by EPA to do otherwise. Those records include sampling, analyses, and chain-of-custody records, manifests, trucking logs, receipts, reports, records of destination of the hazardous substances, correspondence and other documents produced in response to this Order.

23. Upon request by EPA, Respondent shall promptly make available all records and information relating to the response at the Facility.

24. All information, records or other documents produced to EPA by Respondent shall be available to the public, unless identified by Respondent as Confidential Business Information in conformance with Title 40 Code of Federal Regulations Part 2. Documents or information so identified shall be handled in accordance with those regulations. All documents or information requested or required to be submitted to EPA pursuant to this Order shall be delivered to:

Robert L. Morby, Chief
Superfund Branch
U.S. Environmental Protection Agency
324 East 11th Street
Kansas City, Missouri 64106

Respondent shall also provide the EPA OSC with any and all information or records requested.

RESERVATION OF RIGHTS

25. The EPA retains the right to determine whether further response or remedial actions are required at the Facility, and to require such further actions, pursuant to its authority under Section 106 of CERCLA, 42 U.S.C. §9606, or any other relevant provisions of law. Nothing in this Order shall be construed to limit such authority.

26. Nothing contained in this Order shall be construed to prevent either party from seeking legal or equitable relief to enforce the terms of this Order or from taking other actions it deems appropriate or necessary to protect the public health or welfare or the environment.

PENALTIES FOR NON-COMPLIANCE

27. Respondents shall pay stipulated penalties of \$5000 for each day in which any substantial violation of the terms of this Order occurs or continues.

EPA REVIEW

28. Following EPA's receipt of any submittal or plan, or any refinement or revision thereof, required to be submitted by

Respondents to EPA pursuant to this Order on Consent, EPA shall review such plan and notify Respondent in writing within fifteen (15) days of EPA's receipt of such submittal, plan, refinement or revision thereof, of its approval or disapproval or modification of the submittal, plan, or any part or further refinement or revision thereof. In the event of any disapproval or modification, EPA shall specify in detail both the deficiencies of the plan and the reason therefor. Any submittal, plan, or any part or further refinement or revision thereof, which is approved by EPA and performance of which is not contingent upon determining or proceeding with a disapproved or modified part of the submittal or plan shall, on the date of such approval, become final for purposes of this Order.

RESOLUTION OF DISPUTES

29. As to any submittal, plan or any part or further refinement or revision thereof, a notice of disapproval or modification of which is given Respondent by EPA as provided in paragraph 28, Respondent shall, within fifteen (15) days of such notice either:

(a) Modify and submit to EPA the submittal, plan or portion thereof as revised to eliminate the deficiencies specified by EPA, in which case the disputed submittal, plan or part or further refinement or revision thereof shall become final for purposes of this Order upon written notification of EPA's approval; or

(b) Confer with EPA in an attempt to achieve agreement on the disputed submittal, plan or any part or further refinement

or revision thereof. If agreement can be achieved by such conference, it will be memorialized in a joint memorandum between the parties and the disputed submittal, plan, or any part or further refinement or revision thereof, shall become final for purposes of this Order on the effective date of such memorandum.

c. If agreement concerning the disputed submittal, plan, or any part or further refinement or revision thereof, cannot be achieved by procedures outlined in their subparagraph (a) or (b), EPA shall advise Respondent, in writing, within thirty (30) days of the original notice of disapproval or modification, to take such actions as are appropriate to the accomplishment of the goals of this Order. The parties agree that any such determination shall be considered final agency action and ripe for judicial review.

d. None of the foregoing provisions shall prohibit either party from pursuing appropriate judicial or other remedies as provided by law on the disputed portions of any submittal or plan or from seeking such further and additional relief as may be necessary to protect human health or the environment. This Order is defined final order for enforcement purposes under Section 106(b) of CERCLA, 42 U.S.C. §9606(b).

e. The time periods of this paragraph may be extended by the written agreement of the parties.

FORCE MAJEURE

30. If Respondent is rendered unable, wholly or in part, by force majeure to meet the terms and conditions of this Order, the

obligation of Respondent affected by such force majeure shall be suspended during, but no longer than, the continuance of the force majeure and dates requiring future action which are affected by the force majeure shall be extended by the period of the force majeure. The term "force majeure" means inability to obtain materials or otherwise perform due to an act of God, act of public enemy, war, blockade, public riot, lightning, fire, storm, flood, explosion, labor disputes, natural occurrences not reasonably within the control of Respondent, and, in cases where appropriate and timely application has been made, inability to obtain necessary permits, approvals, permissions, or other authority. Respondent shall submit to EPA prompt written notices with reasonable particulars of such events as it believes constitutes force majeure pursuant to this paragraph.

PLAN IMPLEMENTATION AND REPORTING

31. A. Within sixty (60) days of completion of all work specified in this Order, Respondent shall submit to EPA a full and accurate report regarding all activities.

B. Respondents shall report and submit all findings, analytical results, and monitoring to EPA on a regular basis until the terms of this Order are satisfied.

PUBLIC COMMENT/EFFECTIVE DATE

32. Within ten (10) days of the agreement in principle on this Order, EPA shall announce the availability of this Order to the public for review and comment. The EPA shall accept

comments from the public for a period of thirty (30) days after such announcement. If sufficient interest warrants, as determined by EPA, a public meeting will be held. At the end of the comment period, EPA shall review all such comments and shall either:

a. determine that the Order should be made effective in its present form, in which case Respondent shall be so notified in writing. The Order on Consent shall become effective on the date of receipt of such notification; or

b. determine that modification of the Order is necessary, in which case the Respondent will be informed as to the nature of all required changes. If the Respondent agrees to the modification, the Order shall be so modified and shall become effective upon signature of both parties.

IT IS SO ORDERED.

Morris Kay
Regional Administrator
U.S. Environmental Protection Agency
Region VII

Consented to on behalf of Respondent:
