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MEETING MINUTES GROUNDWATER MANAGEMENT FOR OU 10 NAS PENSACOLA FL
06/25/1996
HRP SPECTRUM INC

HRP/Spectrum

MEETING MINUTES

SUBJECT: Groundwater Management for OU-10

DATE: 25 June 1996

LOCATION: PWC Center Building 3887, NAS-PENSACOLA

ATTENDEES:

Maxie Keisler -	SouthDiv	803/820-7322
Bill Hill -	SouthDiv	803/820-7324
Mike Maughon -	SouthDiv	803/820-7422
Bill Gates -	SouthDiv	803/820-7360
John Mitchell -	FDEP	904/488-3935
Bill Kellenberger -	FDEP	904/444-8360
Ed Pike -	FDEP	904/444-8360
Tom Kelley -	PWC	904/452-2170
Frank Stuart -	PWC	904/452-2479
Chad Berthelson -	PWC	904/452-4728
Brian Caldwell -	Ensafe	904/479-4595
John Jones -	NASP/ESA	904/452-3900
Tad Goetcheus -	HRP/Spectrum	864/298-0231

AGENDA & MINUTES

1. BRIEF INTRODUCTION AND SITE DESCRIPTION (Maxie Keisler)
 - A. Groundwater Management Past & Present (Maxie Keisler & Michael Maughon)

Handouts: tabular summary of analytical results for monitoring well GM-66 (Intermediate Zone) and map summaries of wells (Intermediate Zone) and their analytical results (i.e. VOC's, metals, BNA's, semi-volatile, aliphatics, chlorinated aromatics).

- A total of 49 monitoring wells and 7 recovery wells exist on-site.
- Pumping and treatment of groundwater has been conducted from 7 recovery wells since 1991 in the intermediate zone (36' - 48') where the primary source of contamination is identified.
- Flow rates of groundwater have been 164 ft/year (shallow zone), 18 ft/year (intermediate zone), and 5.25 ft/year (deep zone).

- Operations & maintenance has had some ups and downs mostly due to the Hurricane Opal. The air stripper is now on-line and is working well as evidenced by non-detect levels of contamination in the last sampling event.
- Data collected to date by RUST has given good background to the cones of depression. However, after the first year, there hasn't been a significant decrease in contaminant concentrations. The contamination at the present time is in a "holding pattern".
- The primary concern at OU-10 continues to be the movement of contamination east of GM-66.

B Future RCRA Contractor - (Tad Goetcheus)

HRP/Spectrum, Inc. located at 5 Century Drive, Suite 230, Greenville, South Carolina is the new RCRA contractor for NAS-Pensacola site. Point of contact will be Tad Goetcheus, Branch Manager at (864) 298-0231 and fax (864) 242-6243.

2. IDENTIFY BOUNDARIES BETWEEN CERCLA & RCRA FOR OU-10 (Bill Hitt & Bill Gates)

- A CERCLA - contamination associated with wastewater treatment plant
- B. RCRA - contamination associated with lagoons. Site is presently under post-closure. Until closed clean, the site will continue to operate under RCRA for post-closure.

A definite boundary cannot be identified as contamination plumes overlap

3. OBJECTIVES - FUTURE GROUNDWATER MANAGEMENT

A. Ensafe Data (Brian Caldwell)

- The analytical data from Ensafe studies is similar in trends when compared to RUST data.
- Iron and sulfate are seriously reducing and the screens are fouled almost overnight. To prevent excessive buildup, the wells are periodically slugged with Clorox.

- The specific capacity of the on-site wells is very poor.
- If O&M is continued on-site, the frequency and O&M procedures must be intense.
- Effects from large acid spill and thus low pH still greatly affecting GM-66.
- For a period of one (1) year, the pump & treat system was not operating; thus, this would provide good data to look at natural attenuation.

B Historical Data (RUST) - (Maxie Keisler & Michael Maughon)

- Pump and treat is good for containment of contaminant plume, but not for the total treatment of the problem.

SouthDiv would like to re-evaluate the current treatment system to either modify, develop a new treatment system, or look at natural attenuation. Regardless of what method is chosen, all data must be reviewed.

- The evaluation is proposed to be conducted in three (3) phases:

- Phase 1.* Review data and determine which monitoring wells are yielding productive data and which parameters are good indicators of trends.
- Phase 2.* Using data from Phase 1, prepare a modified monitoring plan and install new wells if necessary
- Phase 3.* Operate groundwater recovery system for a period of 6 months and then shut off for six months to track the natural degradation of contamination.

- Mike Maughon (SouthDiv) passed out three (3) case studies he would like to investigate.
 1. Overview of Anaerobic Transformation of Chlorinated Solvents
 2. Groundwater Chemistry Data Needed to Assess the Natural Attenuation of Chlorinated Solvents in Groundwater Systems

3. Identifying Redox Conditions that favor the Natural Attenuation of Chlorinated Ethenes in Contaminated Groundwater Systems.

- OPTIONS to consider include (1) source removal at GM-66, then review natural attenuation, (2) placing a sealed teflon bailer into the well and feeding hydrogen gas into bailer and releasing gas, (3) not air sparging due to effects of high iron concentrations.

4. COURSE OF ACTION TO ACHIEVE OBJECTIVES

A. Monitoring & Recovery Expansion

- Looking to moving the time frame of on-site monitoring activities by decreasing the number of wells, frequency of sampling, and number of parameters analyzed for.
- Ceasing the pump and treat system to reduce the high expense of operations and maintenance, thus using the funds to more effectively treat the problem.
- Possible installation of groundwater monitoring wells east of GM-66 to monitor the groundwater directly upgradient of the bay. As long as contamination has not reached these wells, then present conditions of monitoring O&M would be adequate.
- Something greater than originally anticipated is happening in the area of GM-77 and this needs to be addressed within draft post-closure permit.

B. Risk-based Reduction of Monitoring and Recovery

- At the present time, the project has run its route with groundwater pump and treat.
- The future will bring about the review of RBCA.
- Look at the data and propose a monitoring/recovery/treatment plan to indicate your level of closure. Levels do not necessarily have to be non-detectable, just provide enough support data to show your methodology.

5. CONDITIONS OF FUTURE PERMIT

- At the present time, PWC owes \$20,000 to cover the permit fees for the next five years.
- Recommendations were made to write up proposed changes to the monitoring plan (i.e., reduced parameters, additional wells, etc.) and/or methodology to reduce on-site contamination associated with OU-10. The plan and its conditions would then be implemented into the "draft" permit. It was also noted that the plan and conditions can be written into the "draft" permit in a phased approach.
- SouthDiv to prepare a draft plan of action by September 3, 1996, which will eventually be placed into the "draft" permit. Copies of the course of action will be submitted to Tom Kelley, Bill Kellenberger, Ed Pike, and John Mitchell. The draft plan will then be discussed at the group meeting on September 10, 1996 to be conducted at PWC -Pensacola.
- Final course of action should be agreed upon by November 1, 1996 to be written into the draft permit.