# California Regional Water Quality Control Board
## San Francisco Bay Region

Linda S. Adams
Secretary for
Environmental
Protection

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Arnold Schwarzenegger
*Governor*


Date: November 30, 2007
File No: 01S0149 (CFC)

Ran Rob Tool & Die
Attn: Robert Heath
2613 Saklan Indian Drive #4, Entry #2
Walnut Creek, CA 94595

SUBJECT: Requirement for Groundwater Investigation Report, Ran Rob Tool & Die, 631 85th Avenue, Oakland, Alameda County

Dear Mr. Heath:

This letter requires that you submit a groundwater investigation report to address concerns regarding the increasing concentrations of vinyl chloride in groundwater following remedial activities that ceased at the site in 2003. As explained below, this information will help Water Board staff to determine whether additional investigation and/or remediation are warranted at the site.

**Background**

The former Ran Rob Tool & Die facility is located at the intersection of 85th Avenue and Baldwin Street, Oakland, Alameda County. Chlorinated volatile organic compounds (VOCs), including 1,1,1-trichloroethane (TCA) and trichloroethene (TCE) were used in the manufacture of tools, dies and parts for computer circuitry from the 1960s until 1988, when Ran Rob ceased operations at the site. Mr. Robert Heath was the Chief Executive Officer of Ran Rob, Incorporated.

In 1979, California Department of Health Services, Hazardous Materials Management Section responded to reports of illegal dumping of chemicals at the facility. DHS analyzed soil samples and on November 25, 1981, issued a Notice of Violation (NOV) to Ran Rob, Incorporated for evidence of spillage or discharge of hazardous materials to land, among other violations. On January 14, 1983, a DHS inspection of the facility confirmed that contaminated soil was excavated and removed from the site in accordance with requirements of the NOV. On November 22, 1994, Alameda County Health Care Services issued a letter stating that no further soil investigation or cleanup was required. It stated that groundwater investigation should continue, and referred further groundwater evaluation to the Water Board. In September 1998, regulatory oversight of the property was formally transferred to the Water Board.

Remediation at the Ran Rob site included groundwater extraction and treatment from extraction well EW-1 between June 1992 and September 1993. From June to October 2002, groundwater was extracted from well EW-2 and treated through granular activated carbon (GAC) vessels,

then discharged into a holding tank. The treated groundwater was tested, then discharged to the sanitary sewer under a permit from East Bay Municipal Utilities District. In March, June, and September 2003, cheese whey was injected into wells EW-2 and MW-2 to enhance bioremediation.

Subsequent groundwater sampling was performed in October 2004 and November 2006. Although concentrations of 1,1,1-TCA and TCE have been significantly reduced, post-injection concentrations of vinyl chloride, and to a lesser extent, chloroethane, have risen to levels of concern, especially in well EW-2. In addition, cis-1,2-dichloroethene (DCE) has rebounded to pre-injection concentrations at well EW-2. Elevated concentrations of other chlorinated VOCs also remain in groundwater.

On March 24, 2005, the Water Board issued a no further active remediation letter to Mr. Heath. However, subsequent sampling results, in addition to new information regarding site history and site conditions, do not support the determination made by the Water Board in 2005. A complete background and timeline are attached.

**Report Requirement**

You are required to submit by February 15, 2008, a groundwater investigation report that addresses the following:

- Identify preferential pathways that may influence the migration of contaminants in groundwater, including, but not limited to, the storm drain/former swale and sewer lateral on the site.
- Assess the potential for groundwater contamination in the vicinity of alleged spill area(s) and in the former drum storage area, including potential contaminant outflow from the site in groundwater and soil gas through the storm drain and sewer lateral or associated with their backfill.
- Conduct at least one round of groundwater sampling at site wells for VOCs as soon as possible to assess the rising trend in certain VOCs and their potential for vapor intrusion concern. Include a proposed self-monitoring plan to address the need for future groundwater monitoring events.
- Assess the vertical extent of groundwater contamination immediately downgradient (northwest) of the area of maximum contamination as estimated in the most recent annual report for groundwater monitoring.

The groundwater investigation report should include a comprehensive map/air photo survey, detailing the locations of historic activities involving the use, storage, and disposal of hazardous materials on the site, and the location of underground utilities or other potential preferential pathways, to the extent that this information is known or reasonable available. It should also include the timeframe of business and property ownership, including any other potentially responsible parties, and business operations. References to documents made available to the Water Board will be acceptable to fulfill the requirement of this survey.

This requirement for a report is made pursuant to Water Code Section 13267, which allows the Water Board to require technical or monitoring program reports from any person who has discharged, discharges, proposes to discharge, or is suspected of discharging waste that could affect water quality. The attachment provides additional information about Section 13267 requirements. Any extension in the above deadline must be confirmed in writing by Water Board staff.

If you have any questions, please contact Cleet Carlton of my staff at (510) 622-2374 [e-mail ccarlton@waterboards.ca.gov].

Sincerely,

Digitally signed by Stephen Hill
Date: 2007.11.30 14:46:57 -08'00'

Bruce H. Wolfe
Executive Officer

Attachments: Water Code Section 13267 Fact Sheet
Rob Tool & Die Background and Timeline

cc w/attachments:

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## Fact Sheet – Requirements For Submitting Technical Reports Under Section 13267 of the California Water Code

**What does it mean when the regional water board requires a technical report?**
Section 13267[1] of the California Water Code provides that "...the regional board may require that any person who has discharged, discharges, or who is suspected of having discharged or discharging, or who proposes to discharge waste...that could affect the quality of waters...shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires."

**This requirement for a technical report seems to mean that I am guilty of something, or at least responsible for cleaning something up. What if that is not so?**
The requirement for a technical report is a tool the regional water board uses to investigate water quality issues or problems. The information provided can be used by the regional water board to clarify whether a given party has responsibility.

**Are there limits to what the regional water board can ask for?**
Yes. The information required must relate to an actual or suspected or proposed discharge of waste (including discharges of waste where the initial discharge occurred many years ago), and the burden of compliance must bear a reasonable relationship to the need for the report and the benefits obtained. The regional water board is required to explain the reasons for its request.

**What if I can provide the information, but not by the date specified?**
A time extension may be given for good cause. Your request should be promptly submitted in writing, giving reasons.

**Are there penalties if I don't comply?**
Depending on the situation, the regional water board can impose a fine of up to $5,000 per day, and a court can impose fines of up to $25,000 per day as well as criminal penalties. A person who submits false information or fails to comply with a requirement to submit a technical report may be found guilty of a misdemeanor. For some reports, submission of false information may be a felony.

**Do I have to use a consultant or attorney to comply?**
There is no legal requirement for this, but as a practical matter, in most cases the specialized nature of the information required makes use of a consultant and/or attorney advisable.

**What if I disagree with the 13267 requirements and the regional water board staff will not change the requirement and/or date to comply?**
You may ask that the regional water board reconsider the requirement, and/or submit a petition to the State Water Resources Control Board. See California Water Code sections 13320 and 13321 for details. A request for reconsideration to the regional water board does not affect the 30-day deadline within which to file a petition to the State Water Resources Control Board

**If I have more questions, whom do I ask?**
Requirements for technical reports indicate the name, telephone number, and email address of the regional water board staff contact.

*Revised August 2005*

[1] All code sections referenced herein can be found by going to www.leginfo.ca.gov.

## Ran Rob Tool & Die Background and Timeline
## Case No. 01S0149, November 2007

The former Ran Rob Tool & Die facility is located at the intersection of 85th Avenue and Baldwin Street, Oakland, Alameda County. Chlorinated solvents, including 1,1,1-trichloroethane (TCA) and trichloroethene (TCE) were used in the manufacture of tools, dies and parts for computer circuitry from the 1960s until 1988, when Ran Rob ceased operations at the site. The property is currently owned by Jim Devenport, Baldwin Landmark Associates LLC, and used for light industrial purposes.

In 1979, California Department of Health Services (DHS), Hazardous Materials Management Section responded to reports of illegal dumping of chemicals, including metals and solvents, at the facility. In 1979 and 1981, DHS analyzed shallow soil samples for pH, cyanide, and metals. Samples were collected from areas of alleged dumping, including where fresh and spent chlorinated solvents were stored in above-ground storage tanks (ASTs), other waste oil tanks on the site, and around and adjacent to the drum storage area, where dumping allegedly occurred near a surface drain. Elevated concentrations of metals were detected, and on November 25, 1981, DHS issued a Notice of Violation (NOV) to Ran Rob Incorporated for evidence of spillage or discharge of hazardous materials to land, among other violations. Additional subsurface soil samples were collected by DHS in 1982, and 1,1,1-TCA and TCE were found in one sample. On January 14, 1983, a DHS inspection of the facility confirmed that contaminated soil had been excavated and removed from the site in accordance with requirements of the NOV.

In 1987, Alameda County Health Care Services (ACHCS) conducted soil sampling at the facility and found hazardous concentrations of lead (sample location not indicated). In a letter to Mrs. Pat Stone, Ran Rob, Inc.., on January 5, 1988, ACHCS required a plan of correction. There is no documentation of any follow-up action on this letter.

On September 16, 1988, Beta Associates, Inc. performed a Phase 1 investigation as part of a property transfer. Sampling indicated widespread chlorinated solvent contamination in soil and groundwater, with a maximum concentration of 230,000 µg/L of 1,1,1-TCA in well MW-2 (screened from 6 to 16 feet below grade). The report recommended further investigation to determine the vertical and lateral extent of contamination.

In 1992, Wahler Associates installed EW-1, and aquifer testing suggested that a 1 gpm extraction rate would influence an area sufficient for clean-up. From June 1992 to September 1993, Ran Rob extracted groundwater from well EW-1 at an average of 0.75 gpm, and treated the groundwater with a carbon unit. The maximum pre- and post-extraction concentrations of 1,1,1-TCA in well EW-1 were 180,000 and 62,000 µg/L, respectively. The maximum pre- and post-extraction concentrations of 1,1,1-TCA in well MW-2, 8 feet away from well EW-1, were 230,000 and 83,000 µg/L, respectively. However, during this period the decline in concentrations leveled off. Therefore, ACHCS approved a period of groundwater sampling with the extraction system shut down to study contaminant trends.

From December 1993 to March 1994, monthly groundwater monitoring was conducted at wells EW-1 and MW-3.

Beginning in August 1994, 3 rounds of quarterly monitoring were conducted to study seasonal trends. This was followed by semi-annual monitoring in 1995 and 1996, and annual monitoring in 1997 and 1998.

On November 22, 1994, ACHCS issued a letter stating that no further soil investigation or cleanup is required. It stated that groundwater investigation should continue, and referred further groundwater evaluation to the Water Board.

In June 1995, International Geologic (IG) submitted a groundwater monitoring plan to the Water Board recommending semi-annual groundwater sampling, with quarterly water level measurements, and semi-annual reporting.

In August 1996, IG submitted a groundwater monitoring plan to the Water Board recommending reduction of sampling from semi-annually to annually, with continued semi-annual water level measurements, and annual reporting.

In March 1997, McLaren-Hart/Chemrisk submitted a *Health Risk Assessment for Vapor Transport.* The risk assessment concluded that VOCs at the site did not pose an indoor air risk to workers in a commercial scenario. A revised risk assessment was submitted in June 1997. ACHCS reviewed the risk assessment, and in a letter on October 15, 1997, concluded that the site did not pose a threat to human health under the present commercial scenario. However, ACHCS also required a risk management plan to address, at a minimum, the extent of contamination and methods to mitigate any potential impacts by residual contamination, strategy to address any risk to workers during earth moving activities, precautions to avoid creating vertical or lateral conduits between shallow and deeper aquifers, and re-evaluation if the site use changes. It should be noted that only the vapor intrusion concern was addressed in this risk assessment, and this report predated the post-remediation generation of vinyl chloride.

On December 9, 1997, the Water Board issued a letter to Mr. Heath stating that site closure was not an option, and the possible work options included active remediation, applying for a containment zone designation, or continued monitoring.

In July 1998, IG submitted a work plan to conduct soil and grab groundwater sampling prior to excavation work. On August 7, 1998, the Water Board approved the work plan with the conditions that soil samples be collected just above the soil/water interface, and that soil samples should be analyzed for chlorinated hydrocarbons. In August 1998, soil and grab groundwater sampling identified an area of particularly high VOC concentrations (490,000 µg/L of TCE) at GP-5, about 50 feet south of EW-1. One sample was obtained from a deeper groundwater zone (LF-1A). The initial concentration of 1,1,1-TCA in this well was 710 µg/L, but has since been non-detect.

On August 27, 1998, regulatory oversight of the property was formally transferred to the Water Board by Resolution No. 98-09 of the California Environmental Protection Agency, Site Designation Committee.

In August 1999, IG requested the abandonment of MW-1 and LF-2. The Water Board approved the abandonment of wells LF-2, but not MW-1, and approved the abandonment of MW-4 instead.

In September 1999, IG submitted a work plan to conduct a pilot study using hydrogen reducing compound (HRC) to test the feasibility of further reducing the remaining contamination in groundwater. It consisted of injecting HRC into 5 points around MW-2 and testing groundwater for a 6-month period. The Water Board approved the work plan on September 16, 1999. The pilot test was conducted between November 1999 and June 2000.

In September 2000, IG submitted a Hydrogen Release Compound (HRC) Pilot Study report. The study found that conditions necessary to enhance biodegradation are present at the site, but the likely presence of dense non-aqueous phase liquid (DNAPL) in a suspected upgradient source zone (GP-5, EW-2) may be supplying TCA to the test area. Recommendations included continued annual groundwater monitoring. However, IG recommended future remediation be deferral until future site redevelopment.

In October 2001, extraction well EW-2 was installed and groundwater extraction from this well began in June 2002. Between June 21 and August 8, 2002, 3,870 gallons of groundwater had been extracted and treated onsite by granular activated carbon (GAC) before discharging to the sanitary sewer. Between August 12 and September 3, 2002, approximately 4,000 gallons had been extracted and treated onsite. The September 2002, status report by IG recommended at least one more 4,000-gallon extraction/treatment cycle, and that after VOC concentrations at well EW-2 have been reduced, to consider site-wide in-situ remediation (enhanced bio-remediation or chemical oxidation). From June to October, 2002, approximately 12,000 gallons of TCE-impacted groundwater was extracted and treated from well EW-2. The pre- and post-extraction concentrations of 1,1,1-TCA in well EW-2 were 21,000 and 1,200 µg/L, respectively. The pre- and post-extraction concentrations of TCE in well EW-2 were 210,000 and 830 µg/L, respectively. The pre- and post-extraction concentrations of cis-1,2-DCE in well EW-2 were 85,000 and 19,000 µg/L, respectively.

In February 2003, IG submitted a work plan to implement in-situ reductive dechlorination by injecting a 10% cheese whey solution into wells MW-2 and EW-2. The plan assumed a radius of influence of 15 feet and an aquifer thickness of 10 feet to generate an initial injection volume of about 150 gallons per injection point.

In March, June, and September, 2003, cheese whey was injected into wells EW-2 and MW-2. In June 2004, IG submitted a report of the remediation and monitoring results. The report noted that in September 2003, approximately 450 gallons of 25% whey/water was injected into EW-2 and MW-2. An additional 100 pounds of dry whey was added to the 900 gallon total to provide carbon in a

time-release fashion. Reductions of total VOC concentrations from before to after the injections ranged from approximately 40% to over 80% at wells EW-1, EW-2, and MW-2. The report recommended waiting until the after the following round of sampling before evaluating the need for additional injections.

On March 24, 2005, the Water Board issued a no further active remediation letter to Mr. Heath. The Water Board concluded that vinyl chloride concentrations were relatively stable and remaining contamination should be expected to completely degrade. The Water Board concluded that no further active remediation was necessary, and to continue biennial groundwater monitoring.

Groundwater sampling was performed in October 2004 and November 2006. Post-injection concentrations of vinyl chloride, and to a lesser extent, chloroethane, have risen to concentrations of concern, especially in well EW-2. In addition, cis-1,2-dichloroethene has also rebounded to pre-injection concentrations at well EW-2.

On March 27, 2007, Water Board staff met with Mr. Heath and his consultant, Steve Bittman (IG) at the site. During that visit, Mr. Heath mentioned that a 4-foot diameter storm drain runs through the site. He showed it to be approximately 200 feet southwest of and parallel to Baldwin Street.

In April 2007, Water Board staff obtained a copy of all file information regarding this case from the Berkeley DTSC office. It included copies of DHS inspection documents as well as figures showing alleged surface dumping areas, a drum storage area, surface drains, DHS sampling locations and results.

On September 26, 2007, Water Board Staff met with Mr. Heath and his consultant, Steve Bittman (IG). Mr. Heath added that the drain pipe was installed in the 1970s by contractor Hester McGuire. He thinks the centerline is about 6-8 feet below grade, and the channel (slough) that preceded it had tidal fluctuations. The presence of a former tidal slough is supported by the USGS topographic map, which indicates a pre-development topographic drainage in the vicinity with the same orientation as the storm drain. The former tidal slough (current storm drain) daylights at the present surface water channel at the intersection of Hegenberger Road and South Coliseum Way. Steve Bittman suggested performing a round of sampling in the October/November, 2007, timeframe. He also indicated that he would review historic air photos to assess historic site conditions.