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City Council
Sacramento, California

APPROVED
BY THE CITY COUNCIL

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OFFICE OF THE
CITY CLERK

Honorable Members in Session:

SUBJECT: Status Report on Bitter Tasting Water

SUMMARY:

This report is the status of the City's efforts to identify the source of the bitter tasting water complaints received during portions of May and June of 1981 and 1982. The report also outlines the steps City staff has taken to mitigate this bitter tasting water problem in the future.

BACKGROUND:

The past two years, during the last two weeks of May and the first weeks of June, the City has received complaints regarding bitter tasting water. During the last period of these complaints, as the Council may recall, we attempted to treat the water with activated carbon but were only partially successful. This treatment, including chemicals and labor, cost the City about $50,000.

Since the latest episode of bitter tasting water, the City water treatment plant staff has been actively investigating the cause of the bitter taste and a method of treatment. To treat it successfully, we must first isolate the cause so it can be reproduced in the lab. Then, various treatment methods can be applied to attempt to cure the bitter taste.

The City suspected that one of the rice pesticides used in areas draining into the Sacramento River above our intake was responsible. First, we plotted on a City map the area of the complaints. It was plain to see that all of the complaints were coming from the area of the City served by the Sacramento River plant. The American River water was clean but the Sacramento River water, which according to our test contained some levels of rice pesticides, was not.

We tried to duplicate the taste with the heaviest used pesticide, Ordram, manufactured by the Stauffer Chemical Company. We were unable to duplicate the taste in our experiment with Ordram, so we then turned our attention to a product called Bolero, manufactured by Chevron Chemical Company. Bolero was not widely used and, in fact, has only been used during the past two years (correlating to our period of complaints). The reason Bolero has not been as widely used as Ordram is that Ordram has a full registration for its use, while Bolero has what is called a Section 18 Emergency Exemption and is allowed to be used on a limited number of acres.

City staff added Bolero to our raw water and, putting it through a lab version of the City treatment process, was able to duplicate the same taste that appeared at the beginning of last summer. This was done using established scientific procedures for the tasting panel and we are confident that Bolero is the source of our taste problem.

We were in touch with the chemical companies and various State agencies during this testing period, but it should be emphasized that all of the real research work was done by City of Sacramento staff. The water treatment plant staff did excellent work, putting in many hours of overtime to finally accomplish the identification.

Meanwhile, City staff became concerned with the actual procedures of the various regulatory agencies regarding the use of rice pesticides in rice fields and their eventual migration to the Sacramento River. At our request, we met with the staff of the Central Valley Water Pollution Control Board. We pressed them for a meeting with all parties concerned, including the State Department of Health Services, the California Department of Food and Agriculture, the chemical companies involved and the Rice Growers' Association.

Before that meeting occurred, we made further inquiries and found that these pesticides were approved under a procedure in the Department of Food and Agriculture with input from a committee composed of many State regulatory agencies. One of the things they were currently considering was the full registration of Bolero. City staff immediately requested that we be notified of any steps that were being taken to approve the registration of Bolero and allowed to participate in any meetings of this committee. As mentioned earlier in the report, Bolero has only been used for approximately two years and has a limitation relating to the 200,000 acres upon which it can be used.

We also discovered that, in addition to this main committee on the registration of pesticides, there was a subcommittee on just the registration of rice pesticides. We again requested to be informed of their meetings and to be allowed to participate. The rice pesticide subcommittee is chaired by a representative of the Department of Fish and Game and includes representatives from the State Water Resources Control Board, the Department of Food and Agriculture Worker Health and Safety, DFA Pesticide Enforcement, DFA Environmental Monitoring, representatives of the Department of Health Services Epidemiological Study Section, UCD Extension Services and the Rice Research Board.

City staff appeared at a meeting of the subcommittee and was given the opportunity to make a verbal presentation. We described to the subcommittee our problems over the last two years and the results of our research, which indicated Bolero as the source of our bitter tasting water. We stated that we are completely opposed to the registration of Bolero and that we are also completely opposed to having <u>any</u> rice pesticides in the Sacramento River water at our treatment plant intake. The subcommittee expressed their concern over this problem and voted to recommend to the full committee that Chevron Chemical Company and Stauffer Chemical Company do certain studies regarding the breakdown of the ingredients of the two pesticides and any possible harmful affects of any of the ingredients. They also requested that a proposal be submitted to the subcommittee from the two chemical companies addressing the concerns of the City of Sacramento and the subcommittee.

The City attended the meeting of the full committee and again expressed opposition to the registration of Bolero and to the presence of any rice pesticides in its water intake. The full committee approved its subcommittee's report requesting these proposals for the studies by the two chemical companies. City staff attended the next meeting of the subcommittee when the two proposals were reviewed. In fact, members of City staff had previously attended a meeting at Chevron Chemical Company lab in Richmond for a full briefing of the proposals.

We reiterated our opposition to the registration of Bolero and to the presence of either Bolero or Ordram in the Sacramento River water and our treatment plant intake. The subcommittee then passed a resolution after hearing presentations from the City and the two chemical companies. I am attaching a copy of that resolution which states that the application for conditional registration of Bolero will not be approved until the following points are satisfactorily resolved:

1. That the Department of Health Services and the Department of Food and Agriculture Worker Health and Safety certify that they have no professional concerns over possible chronic or acute health effects caused by Bolero in the Sacramento City water supply.

2. That the cause of the taste problem associated with the Sacramento River water supply be definitely identified.

3. If the cause of the taste problem is Bolero, that a feasibility study be completed which will demonstrate the applicability of the treatment process to completely mitigate the taste.

4. That the financial responsibility for this treatment process be established by the affected parties.

5. The current label submitted by Chevron Chemical concerning holding is unenforceable and, therefore, not acceptable. (Chevron has since resubmitted new label wording which requires a holding of water in the field a minimum of four days after application of pesticides. We understand this wording is acceptable to the Rice Pesticide Subcommittee. I should point out here that the best way to avoid any of these pesticides in the Sacramento River water is to hold them in the rice fields. The City's concern is over any possible enforcement program to accomplish this).

6. That more detailed proposals be submitted by Chevron Chemical for aquatic toxicology and environmental monitoring.

All of the above items are being worked on by various companies or agencies involved. We will keep the Council informed as these various problems are addressed.

FINANCIAL:

There could be a financial effect on the City in preparing additional treatment processes to mitigate the possible bitter tasting water. It is hoped that, because of the resolution of the Rice Pesticide Subcommittee, this financial responsibility will become the burden of those who are causing the problem.

RECOMMENDATION:

It is recommended that the Council direct staff to continue to oppose the registration of Bolero until all of the items in the resolution of the Rice Pesticide Subcommittee are resolved to the City's satisfaction.

Respectfully submitted,

J. F. VAROZZA
City Engineer

Recommendation Approved:

Walter J. Slipe, City Manager

JFV/hma