

DRAFT RESPONSE TO SAUGET VILLAGE  
308 LETTER FROM FEDERAL ENVIRONMENTAL PROTECTION AGENCY

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Part I; A, B, and C

Sauget agrees to execute the effluent monitoring and analysis program as described in Part 1B no later than July 1, 1977. Analytical procedures used will conform with the methods specified in 40 CFR, Part 136, 41 Federal Register, dated December 1, 1976. Results will be summarized monthly and submitted to Region V, Federal EPA at the conclusion of each month. Data submitted will be as specified in Part 1C.

Part II; A and B

At this time, Sauget does not have the analytical instrumentation required to analyze for Polychlorinated Biphenyls in wastewater. However, Monsanto Company has operated a monitoring program that includes the locations specified in Parts II (A) 1 and 2 and II (B) 1 and 2. It is Sauget's understanding that Monsanto will continue to monitor these locations for some period of time after shutdown of the PCB production unit.

Sauget objects to the monitoring requirements of Parts II (A) 3 and 4, Section II (B) 3 and 4, and Section II (B) 5, on the basis that the information is not necessary to determine effluent quantities to the receiving body, and hence does not fall under the intent or authority of Section 308 (a) of the Federal Water Pollution Control Act.

Part III

Sauget has already responded to this question in comments submitted to Mr. Walter Romanek, U.S.E.P.A., on February 14, 1977 in regards to the proposed NPDES permit issued to the Village of Sauget. This response is restated below:

An integral part of the cost-effective analysis of wastewater treatment alternatives is an evaluation of the extent of infiltration/inflow for the sewer collection systems tributary to a given waste treatment plant. The purpose of the study is to identify sources of excessive infiltration/inflow which can be economically eliminated from a sewer system by rehabilitation, as determined by a cost-effectiveness analysis that compares the cost for correcting the infiltration/inflow conditions with the total costs for transportation and treatment of the infiltration/inflow, subject to the provisions in 40CFR Section 35.927, Sewer System

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Evaluation and Rehabilitation. As part of the Step I Facilities Plan for the East St. Louis Facilities Planning Area, Metcalf and Eddy, Inc., in joint venture with Hurse-Rosche, Engineers, Inc. completed such an Infiltration/Inflow Analysis. A report on this study was issued in May of 1976 to the St. Clair County Board, which at that time was acting as lead agency for the proposed Regionalization Project.

On Page 1-4 of this report, the scope of this project is defined as follows:

#### SCOPE

The scope of work provided in this analysis can be summarized generally under nine headings as follows:

- A. Physical description of the facilities planning area.
- B. Description and discussion of the sewer systems in the area.
- C. Determination of existing total flows in the several sewer systems.
- D. Estimates of sanitary flows.
- E. Identification and quantification of infiltration and inflow.
- F. Estimates of costs of correction of infiltration/inflow.
- G. Estimates of costs of transportation and treatment of infiltration/inflow.
- H. Identification of areas or sub-areas subject to possibly excessive infiltration/inflow.
- I. Preparation of a plan of study for subsequent sewer system evaluation survey.

Concerning the Sauget Village sewer system, the study included an evaluation of the major collecting sewers owned by the Village. A summary of the sizes and physical properties of the major collecting sewers as shown in Table 3-24, page 3-82 of the report, is given below:

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TABLE 3-24. VILLAGE OF SAUGET COLLECTION SEWERS

| <u>PIPE DIAMETER,<br/>INCHES</u> | <u>SEWER DEPTH, FEET<br/>MAX.</u> | <u>FEET<br/>AVG.</u> | <u>PIPE LENGTH,<br/>FEET</u> |
|----------------------------------|-----------------------------------|----------------------|------------------------------|
| 8                                | 16.3                              | 10.0                 | 3,643                        |
| 10                               | 8.5                               | 7.5                  | 351                          |
| 12                               | 8.9                               | 12.5                 | 4,027                        |
| 15                               | 14.0                              | 11.7                 | 1,189                        |
| 18                               | 19.0                              | 10.5                 | 1,257                        |
| 21                               | 17.0                              | 11.0                 | 2,017                        |
| 24                               | 11.7                              | 11.0                 | 6,326                        |
| 30                               | 25.0                              | 15.0                 | 2,200                        |
| 36                               | 29.0                              | 17.2                 | 6,937                        |
| 42                               | 11.0                              | 11.0                 | <u>110</u>                   |
| TOTAL                            |                                   |                      | 28,057                       |

The study did not include the sewer systems in service within the major industrial plants within the Village.

In discussing the findings of the I & I Analysis, Metcalf and Eddy stated the following:

1. "Damage to the sewer system following the 1973 flood was confined to breaks in sewer lines adjacent to junction boxes caused by differential vertical movement between the sewer lines and the structures. This damage was repaired in 1973 and 1974 since which time no further evidence of damage or failure has been reported." (pg. 3-82)
2. "No field inspections were carried out in Sauget during the infiltration/inflow analysis for several reasons. One was the recent work done by Monsanto Biodize Systems, Inc., for design of the new wastewater treatment facility which provided sufficient information as to preclude further study. Secondly, an inspection of treatment plant flow records did not reveal the seasonal variations in flow indicative of a system subject to possibly excessive infiltration. Furthermore, despite the yearly fluctuations in groundwater levels that peaked after the 1973 flood, no appreciable change in flow pattern was observed after a study of the plant records from 1972 to 1975." (Pg. 3-84)

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3. "There are two reasons why infiltration in the Sauget sewer system is not a problem. One is the shortness of the system itself. With only a little over five miles of sewers in the ground, there are fewer joints to infiltrate ground water. The second reason is the special precautions taken in the construction of the sewers to guard against the industrial wastes exfiltrating through the pipes. As mentioned in Chapter 3, all joints are sealed, and the sewers are either concrete encased or have a concrete cradle. Finally, because of the special problems that a sewer break in Sauget presents, the sewers receive regular maintenance attention." (Pg. 4-42)

From their evaluation, Metcalf and Eddy concluded (Pg. 8-2) that "the sewer system tributary to the Sauget treatment plant is not subject to possibly excessive infiltration." No further sewer system evaluation work was proposed. The Village concludes from this report that the sewer system within Sauget is in sound condition, and that the requirement for further evaluation in the proposed permit would serve no purpose.

Since the time of this response, a leak was detected in the Village sewer transmission line servicing the Monsanto Plant. Repair work started immediately, and was completed in May, 1977. Additionally, the Village is aware of failures in two main sewer transmission lines immediately upstream from the treatment plant. Proposals for repair of these sewer lines are being developed by an Engineering Consultant. The Village fully intends to proceed with these repairs.

#### Part IV A

- (1) The total amount of sludges, screenings and solids is estimated to the 80 cubic yards per day. The primary source of solids from the newly constructed chemical treatment plant is the sludge filtration operation, which is undergoing start-up at this time.
- (2) All solids will be transported by United Disposal Company, 1838 North Broadway, St. Louis, Missouri, 63102.
- (3) Disposal of solids will be at an Illinois EPA approved land-fill site. A copy of the current permit issued by IEPA is attached.

#### Part IV B

- (1) The total amount of oil skimming that will be collected by the newly constructed Sauget Chemical Treatment Plant is estimated to be 10,000 gallons per month.

- (2) Alternatives for ultimate transport and disposal of oil skimmings are presently being evaluated. Skimmings generated by
- (3) the chemical treatment plant since its' April, 1977 start-up have been disposed of in evaporation ponds located on the treatment plant site.

#### Part V

The Village does not have access to the information requested in Part V, nor does it possess the authority required to obtain information of this magnitude and detail. Information concerning the discharge from each major user as necessary to design the chemical waste treatment plant was submitted to the Illinois EPA by Sauget Village in its' construction permit application dated January 19, 1973.

Additionally, information pertaining to the discharge from each major user of the Sauget Treatment System was submitted to Federal EPA by Sauget in its' most recent NPDES permit application, dated April 9, 1976. Included in that submittal was information concerning products and raw materials from each user.