

## MEMORANDUM OF UNDERSTANDING

Between

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, SAN FRANCISCO BAY REGION

And

COUNTY OF NAPA

STATEMENT OF INTENT

The California Regional Water Quality Control Board (hereinafter Board) and the County of Napa (hereinafter County) enter into the following memorandum of agreement to establish conditions and a procedure for waiver of waste discharge requirements issued by the Board for winery process waste treatment and disposal systems in Napa County. The Board has previously waived the issuance of requirements for wineries in which both domestic and process wastes are disposed of by subsurface means. This waiver is conditioned upon approval of the subsurface system by the County's Division of Environmental Health. Systems involving other forms of treatment for winery process waste are presently subject to permitting and regulation by both the Regional Board and the County. This agreement will eliminate duplication of effort and reduce the time required to obtain a county building permit by waiving, reducing or eliminating much of the Regional Board's formal involvement, subject to certain conditions which will assure the Board that its concerns regarding the water quality effects of these discharges are being addressed at the County level.

FINDINGS

1. Winery process wastewater discharges in Napa County are presently regulated by both the Regional Water Quality Control Board and the County.
2. Section 13269 of the California Water Code provide that a Regional Board may waive the filing of reports of waste discharge for certain specific types of discharge where such a waiver is not against the public interest. Such a waiver shall be conditional and may be terminated at any time by the Board.

3. The County is presently involved in virtually all aspects of approval and regulation of winery wastewater discharges. The County desires to assume primary responsibility for these discharges.
4. Regulation of discharge of winery process and/or sanitary waste to subsurface leach field systems has been previously conditionally waived to the County's Division of Environmental Health.
5. The Regional Board, on July 21, 1982, authorized the Executive Officer to execute a Memorandum of Understanding with the County by which the Board would conditionally waive the direct regulation of the most common form of winery wastewater treatment and disposal systems provided the County agreed to regulate such systems under appropriate conditions.

#### AGREEMENT AND CONDITIONS

The Regional Board hereby waives the need for filing of Reports of Waste Discharge from wineries in Napa County, and the County, through its Division of Environmental Health, hereby agrees to regulate such discharges, subject to the following conditions:

1. The waiver will apply only to winery process waste treatment and disposal systems. Systems which handle combined sanitary and process waste in anything other than a conventional septic tank and leach field will continue to require waste discharge requirements from the Regional Board or a written waiver from the Executive Officer.
2. The County will require that applications be filed for any new winery wastewater discharge and for any significant change in the quantity or characteristics of an existing discharge. A complete application will require a detailed engineering design including drawings, specifications and design calculations including water balances where appropriate.
3. The County will carry out design review prior to issuance of permits in order to ascertain that the proposed design is likely to be adequate to meet permit requirements and to protect water quality. Designs will be required to conform to the "Criteria for Wastewater Storage Ponds" developed by Regional Board Staff. (Attachment a).

4. The County will provide notification to the Regional Board fifteen (15) days in advance of the issuance of each winery process wastewater permit. The notification will include transmittal of the application including supporting materials and plans that have been found to be acceptable to the County.
5. The County will issue a permit for each winery process wastewater discharge. The permit will include the standard specifications and prohibitions which have been included in Regional Board's Waste Discharge Requirements for similar facilities. (Attachment b).
6. County permits will contain a provision that the discharger must carry out a standard self-monitoring program, which will be developed by the County in cooperation with Regional Board staff. The records of this monitoring will be maintained on site by the discharger and available for inspection by County or Regional Board staff.

The County may also require dischargers to submit reports to it on a regular basis. The self-monitoring program will also require the discharger to immediately notify the County of any spill or bypass event.

The County shall immediately notify the Regional Board in cases where wastewater enters or threatens to enter waters of the State.

7. The County permit will contain an access clause providing Regional Board staff with access to the property and wastewater facility for inspection of wastewater facilities.
8. The County will perform routine inspections on a regular basis. Each facility will be inspected no less than once per year, during the crushing season if possible. Spot inspections will also be performed during the wet season to monitor compliance with freeboard requirements.
9. The Regional Board will provide technical assistance to the County as requested during the design review process.
10. The Regional Board may comment within fifteen (15) days after notification on a pending county approval.
11. The Regional Board will require a Report of Waste Discharge and will formally consider waste discharge requirements for specific discharges upon request from the County or discharger. The Board also may require a Report of Waste Discharge and/or Waste Discharge Requirements for specific discharges at the Regional Board's discretion.

12. The Regional Board will continue to enforce the Water Code in cases where there are violations or threatened violations of the basin plan provisions or prohibitions.
13. The County shall submit an annual report to the Regional Board covering permits issued (list wineries and location), result of self monitoring programs, results of inspections and status of correction of violations.
14. The Regional Board or the County shall have the option to terminate this agreement at any time upon thirty (30) days written notice.

Alan Henderson 12/1/82  
Alan Henderson, Chairman  
Regional Water Quality  
Control Board  
San Francisco Bay Region

NOV 23 1982  
Harold Moskowitz  
Harold Moskowitz, Chairman  
Napa County Board of Supervisors

REGIONAL WATER QUALITY CONTROL BOARD  
**SAN FRANCISCO BAY REGION**

Attachment a

INTERNAL MEMO File No. 1210.13(DME)tmh

Fred H. Dierker

Executive Officer

FROM: Don M. Eisenberg

DATE: February 8, 1982

SIGNATURE: *Don Eisenberg*

SUBJECT: CRITERIA FOR WASTEWATER STORAGE PONDS

Pond systems are widely used in the less urbanized areas of the San Francisco Bay Region for the treatment, storage, and disposal of wastewater. In many instances pond systems are designed for use in conjunction with application of the waste to agricultural lands, such as is the case for ponds serving wineries and dairies.

The variable nature of winter rainfall is a fundamental consideration in the design of such systems. Ponds of insufficient size will overflow or flood out during wetter than normal seasons, often with serious health and environmental consequences. On the other hand the cost of facilities that will withstand even the wettest of winters may be unacceptably high. I believe there is a need to establish a balance between environmental and economic considerations for the design of pond systems. This memo reviews the situation in some detail, and recommends criteria for the sizing of wastewater pond systems in the San Francisco Bay Area.

The need for such criteria is especially acute at present because of the number of pond systems found to be grossly inadequate during this wet season. The Board has been requesting the submittal of plans for pond and disposal area upgrading, and there is a need for consistent criteria for determining the adequacy of the plans submitted.

It should be stressed that the following discussion applies only to ponds used for sewage, animal wastes, or food processing wastes from facilities such as wineries. This discussion is not intended to apply to facilities for the treatment, storage or disposal of hazardous, toxic, or other kinds of industrial wastes. These are covered by other regulations.

DESIGN CONSIDERATIONS

The Board cannot specify the design of pond systems, but it is useful to review the methodology in order to appreciate the discussion of criteria for wet season reliability. This discussion covers two kinds of ponds; holding ponds used for the storage of wastewater until such time as discharge is allowed, and disposal ponds from which no discharge is allowed.

For either kind of pond, the fundamental design tool is the water balance, in which inputs to the pond (wastewater plus rainfall) plus storage (the available volume of the pond system) must equal outputs (evaporation plus percolation plus allowable discharge to land or receiving waters).

Both rainfall and evaporation vary from year to year, but the variation in rainfall is by far the more important from a design standpoint. A useful concept in this regard is return frequency, or the interval over which, on an average, a given amount of rainfall can be expected. A good statistical basis exists in the Bay Area for defining the normal winter's rainfall, as well as those amounts falling in the wettest winter in ten years, in fifty years, etc.

The kinds of holding and disposal pond systems under discussion here are typically of sufficient size that the seasonal rainfall controls the design rather than rainfall over some shorter duration. For example a pond system designed to hold wastewater plus 40 inches of rainwater would be in no danger of overflow from a large 24 hour storm, which might be only six to ten inches. An exception to this occurs in cases where significant disposal is allowed during the winter. In such cases, an adequate minimum freeboard requirement must provide protection from shorter-duration high-rainfall events.

#### Holding Ponds

Holding ponds are widely used in the Bay Area, notably by dairy ranches, wineries in the Napa and Sonoma Valleys, and the towns of St. Helena, Calistoga, and Bolinas. A typical use of holding ponds is for the storage of wastewater during the wet season with application to agricultural land during the dry season.

Holding ponds are designed on the basis of the anticipated waste flow during the period in which storage is necessary, plus the rainfall onto the ponds, minus any evaporation that occurs. Holding ponds are designed only for storage, and thus the primary consideration is volume rather than surface area. In this case rainfall is important only in the sense that, for the wet season that is the basis for design, the pond must be somewhat deeper than would be the case if normal rainfall were assumed. For example, if the once in ten year wet season were the design criterion, a pond in the Bay Area might have to be somewhere around a foot deeper than for a normal year.

This extra rain falling on the pond must also be disposed of. Where the method of disposal is by application to agricultural land, sufficient acreage must be provided. For dairy ranches and most wineries, land area is not a limiting factor.

### Disposal Ponds

Disposal ponds receive wastewater and rainfall, which must be disposed of by a combination of evaporation and percolation. Because of the large area required, disposal ponds are used less than the system of holding ponds with agricultural disposal. A handful of motels and trailer parks presently use disposal ponds.

Disposal ponds tend to rely primarily on evaporation rather than percolation. This is due to the local conditions of soil and ground water elevation, and to the tendency of ponds to seal themselves with time. Where evaporation is the primary mode of disposal, pond design is based on evaporation minus rainfall. For example, if the total water loss is 60 inches per year and the total rainfall is 35 inches per year, then the net water loss per unit area would be at a rate of 25 inches per year. This would mean that 25 acre-inches, or 680,000 gallons, of wastewater could be disposed of by each acre of pond surface per year.

It was noted earlier that annual evaporation tends to be relatively constant from year to year, but rainfall can be highly variable. In practice required disposal pond size is highly sensitive to the amount of rainfall assumed. This point is illustrated in Table 1 below using the previous example, in which evaporation is 60 inches and average rainfall 35 inches, and assuming the once in ten year wet winter has about 40 per cent more rain than an average year.

Table 1

Effect of Rainfall on Disposal Pond Design

	<u>Normal Year</u>	<u>Ten Year Wet Year</u>
Evaporation, in.	60	60
Rainfall, in.	35	49
Net Water Loss, in.	25	11

For the case given in Table 1, the requirement of design for the once in ten year wet season more than doubles the required area for any given flow. As will be discussed below, one regulatory strategy for handling this situation is to allow ponds to be designed with the assumption that some defined wet year is followed by one or more normal years. In effect this approach would allow storage carry over from one year to another (greater depth) to serve in lieu of surface area.

### CRITERIA FOR WET WEATHER RELIABILITY

The selection of criteria for wet weather reliability involves a tradeoff between the environmental consequences of overflows on one hand, and the added costs in the form of larger ponds and disposal areas on the other.

### Consequences of Overflow

It is useful to consider the sequence of events during a winter having rainfall greater than that selected as a design criterion. If properly operated, holding or evaporation ponds would begin the wet season drawn down to the design storage volume. This volume would be used up with the unusually heavy rainfall as the winter went on, until a time would occur late in the winter in which no more water could be added. In this case the least harmful alternative would probably be to pump waste from the ponds onto the now saturated disposal area, from which runoff may occur to waters of the state. This would be preferable to discharge of raw influent waste, in that the pond contents would have had several months treatment plus dilution with incident rainfall. The environmental impacts of such a discharge would be mitigated to some extent by the greater than average diluting flow that would presumably be available in receiving waters.

There is no way in which the adverse environmental impacts of such an event can be quantified. All that can be said with any certainty is that the less often overflows occur the better; but that the consequences of wet winter overflows are likely to be less severe than for normal years. This situation inevitably shifts the focus of the issue to the feasibility of compliance.

### Cost of Compliance for Holding Ponds

I have made an effort to estimate the costs of compliance with various criteria for holding ponds for wet winters in terms of both pond volume and disposal area. Conditions typical of the North Bay were assumed; namely 60 inches annual evaporation, 35 inches of rainfall, and wet years for various recurrence intervals are taken from a standard U. S. Geological Survey paper on the subject. An effort was also made to estimate the dollar impact of compliance with various recurrence intervals, based on assumptions as to cost of land, excavation, and shaping and compaction of dikes. The actual dollar costs generated in this exercise are obviously of little direct value, but they did serve to demonstrate the relationship that exists between costs of compliance with the baseline condition (retention for the average winter) and compliance costs for more demanding criteria. The results of this analysis are summarized in Table 2.



Table 2

Typical Effects of Wet Weather Criteria on Size and Cost of Holding Ponds<sup>1</sup>.

<u>Design Criterion</u>	<u>% Additional Pond Volume Required</u>	<u>% Additional Disposal Area Required</u>	<u>Cost</u>
Average Wet Season	0	0	0
5 Year Wet Season	13	8	11
10 Year Wet Season	31	16	25
25 Year Wet Season	53	27	43
100 Year Wet Season	96	57	80

<sup>1</sup> For St. Helena California based on 70 years of rainfall data

Note: These designs were based on no disposal during wet season (November through March)

The data in Table 2 reveal no obvious break point for establishing a criterion. I do feel five year criterion would be inadequate because the small additional sizes for holding ponds and disposal area is less than the uncertainty that exists as to wastewater flow and other variables. The ten year critrion would require ponds around 30 percent larger than would be required for only average winter conditions. This seems an adequate measure of safety.

The once in ten year criterion has precedent in a number of other cases; it is contained in several EPA industrial effluent guidelines where rainfall is a factor, in the State Board's guidelines for animal waste disposal, and the ten year wet winter was approved by the Board as the design basis for the Bolinas pond system.

#### Costs of Compliance for Disposal Ponds

An analysis similar to that illustrated by Table 2 above was carried out for disposal ponds in which evaporation was the only mode of water

loss. As noted earlier in the discussion, assumptions with respect to rainfall have profound implications for pond design. One means of providing protection against frequent overflow while minimizing added costs is to assume that one or more years following the design year are of average rainfall, and allow the discharger to carry over some of the extra rainfall into the second dry weather season or beyond. In effect this approach would allow the discharger to substitute pond depth for pond area. (In theory, if ponds were of infinite depth, they would need only be designed for an average winter). The results of this analysis are summarized in Table 3.

Table 3

Effects of Wet Weather Criteria on Size and  
Cost of Disposal Ponds

<u>Design Criteria</u>	<u>Additional Pond Area Required</u>	<u>Additional Pond Volume Required</u>	<u>Additional Pond Cost</u>
Avg. Wet Season	0	.0	0
10 yr. Wet Season	125%	125%	125%
100 yr. Wet Season	Not possible in most of this region		
10 yr. Wet Season followed by <u>two</u> avg. years	24%	24%	24%
10 yr. Wet Season followed by <u>one</u> avg. yr.	42%	42%	42%

This analysis indicates that use of the 100 year winter criterion would absolutely rule out the use of evaporation ponds, and even the ten year wet winter criterion would probably have the practical effect of eliminating their use. The allowance for carryover of the added rainfall into more than one subsequent dry season radically lowers the cost of compliance. As was the case for holding ponds, the data indicate no obvious break points. I believe the Board would be well advised to avoid too much flexibility in this area based on three considerations; our experience with the tendency of dischargers to underestimate wastewater flows, the lack of flexibility of evaporation

systems (expansion can demand land that is not readily available) and the fact that most such systems are used for sewage rather than process wastes which are typically of less health concern. Based on the above I recommend the Board use the ten year followed by one normal year criterion.

#### Criteria for Freeboard

Freeboard is defined as the difference between the elevation of the top of the berm and wastewater level in the pond. A pond that is properly designed and operated will generally achieve maximum design freeboard immediately prior to the onset of the wet season (early October in this area). Freeboard requirements, which specify that, at minimum, a certain amount of freeboard be maintained at all times, are intended to insure that excess holding capacity is always available to protect against high-rainfall events of shorter than seasonal duration. Examples of such events are individual storms of extremely high intensity (such as that experienced in this area on January 4, 1982) and wet periods of several months duration (such as the 15-day period preceding the January storm).

Extra freeboard also protects against unanticipated short-term increases in wastewater flow, such as a process spill or broken water line. Furthermore, extra freeboard provides the potential to accommodate intentional but unanticipated increases in the routine wastewater flow. Finally the requirement for excess freeboard protects the berms from wave erosion and provides additional safety in the event of a seasonal rainfall which exceeds that of the design recurrence interval.

Six inches is the minimum freeboard that could possibly be considered, as that is barely sufficient to protect from the effects of wind and waves. A one foot minimum freeboard requirement is considered adequate by many pond designers, but it leaves little margin to accommodate all of the elements mentioned above, which represent essentially unpredictable excess loadings. Two feet of minimum freeboard is almost certainly sufficient to deal with the effects of any of these unknown elements on a basically sound pond design with good operation.

#### Protection from Flooding

Flooding of ponds from the outside is another common type of wet weather pond failure. Ponds can be protected from flooding by requiring that they be constructed outside of flood plains or at least that the elevation of the top of the berm be higher than the maximum high water predicted on some specified recurrence interval. Most flood control districts and federal grants require protection of this type of facility from the 100-year flood. Provision for diversion and drainage of storm runoff around the ponds is another consideration that is important in flood protection. Storm drainage provisions such as

ditches and culverts must be designed on the basis of the maximum intensity expected for a rainfall event of relatively short duration. In general these designs are based on the maximum intensity expected for a period of one to several hours, but the exact duration used is a function of the area that is drained.

#### OTHER AGENCY CONCURRENCE

Since most pond system proposals are for rural areas located in the North Bay, staff contacted a number of agencies in Marin, Sonoma, and Napa County concerning the pond system criteria contained in this report. These agencies include Marin County Health, Marin County Flood Control District; Sonoma County Health, Sonoma County Department of Public Works; Napa County Health, Napa County Flood Control District; the Department of Fish and Game; and the Soil Conservation Service. In general, all of the agencies contacted expressed support for stringent pond system criteria with designs based upon a water balance.

All agencies believed the two feet freeboard requirement to be appropriate. All flood control agencies required protection from the 100 year flood event. Napa County Flood Control District further requires ponds to have outside berms three feet higher than the 100 year flood elevation if constructed in the flood plain. In addition, Napa County Health requires a 15 foot roadway on all berms for mosquito control access. Sonoma County requires a 10 foot roadway.

#### IMPLEMENTATION

Properly designed and managed pond systems for existing developments should not be affected by the criteria presented in this analysis. It is anticipated that the design criteria presented in this analysis be used by staff when reviewing a report of waste discharge for a new development proposing to use a pond system. This design criteria would also be used to evaluate pond systems which have failed or overflowed. In these cases, the first staff priority would be to require the discharger to minimize the environmental effects resulting from the failure. Secondly, the discharger would be required to submit a water balance for the existing pond system or for an upgraded system based upon defined criteria. Lastly, revised waste discharge requirements would be recommended to the Board based upon the water balance.

Pond system failure could be due to a number of reasons including an extremely wet winter, an increase in wastewater flows incorrectly reported to the Board through a discharger's self-monitoring program, a process upset wherein an inordinately large volume of wastewater (perhaps cleaning water) is sent to the ponds, a flood flow greater than the pond levees can withstand, improper levee maintenance against erosion, or improper pond system management.

Pond system management is the major factor in pond systems utilizing land disposal. If the ponds are not drawn down to the proper freeboard level recommended by the water balance for the start of the winter, it is likely the ponds will overflow. In addition, for those pond systems where a wet season disposal is part of the water balance and is allowable by the waste discharge requirements, the ponds must be continually drawn down when environmental conditions permit.

#### SUMMARY AND RECOMMENDATIONS

Winter rainfall is an important variable in the design of wastewater ponds and land disposal systems. Consistent criteria are desirable for defining the wet season conditions to be assumed for the purposes of design. The following criteria are recommended:

**Holding Ponds** - The 10-year wet seasonal rainfall should be the design basis for holding ponds. The ponds should have the capacity to store the anticipated rainfall plus wastewater for the wet season. Two feet of freeboard should be maintained at all times. The discharger should be required to document, by October 1 of each year, that adequate freeboard exists for anticipated rainfall (10-year wet season) plus wastewater for the wet season. All ponds should be protected from washout or erosion resulting from flood flows less than the 100-year return interval.

**Disposal Area** - The discharger should document, by appropriate soils and engineering studies, that adequate area exists to dispose or reclaim all annual wastewater plus the 10-year wet seasonal rainfall during the seven month dry season. If the discharger provides adequate documentation, allowance should be made to dispose of some wastewater during the wet weather months.

**Evaporation Ponds** - The 10-year wet seasonal rainfall should be the design basis. For evaporation ponds, a normal year's rainfall shall be assumed to follow the 10-year wet season. Two feet of freeboard should be maintained at all times. The discharger should be required to document, by October 1 of each year, that adequate freeboard exists for anticipated rainfall (10-year or average) plus wastewater flows for the wet season. All ponds shall be protected from washout or erosion resulting from flood flows less than the 100-year return interval.

STATE WATER RESOURCES CONTROL BOARD

RESOLUTION NO. 68-16

STATEMENT OF POLICY WITH RESPECT TO  
MAINTAINING HIGH QUALITY OF WATERS IN CALIFORNIA

WHEREAS the California Legislature has declared that it is the policy of the State that the granting of permits and licenses for unappropriated water and the disposal of wastes into the waters of the State shall be so regulated as to achieve highest water quality consistent with maximum benefit to the people of the State and shall be controlled so as to promote the peace, health, safety and welfare of the people of the State; and

WHEREAS water quality control policies have been and are being adopted for waters of the State; and

WHEREAS the quality of some waters of the State is higher than that established by the adopted policies and it is the intent and purpose of this Board that such higher quality shall be maintained to the maximum extent possible consistent with the declaration of the Legislature;

NOW, THEREFORE, BE IT RESOLVED:

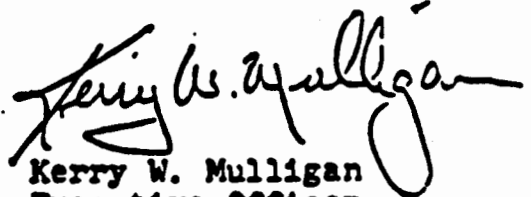
1. Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.
2. Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.
3. In implementing this policy, the Secretary of the Interior will be kept advised and will be provided with such information as he will need to discharge his responsibilities under the Federal Water Pollution Control Act.

BE IT FURTHER RESOLVED that a copy of this resolution be forwarded to the Secretary of the Interior as part of California's water quality control policy submission.

CERTIFICATION

The undersigned, Executive Officer of the State Water Resources Control Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 24, 1968.

Dated: October 28, 1968



Kerry W. Mulligan  
Executive Officer  
State Water Resources  
Control Board

ATTACHMENT b  
STANDARD SPECIFICATIONS AND PROHIBITIONS  
FOR  
WINERY PROCESS WASTEWATER DISCHARGES

FLOW RATE

- 1) Maximum flow (30 day average) shall be limited to that specified in the permit.

TREATMENT AND/OR HOLDING PONDS

- 1) At least two feet of freeboard shall be maintained in the holding pond at all times.
- 2) The dissolved oxygen concentration in the ponds within one foot of the surface shall be maintained above 3.0 mg/l at all times.
- 3) The pond pH shall be maintained between pH 6.0 minimum and pH 9.0 maximum at all times.

RECLAIMED WATER IRRIGATION OR SEASONAL EVAPORATION PONDS

- 1) The area used for wastewater irrigation/disposal shall be limited to the area specified in the permit application unless written authorization for a change in location is obtained from the Division of Environmental Health.
- 2) No waste shall be applied to the irrigation/disposal area in anticipation of or during rainfall, forty-eight hours after a rainfall, or when soils are saturated to a point where runoff is likely.
- 3) No waste shall be allowed to escape the irrigation/disposal area via surface flow or airborne spray. Surfacing after percolation within 100 feet of the point of application is prohibited.
- 4) Ponding should not occur in the irrigation/disposal area in amounts which could cause a mosquito problem.
- 5) If a use restriction should be violated, the irrigation with reclaimed wastewater shall be immediately terminated and not resumed until all violations and conditions which would permit the violations to occur have been corrected.



GENERAL PROVISIONS AND PROHIBITIONS

- 1) Neither the treatment, storage, nor disposal of wastes shall create a nuisance as defined in Section 13050(m) of the California Water Code.
- 2) The disposal of wastes shall not cause the degradation of any water suitable for domestic use or cause a change in any water quality parameter that would make groundwater unsuitable for irrigation use.
- 3) There shall be no bypass or overflow of waste to waters of the State from the collection, treatment, transport, storage, or disposal system.
- 4) The discharger shall maintain in good working order and operate as efficiently as possible any facility or control system installed by the discharger to achieve compliance with the conditions of this permit.
- 5) The discharger shall permit the Regional Board or its authorized representative in accordance with California Water Code Section 13267(c):
  - (a) Entry upon premises in which an effluent source is located or in which any required records are kept.
  - (b) Access to copy any records required to be kept under terms and conditions of this order.
  - (c) Inspection of monitoring equipment or records, and
  - (d) Sampling of any discharge or water reuse.
- 6) The discharger shall carry out a self monitoring program according to detailed specifications as directed by the Napa County Division of Environmental Health.