I: Rice Conditions

Seepage Mitigation Requirements

For purposes of mitigating seepage in rice production:

- Seepage is lateral movement of irrigation water through a rice field levee or border to an area outside the normally flooded production area. Seepage can occur through levees into adjacent dry fields or into adjacent drains and canals.

Any visible seepage moving offsite during the water-holding period that drains into the waters of the State is considered an early release and is a water-holding violation.

Please refer to the brochure, *Seepage Water Management, Voluntary Guidelines for Good Stewardship in Rice Production*, Publication 21568, for suggested management practices.

General Water-Holding

The following seepage control requirements apply to all rice pesticides having mandatory water-holding requirements such as thiobencarb, etc. Non-compliance with seepage requirements is considered a water-holding violation.

- Rice pesticides, such as thiobencarb, shall not be applied to rice fields exhibiting visible water seepage that moves offsite into drains that are considered state waters.
- Borders surrounding each rice field shall be compacted before water is allowed to fill the field; the degree of compaction shall be sufficient to prevent water from seeping through the border. For example, compaction may be achieved by driving the tires or tracks of a tractor, or other heavy vehicle, on one side of the border.
- This requirement applies to new or reworked existing borders for the current rice season.
- A common border between two existing rice fields does not need to be compacted.

Malathion

It is recommended that all water from fields treated with pesticides containing malathion should be retained on the site of application or contained within a tailwater recovery system, or other system, adequate to prevent discharge to waters of the State for at least four days following application.

Thiobencarb

Rice fields treated with thiobencarb, except those treated with Abolish® 8EC:

A. Except as listed below, all water on treated fields must be retained on the treated fields for at least 19 days following application. When drainage begins, water discharge must not exceed two inches of water over a drain box weir for an additional seven days. Unregulated discharges from these fields may begin after 26 days.

    1. When water is contained within a tailwater recovery system, ponded on fallow land, or contained in other systems appropriate for preventing discharge, the system may discharge 19 days following the last application of thiobencarb within the system

unless:

a. The system is under the control of one permittee, then water may be discharged from the application site in a manner consistent with product labeling (14-day water-hold period)
b. The system includes drainage from more than one permittee, then water must be retained on site of application for six days before discharged from the application site into the system.
c. Water is on fields within the bounds of areas that discharge negligible amounts of rice field drainage into perennial streams until fields are drained for harvest. Water-hold may be reduced to six days, if the commissioner evaluates such sites and verifies the hydrologic isolation of the fields.

All areas, fields treated with Abolish®8EC:

B. Except as listed below, all water on treated fields must be retained on the treated fields for at least 19 days following application. When drainage begins, water discharge must be released at a volume not to exceed two inches of water over a drain box weir for an additional seven days. Unregulated discharges from these fields may begin after 26 days.

1. When water is contained within a tailwater recovery system, ponded on fallow land, or contained in other systems appropriate for preventing discharge, the system may discharge 19 days following the last application within the system unless:

a. The system is under the control of one permittee, then water may be discharged from the application site in a manner consistent with product labeling (14-day water-hold period)
b. The system includes drainage from more than one permittee, then water must be retained on site of application for six days before discharged from the application site into the system.
c. Water is on fields within the bounds of areas that discharge negligible amounts of rice field drainage into perennial streams until fields are drained for harvest, then water-hold may be reduced to six days if the commissioner evaluates such sites and verifies the hydrologic isolation of the fields.

Emergency release requirements (Salinity damage):

The county agricultural commissioner may authorize the emergency release of field water after a minimum 19-day water-hold period after the last thiobencarb application, following the review of a written application that demonstrates salinity levels are damaging to the crop.

A. Applicants for such emergency releases must provide the following information:

1. All information indicated on the emergency release request form (Form A), including a description of the severity and extent of salinity damage.
2. Electrical conductivity (EC) measurements expressed as deciSiemens per meter (dS/m) or microSiemens per centimeter (μS/cm), from field water in each paddy suspected of having salinity problems. To most effectively demonstrate salinity problems, measurements should be taken wherever salinity problems are evident.

3. The instrument (make and model) used to determine EC measurements. The instrument must have a sensitivity range that accommodates the full range of EC values in intake and paddy water (usually a range of 0-5.0 dS/m or 0-5,000 µS/cm should be sufficient) and should have a resolution of not less than five percent. The instrument must be calibrated according to the manufacturer's instructions. The applicant must specify the method of temperature compensation (i.e., automatic, conversion table).
4. Who made the EC measurements?
5. The source of irrigation water (e.g., district supply canal, drainage canal, well, etc.).

B. An emergency release may be granted only if all of the following conditions are satisfied:

(a) All required information is provided.
(b) Water management requirements for rice pesticides, other than thiobencarb are satisfied.
(c) EC of paddy water exceeds 2.0 dS/m or 2,000 µS/cm.
(d) The county agricultural commissioner or his/her staff inspects the site.

C. Water may be released from paddies where EC measurements exceed 2.0 dS/m or 2,000 µS/cm and from paddies down gradient from such paddies within the same field. Water shall only be released in an amount necessary to mitigate the salinity problem.

D. Those issued an emergency release must submit to the county agricultural commissioner a report (Form B) indicating the time and duration of the emergency release and data that can be used to calculate the total volume of water released during the emergency release.

FORM A

RICE PESTICIDES WATER MANAGEMENT REQUIREMENTS, Emergency Release Request Form

Thiobencarb

Grower:_____ Permit No.:_____

Address:_____ Zip:_____

Field Location:_____ Site No.:_____

Chemical applied:_____ Chemical applied:_____

Rate of application:_____ Rate of application:_____

Date of application:_____ Date of application:_____

Average water depth
at time of application:_____ Average water depth
at time of application:_____

Starting date of emergency release:_____

Acres treated in field:_____ Laser leveled: Yes_____No _____

Type of irrigation system: Flow through_____Recycle_____Static_____Other_____

Date flooding began:_____ No. of days it takes to fill field:_____

Describe problem that led to emergency release:_____

_____

_____

Steps that can be taken to prevent emergency releases from this field in future years:_____

_____

_____

Recommendation by (attached):_____

Applications by:_____

Grower's signature:_____ Date:_____

Approved by:_____
Agricultural Biologist

(Rev. 1-10)

FORM B

RICE PESTICIDES WATER MANAGEMENT REQUIREMENTS, Emergency Release Report Form

Thiobencarb

Grower:_____ Permit No.:_____

Address:_____ Zip:_____

Field Location:_____ Site No.:_____

Beginning date of release:_____ Ending date:_____

The grower must determine the amount of water discharged during the emergency release period. To do this, measure the width of each weir opened to allow the discharge. Then, on a daily basis, measure the height of water flowing over each weir. Record all information in the table below.

Weir 1		Weir 2		Weir 3	
Width:		Width:		Width:	
Date	Height of water	Date	Height of water	Date	Height of water