

**Regulation of  
Agricultural Burning  
in the  
State  
of Hawaii**

## **Agricultural Burning in Hawaii**

### **Sugarcane**

- **45,000+ acres; Maui, Kauai**
- **About half of total acreage is burned each year, due to Hawaii's two-year crop cycle**

## **Agricultural Burning in Hawaii**

### **Sugarcane**

- **Burning is a standard harvesting practice throughout the world, including U.S. Mainland**

## **Agricultural Burning in Hawaii**

### **Pineapple**

- **About 13,000 acres; Oahu, Maui**
- **Occasional pre-plant burning on Oahu, currently no burning on Maui**

### **Other Crops**

- **Burning generally small-scale**

## **Agricultural Burning in Hawaii**

- **Sugarcane is burned prior to harvest**
- **Two-year crop results in tangled mass of cane that cannot be mechanically harvested**

## **Agricultural Burning in Hawaii**



**Burning  
removes dried  
leaves (trash),  
reducing trash  
hauled from  
fields by  
50-60%**



## **Agricultural Burning in Hawaii**

**Seed fields are grown for one year, harvested mechanically; trash blanket is not burned**

## **Agricultural Burning in Hawaii**

### **Burning of sugarcane:**

- **Reduces cane trash and soil/rocks hauled to factory**
- **Improves factory performance, recovery, and sugar quality**

## **Agricultural Burning in Hawaii**

### **Burning of sugarcane:**

- **Reduces bagasse moisture, ash**
- **Prevents trash blanketing of fields**
- **Helps control pests, disease**

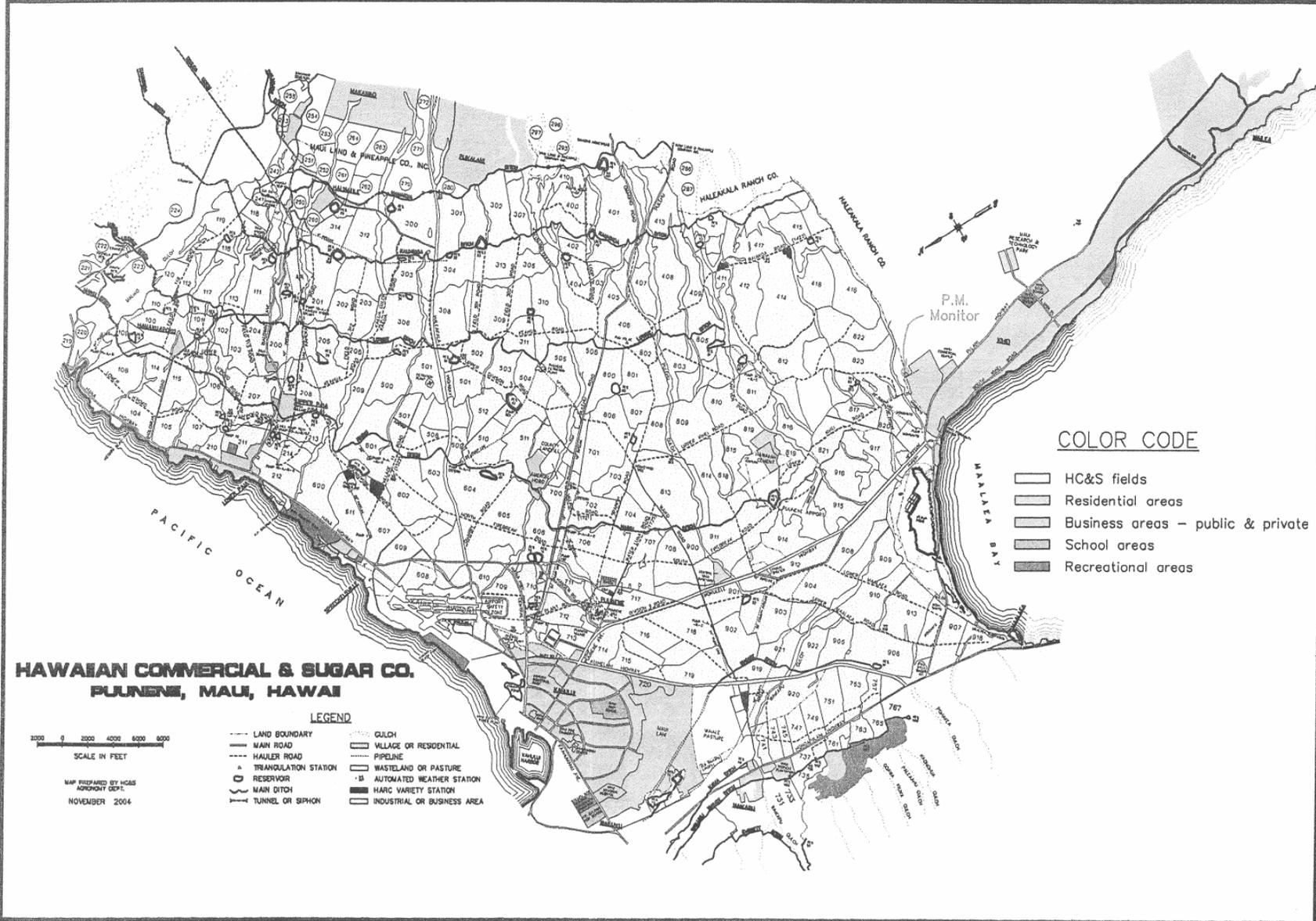
## **Agricultural Burning in Hawaii**

### **Burning of sugarcane:**

**At present, “green harvesting” of sugarcane is not economically feasible.**

## Air Quality Monitoring

- **PM monitor located in North Kihei (immediately downwind of HC&S cane fields)**
- **Originally sited in 1996 as a special  $PM_{10}$  station for sugarcane burning**
- **SLAMS monitor for  $PM_{2.5}$**



**HAWAIIAN COMMERCIAL & SUGAR CO.  
PŪNĒNE, MAUI, HAWAII**

0 2000 4000 6000 8000  
SCALE IN FEET

MAP PREPARED BY HC&S  
AEROSPACE DEPT.  
NOVEMBER 2004

- LEGEND**
- LAND BOUNDARY
  - == MAIN ROAD
  - - - HAULER ROAD
  - TRANSLATION STATION
  - RESERVOIR
  - MAIN DITCH
  - - - TUNNEL OR SIPHON
  - ⋯ GULCH
  - VILLAGE OR RESIDENTIAL
  - ▭ PIPELINE
  - ▭ WASTELAND OR PASTURE
  - ⊙ AUTOMATED WEATHER STATION
  - HARC VARIETY STATION
  - INDUSTRIAL OR BUSINESS AREA

**COLOR CODE**

- HC&S fields
- Residential areas
- Business areas – public & private
- School areas
- Recreational areas

## Air Quality Monitoring

### Kihei PM Data (2000-2004)

**PM<sub>10</sub> Annual Mean: 19-25  $\mu\text{g}/\text{m}^3$**

**PM<sub>10</sub> Highest 24-hour: 65-95  $\mu\text{g}/\text{m}^3$**

**PM<sub>2.5</sub> Annual Mean: 5-6  $\mu\text{g}/\text{m}^3$**

**PM<sub>2.5</sub> Highest 24-hour: 10-25  $\mu\text{g}/\text{m}^3$**

(PM<sub>2.5</sub> data for 2002-2004)

## **Agricultural Burning in Hawaii**

**Open burning is prohibited  
without a permit  
(with limited exemptions).**

## **Agricultural Burning in Hawaii**

- **Permits are issued annually by Department of Health Clean Air Branch**
- **Fees based on acres to be burned**
- **Enforcement by DOH**

Figure 6-1  $PM_{10}$  Annual Average 2000 - 2004

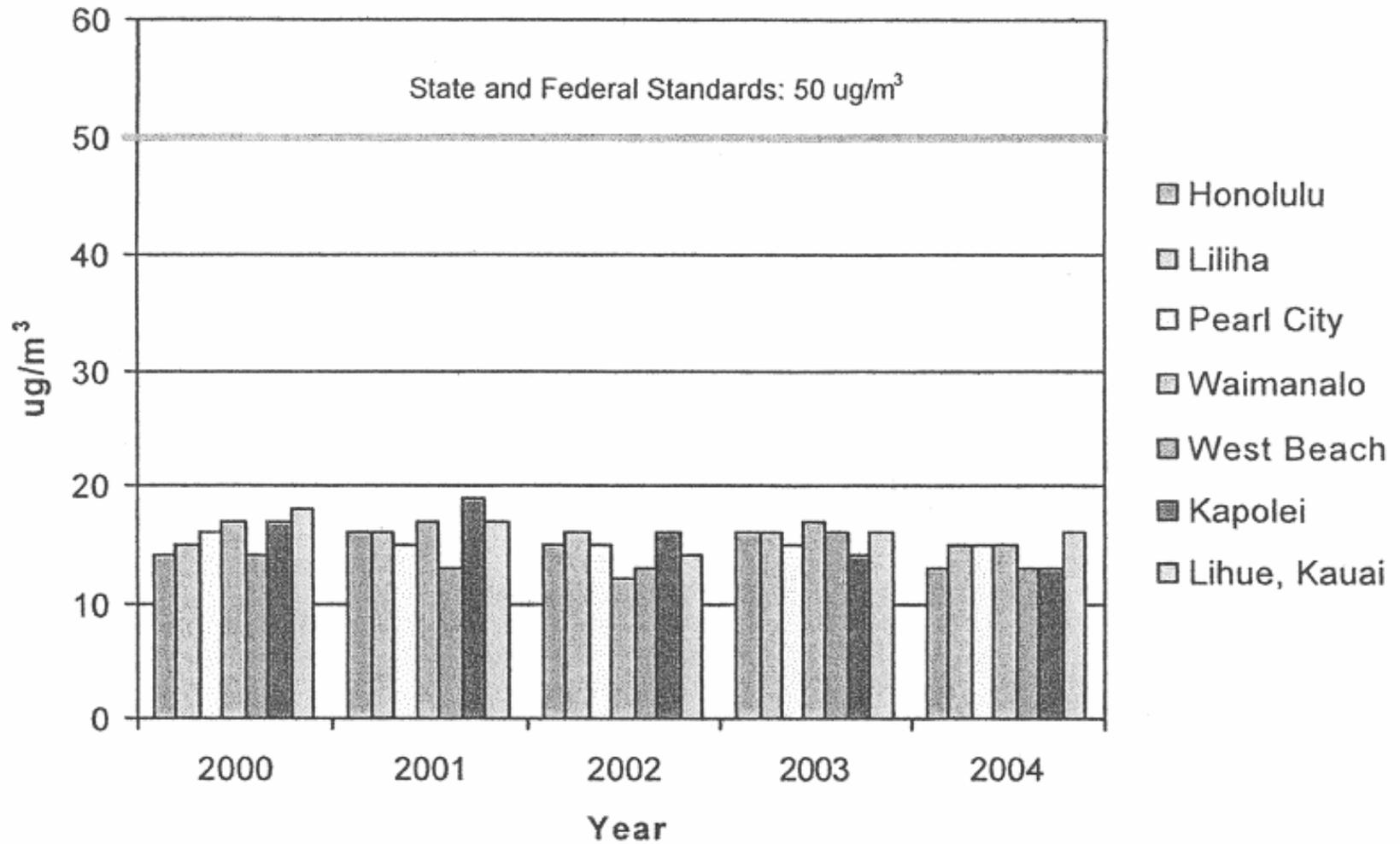
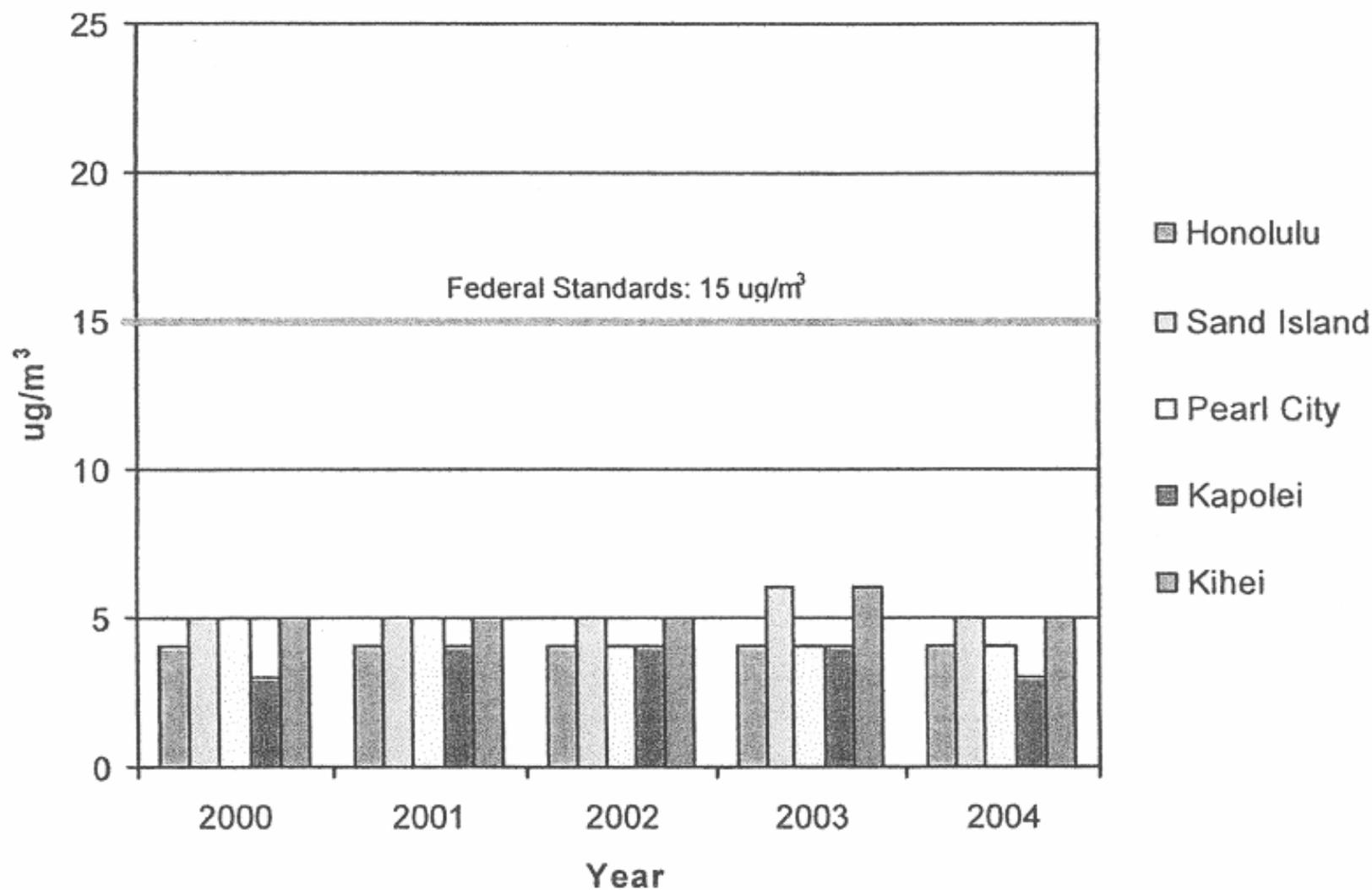


Figure 6-2  $PM_{2.5}$  Annual Average 2000 - 2004



## **Agricultural Burning Permits**

**Standard Conditions specified  
for “small-scale” burners**

## **Agricultural Burning Permits**

**More extensive requirements,  
Special Conditions for larger  
burners due to greater potential  
for smoke impacts.**



PERMIT NO. AGP - 4201P  
EXPIRATION DATE: 2/12/2006

STATE OF HAWAII  
DEPARTMENT OF HEALTH  
**AGRICULTURAL BURNING PERMIT**  
IS HEREBY ISSUED TO

**Hawaiian Commercial & Sugar Company**

(NAME)

**Various Sugarcane Fields As Indicated on Current Map, Maui**

(BURN LOCATION)

Subject to Hawaii Revised Statutes (HRS), Chapter 342B; Hawaii Administrative Rules (HAR), Chapter 11-60.1; and all the following general conditions unless modified or replaced by any attached special conditions:

1. On Oahu, permittee shall notify the Fire Alarm Bureau ((808) 523-4411) prior to each burn; for Maui County, permittee shall notify the Police Central Dispatch ((808) 224-6400) and the nearest fire station (in the phone book) prior to each burn; and for all other islands, permittee shall notify the nearest fire station (in the phone book) prior to each burn.
2. **BURNING IS NOT allowed during a "no-burn" period** declared by the Department of Health under §11-60.1-55, HAR.
3. **No burning of logs, tree stumps, tree limbs, branches or any agricultural debris greater than 4" in diameter.**
4. A water source able to extinguish the fire must be provided to the area during each burn. Fire shall be attended by an adult until **completely extinguished**, including any smoldering.
5. Only controllable amounts shall be burned and under conditions that will minimize visible smoke from entering any nearby building, public road, highway, beach, or any area to which the public has unrestricted access.
6. If visible smoke enters any building, public road, highway, beach, or any area to which the public has unrestricted access, permittee shall take best practical measures to eliminate smoke, including extinguishing the fire.
7. Burning shall not start until 6:00 a.m. and shall be **completely extinguished**, including any emission of smoke by 6:00 p.m.
8. **No burning of trash, paper bags, cardboard, plastics, lumber, garbage, tires, or any waste not generated from crop cultivation at burn location.** No burning of agricultural wastes that are not generated from burn location.
9. Each permittee is required to monitor and maintain records on the attached Agricultural Burning Permit Monitor/Record Sheet. Upon request, the permittee shall furnish copies of required records to the Department of Health.
10. A copy of this permit shall be available at burn site during burn.
11. The Department reserves the right to terminate, suspend, reopen, or amend this permit, subject to Hawaii Administrative Rules, Section 11-60.1-57(d).

**VIOLATION OF ANY CONDITION OF THIS PERMIT, ANY SECTION OF CHAPTER 342B, HRS, OR ANY SECTION OF CHAPTER 11-60.1 HAR, MAY RESULT IN FINES NO GREATER THAN \$10,000.00 FOR EACH DAY OF EACH VIOLATION, PURSUANT TO § 342B-47(b), HRS. IN ADDITION, A VIOLATION MAY BE REASON FOR AMENDMENT, SUSPENSION, OR REVOCATION OF THIS PERMIT.**

BY:

  
DIRECTOR OF HEALTH

**SPECIAL CONDITIONS**  
**AGP NO. 4201P**

The special conditions may modify or replace the general conditions of this permit. In the event of conflict, the special conditions shall take precedence over the above general conditions.

1. General condition 3 shall be replaced with the following special condition: Permittee shall not burn logs greater than 4" in diameter unless such logs are sporadically found in fields. Permittee shall provide an adequate water source to the Burn Location which will prevent the fire from spreading to areas adjacent to Burn Location.
  2. General condition 4 shall be replaced with the following special condition: Fire shall be attended or supervised by an adult in accordance with Exhibit 1 which is attached hereto and incorporated herein.
  3. General condition 5 shall be modified by the following special condition: With respect to fields 104, 107, 114, 204, 208, 210, 211, 212, 303, 306, 308, 401, 405, 406, 407, 410, 413, 500, 501, 506, 507, 509, 600, 602, 605, 606, 609, 610, 611, 700, 701, 702, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 735, 737, 741, 743, 745, 747, 749, 751, 753, 757, 761, 763, 765, 800, 813, 815, 819, 901, 905, 906, 907, 908, 910, 911, 912, 914, 918, 919, and 920; permittee shall burn in accordance with Exhibit 2 which is attached hereto and incorporated herein.
  4. General condition 6 shall be replaced with the following condition: Except with respect to those fields listed under Special Condition 12, if a burn has begun and the public is exposed to visible smoke in any area, permittee shall not burn any additional fields that would affect such impacted area until meteorological conditions improve.
  5. General condition 7 shall be replaced with the following special condition: The following fields, as indicated in the 2005 Harvesting Schedule and map submitted by the permittee, shall be burned in accordance with the schedule below:
    - a. The following fields may be burned during the hours of 3:00 a.m. to 6:00 a.m.: 605, 606, 609, 610, 709, 710, 711, 712, 713, 714, and 715.
    - b. The following fields may be burned during the hours of 4:00 a.m. to 8:00 a.m.: 410
    - c. The following field may be burned during the hours of 8:30 a.m. to 10:00 a.m.: 906 (other than Kona winds).
    - d. The following field may be burned during the hours of 8:30 a.m. to 3:30 p.m.: 906 (Kona winds).
    - e. The following fields may be burned during the hours of 4:00 a.m. to 6:00 p.m., excluding peak traffic hours of 0700-0830 and 1530-1700: 104, 107, 114, 204, 208, 212, 303, 306, 308, 401, 405, 406, 407, 413, 500, 501, 506, 507, 509, 600, 602, 611, 700, 701, 702, 707, 708, 716, 717, 718, 719, 735, 737, 741, 743, 745, 747, 749, 751, 753, 761, 763, 765, 800, 901, 908, 911, 912, 914, 919, 920, 921, and 922.
    - f. The following field may be burned during the hours of 4:00 a.m. to 6:00 p.m.: 813, 815, 819, and 910.
    - g. The following fields may be burned during the hours of 6:00 a.m. to 6:00 p.m., excluding peak traffic hours of 0700-0830 and 1530-1700: 210, 211, and 918.
- All other fields, as indicated in the 2005 Harvesting Schedule, map, and additional field list submitted by the permittee, shall be burned after 6:00 a.m. and all flames shall be extinguished and smoke emissions minimized by 6:00 p.m.
6. General condition 8 shall be replaced with the following special condition: An inspection shall be conducted on all accessible areas of each field prior to burning. Any batteries, abandoned vehicles, wastes handled or processed by sugar factory operations, tires, petroleum wastes, appliances, furniture, hazardous wastes, 55 gallon drums and other similar items which may have been deposited in the burn area and identified by the inspection shall be removed prior to any burn.
  7. Permittee shall monitor all burns and maintain a record of the meteorological conditions and plume behavior throughout each burn.
  8. The Department reserves the right to terminate, suspend, reopen, or amend this permit, subject to Hawaii Administrative Rules, Section 11-60.1-57(d).

**Agricultural Burning Permit  
“NO BURN”**

**Burning is prohibited during any  
“No Burn” period declared by  
DOH.**

## **Agricultural Burning Permit “NO BURN”**

**By rule, “No Burn” periods are based on observation of “widespread haze” when weather conditions contributing to haze are likely to continue or deteriorate.**

**On Oahu, “No Burn” periods can also be based on CO, PM<sub>10</sub> monitoring.**

## **Agricultural Burning Permit “NO BURN”**

**“No Burn” conditions may result from:**

- “Kona” winds**
- Vog**
- Light winds**
- Inversions**
- High surf (salt spray)**

**“No Burn” lasts until noon the following day unless called off sooner or extended.**

## **Agricultural Burning Permit**

**“Special Conditions” require  
written Burn Procedures**

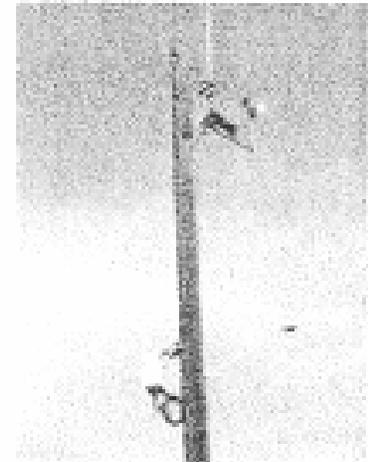
**(Exhibit 1)**

- Pre-burn**
- During burn**
- Post-burn**

# Agricultural Burning Permit

## Pre-Burn

- **Assess field location, sensitive downwind areas**
- **Assess meteorological data**
  - **Review current data**
  - **Review burn forecast**
  - **Review past burns for likely plume behavior**





# Agricultural Burning Permit

## Pre-Burn

### Public Notifications

- Written notices, flyers
- Cane burn “call lists”
- Road signs
- Fire Department
- “Hot line”



## **Agricultural Burning Permit**

### **Pre-Burn**

#### **Observe Burn Time Restrictions**

- **Highways**
- **Recreation areas**
- **Schools/churches**
- **Airport**

**Western Weather group**  
**HC & S Maui Weather & Dispersion forecast**  
**Monday, October 03, 2005**

customerweb.westernwx.com/hcs

530-342-1700

email:tom@westernwx.com

**TODAY:** High clouds passing this morning. Moderate trades with isolated windward showers this afternoon.  
**TONIGHT:** Some windward cloudiness and isolated showers. Mostly clear leeward. Trades easing some overnight.  
**TOMORROW:** Well organized trade winds with some windward cloudiness and isolated showers.

**SHORT TERM DISCUSSION:** A weak upper-level disturbance north of the state which helped disrupt the trade flow some over the weekend, is drifting slowly westward and is forecast to weaken a little today. This should allow the trades to become better organized today, and probably be a little more vigorous – especially by this afternoon. There is a band of high clouds drifting eastward over Eastern Maui this morning. It should be out of the way by mid-morning or so. The surface ridge north of the islands responsible for the trade winds is forecast to remain nearly stationary through the remainder of the week. Moderate trades are thus the forecast, with perhaps a peaking of the winds on Wed/Thu when the upper-level flow shift from southerly to easterly giving them a little boost. We could see an increase in the trade showers at that time as well. Lighter trades are forecast by Sunday and into the early part of next week.

|               | <b>WINDS</b>         | <b>Dispersion</b> | <b>EMI Precip</b> |
|---------------|----------------------|-------------------|-------------------|
| <b>Today:</b> | ENE trades 10-25 mph | Very Good         | Light             |
| <b>Tue:</b>   | ENE trades 10-25 mph | Very Good         | Light             |
| <b>Wed:</b>   | ENE trades 15-30 mph | Very Good         | Light/Mod         |

|             | <b>Extended Outlook</b>                           | <b>Precipitation</b> |
|-------------|---|----------------------|
| <b>Thu:</b> | Moderate/strong trades, windward/mauka showers    | Light/Mod            |
| <b>Fri:</b> | Moderate trades, windward/mauka showers           | Light/Mod            |
| <b>Sat:</b> | Moderate trades, windward/mauka showers           | Light                |
| <b>Sun:</b> | Light/Moderate trades, few windward/mauka showers | None/Light           |
| <b>Mon:</b> | Light/Moderate trades, few windward/mauka showers | None/Light           |
| <b>Tue:</b> | Light/Moderate trades, few windward/mauka showers | None/Light           |

| zone    | <b>Today's Rainfall Forecast</b> |          | <b>Transport Winds</b> |        | <b>3AM Plantation Stability</b> |          |       |
|---------|----------------------------------|----------|------------------------|--------|---------------------------------|----------|-------|
|         | 4am-Noon                         | noon-8pm | Lihue at 2AM           |        | today                           | Sun 10/2 |       |
| Paia    | Tr -.01                          | Tr -.05  | 1000FT                 | E 11   | temp difference                 | %F       | %F    |
| Mauka   | Tr -.01                          | Tr -.01  | 2000FT                 | E 11   | 813 → 401                       | 1.8      | 0.5   |
| Kahului | None                             | Trace    | 3000FT                 | ENE 10 | 813 → KAP                       | -0.7     | -1.0  |
| Maalaea | None                             | None     | 4000FT                 | NE 10  | 813 → POL                       | -11.6    | -16.4 |
| Kihei   | None                             | None     | 5000FT                 | ENE 9  |                                 |          |       |

**PRECIPITATION NOTES:** Little if any precip expected this morning. Could see a light windward shower or two develop this afternoon. Good drying over the weekend, so fields should be sufficiently dry to burn.

**BURNING & CAUTIONARY NOTES:** Early burns suggested in F104 and F114 this morning with ENE'erly trades already reasonably well established (10-15 mph). They may weaken slightly around sunrise, but look for them to strengthen 10-20 mph by 8-9am and 15-25 mph by later this morning which would cause fumigation concerns if burning delayed. Light drainage flow is present early this morning across F406, with a +1.8 degree inversion from the valley floor up to Omaopio. This suggests possible sluggish plume lift and smoke drift out cross the valley. Better to delay burning in F406 until later this morning (9-11am) when the atmosphere is unstable (for better plume lift) and winds shift upslope.

FORECASTER: Walsh

# Agricultural Burning Permit

## Pre-Burn

**Conduct field inspections,  
remove unauthorized  
materials**



# Agricultural Burning Permit

## Pre-Burn

Prepare fire breaks to  
protect adjacent areas,  
PVC risers,  
power poles, etc.



# Agricultural Burning Permit

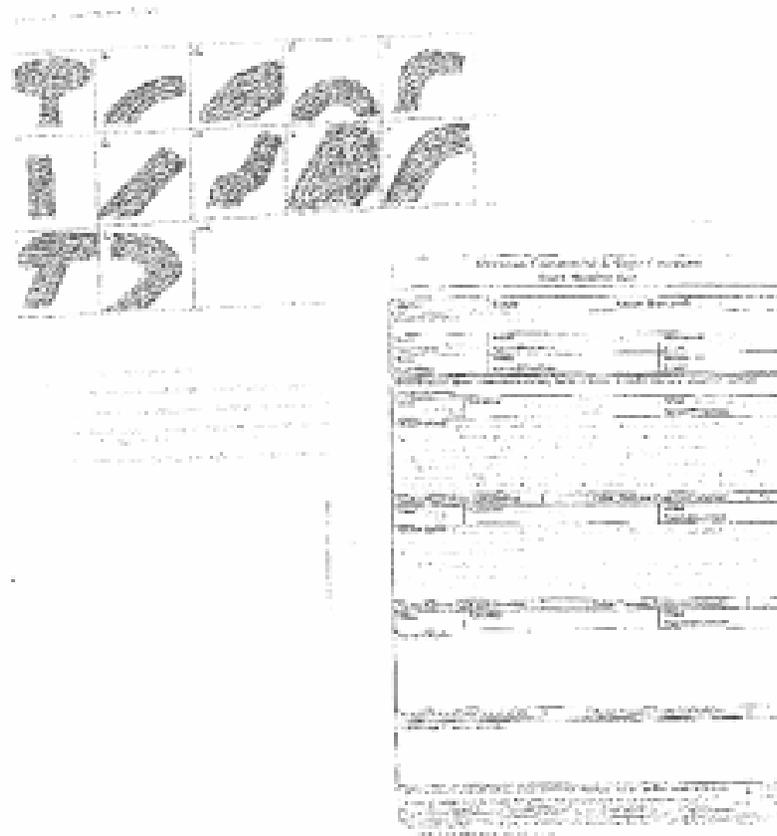
## Pre-Burn Complete Pre-Burn Checklist

| Minnesota Commercial & Segregated<br>Pre-Burn Checklist   |   |
|---|---|
| Field #   | Date  |
| <p>Major or burning, ready to burn, before is completed and before in two days previous<br/>                     Pre-Burn Checklist. Complete all items listed below. Check items that are not applicable (N/A) or not<br/>                     not required by the State Burn Regulations (using other fire laws/regs)</p> |   |
| <input type="checkbox"/>  | 1-11 Write address and location (county, township, and range) and location of burning site  |
| <input type="checkbox"/>  | 1-12 Write to burn  |
| <input type="checkbox"/>  | 1-13 Telephone notification made or intended to be made and type of fire to burn prior to<br>scheduled burn (check with local fire or county emergency)   |
| <input type="checkbox"/>  | 1-14 Type and quantity of materials to be burned  |
| <input type="checkbox"/>  | 1-15 Write emergency, road and fire access  |
| <input type="checkbox"/>  | 1-16 Write safety (windbreak and control) to be made and/or prior to burn   |
| <input type="checkbox"/>  | 1-17 Write description  |
| <input type="checkbox"/>  | 1-18 Burner only (not other Minnesota responsible parties) prior to burn. (N/A)<br>Description of burner has been verified with Bureau of Fire Control "No Burn" permit to allow<br>operation of burner for Minnesota residents. Manufacturer manual which lists proper use and<br>safety to burner (burner has been found growing in the field and any fences, structures, towers, or<br>other nearby items) |
| <input type="checkbox"/>  | 1-19 Additional items to be burned have been provided for separate and individual burn tickets.<br>Any prohibited materials listed during the application burn, have been listed on the burn ticket.  |
| <p>Requirements on Burn Ticket</p> <p>All materials on this ticket (e.g., by telephone, electronic, subject) will be completed with<br/>                     completion of Minnesota Pre-Burn Checklist</p>   |   |
| <input type="checkbox"/>  | Weather data, including National Weather Service forecast, weather network, local emergency<br>and telephone numbers, 24-hour weather radio, and other local items received, completed and<br>clearly visible, where burner completed   |
| <input type="checkbox"/>  | Burning area (including immediate area) equipped to prevent visible smoke from entering<br>residential, commercial, or public areas   |
| <input type="checkbox"/>  | Weather conditions and direction of the wind (if any) known as of the day. Also record any significant<br>change in wind speed or direction during the burn   |
| <input type="checkbox"/>  | For the burn, will there any individuals (including anyone from the Ministry of Public Safety) be<br>present?   |
| <input type="checkbox"/>  | Change when burning Exhibit 1 lists, visible smoke in public areas means not burning in the<br>area shall be discontinued or not recommended (provide location)   |
| <p>For Exhibit 1, Fields Only</p> <p>1-20 Field # (burner on the day) or other number of field (attach copy of map of field)</p>  |   |
| Burn Start Time   | Burn End Time   |

For more forms, please call phone in Burnings, the Minnesota Commercial, Exhibit 1 Burn  
 Permits and Segregated Pre-Burn Checklist, and Burn Regulation Log.

# Agricultural Burning Permit

**During Burn**  
**Complete**  
**Burn Monitor**  
**Log, monitor**  
**impacts to**  
**public areas**



|   |
|---|
| <b>Hawaiian Commercial &amp; Sugar Company<br/>Pre-Burn Checklist</b> |
|---|

|  |   |
|--|---|
| <b>Field:</b>  | <b>Date:</b>  |
| <b>Prior to burning, verify each item below is completed and initial in the space provided.</b>  |   |
| <b>Public Notifications:</b> Complete all notifications required by the Cane Burn Notification Listing (For items not required by the Cane Burn Notification Listing, enter NA in the box.)  |   |
|  | Written notices sent to nearby residents, churches, and schools, and businesses at least two days prior to burn.  |
|  | Telephone notifications made or attempted to designated call lists at least two hours prior to scheduled burn (check with Burn Monitor to verify completion).   |
|  | Signs and security guards/police posted on affected roadways.   |
|  | Maui Police Central Dispatch and nearest fire station notified prior to burn.   |
| <b>"No Burn" Declaration</b>   |   |
|  | Harvesting Superintendent contacted prior to burn. Verified Department of Health has not notified Harvesting Superintendent of a declared "No Burn" period in effect.   |
| <b>Inspection of Fields for Unauthorized Materials:</b> Unauthorized materials include logs greater than four inches in diameter (unless from plants found growing in the field) and any batteries, abandoned vehicles, factory wastes, tires, petroleum products, hazardous wastes, 55-gallon drums, appliances, furniture, or other similar items. |   |
|  | Accessible areas of field to be burned have been inspected for materials not authorized to be burned.   |
|  | Any unauthorized materials found during the inspection have been removed from the burn area.  |
|  | Farm Manager responsible for the field to be burned has confirmed that chlorine cylinders have been removed from all chlorinator sheds located in or within 50 feet of the burn area.   |
| <b>Restrictions on Burn Times</b>  |   |
|  | All restrictions on burn times (e.g., for highways, churches, schools, etc.) will be complied with.   |
| <b>Assessment of Meteorological Conditions</b>   |   |
|  | Weather data, including National Weather Service forecast, Weather Network smoke management and dispersion forecasts, HC&S weather station data, and past burn records reviewed, assessment of likely smoke plume behavior completed. |
|  | Existing meteorological conditions are anticipated to minimize visible smoke from entering residences, businesses, other public areas.  |
|  | Record wind speed and direction at the start of the burn on a field map. Also record any significant change in wind speed or direction during the burn.   |
| Yes  | For this burn, were there any indications (including reports from Burn Monitor) of visible smoke in public areas?   |
| No   | (Except when burning Exhibit 2 fields, visible smoke in public areas requires that burning in the area shall be discontinued until meteorological conditions improve.)  |
| <b>For Exhibit 2 Fields Only</b>   |   |
|  | All Exhibit 2 procedures for this field are being complied with (attach copy of completed checklist).   |
| <b>Burn Start Time:</b>  | <b>Burn End Time:</b>   |

For each burn, attach and place in harvesting files this Pre-Burn Checklist, Exhibit 2 Burn Procedures checklist (if applicable), burn map, and Burn Monitoring Log.

## **Agricultural Burning Permit**

### **Post-Burn**

- **Minimize smoke emissions from smoldering piles**
- **Check periodically for smoldering, flare-ups**
- **Clear fire-line cane, cane near sensitive areas first**

## **Agricultural Burning Permit**

**Burning must be done “in controllable amounts” and “under conditions that will minimize visible smoke” entering any area to which the public has unrestricted access.**



## **Agricultural Burning Permit**

### **“Exhibit 2” Fields Include:**

- Fields along major roadways**
- Fields that may impact the airport**
- Fields immediately adjacent to residences**
- Fields immediately adjacent to other public areas**

## **Agricultural Burning Permit**

**Limitations on “Exhibit 2” Fields may include:**

- Specific wind conditions for burning**
- Limitations on burn times**
- Notifications**
- “Green harvest” of portions of the field**
- Additional actions to minimize smoldering**

# **AAQTF Recommendations: Air Quality Policy on Agricultural Burning**

## **TIER 2 SMOKE MANAGEMENT PROGRAM**

**Voluntary program for states where  
agricultural burning may cause or contribute  
to violations of NAAQS or visibility  
impairment in Class 1 areas**

## **HAWAII**

- ✓ Mandatory program**
- ✓ No NAAQS violations**
- ✓ Visibility monitoring in progress, monitor  
siting/vog concerns**

# **AAQTF Recommendations: Air Quality Policy on Agricultural Burning**

## **TIER 2 SMOKE MANAGEMENT PROGRAM**

**Include a process for authorizing burns  
and “No Burn” decisions**

## **HAWAII**

- ✓ Burn permits required**
- ✓ Rules for “No Burn” decisions**

# **AAQTF Recommendations: Air Quality Policy on Agricultural Burning**

## **TIER 2 SMOKE MANAGEMENT PROGRAM**

**Encourage alternatives to burning,  
identify burning methods to minimize  
emissions**

### **HAWAII**

- ✓ Burn alternatives provided with permit**
- ✓ Burn procedures to minimize emissions  
outlined in permit**

## **AAQTF Recommendations: Air Quality Policy on Agricultural Burning**

### **TIER 2 SMOKE MANAGEMENT PROGRAM**

**Identify sensitive receptors, notification requirements, burn schedules/locations, safety and contingency plans**

### **HAWAII**

- ✓ Burn schedules, field maps included in permit applications**
- ✓ Notification procedures, safety, and contingency plans included in permits**

# **AAQTF Recommendations: Air Quality Policy on Agricultural Burning**

## **TIER 2 SMOKE MANAGEMENT PROGRAM**

**Public education and awareness**

### **HAWAII**

**✓ Public outreach through tours, cane  
burning hotline**

# **AAQTF Recommendations: Air Quality Policy on Agricultural Burning**

## **TIER 2 SMOKE MANAGEMENT PROGRAM**

**Surveillance and enforcement**

### **HAWAII**

- ✓ **Open burning regulations enforced by  
Department of Health Clean Air Branch**
- ✓ **Field citation program**

# **AAQTF Recommendations: Air Quality Policy on Agricultural Burning**

## **TIER 2 SMOKE MANAGEMENT PROGRAM**

### **Program evaluation**

#### **HAWAII**

- ✓ Annual meetings between permittees and DOH to evaluate previous year**
- ✓ Internal evaluation, procedures revised as needed**