



Santa Barbara County
Air Pollution Control District

FINAL

**Air Toxics "Hot Spots"
Information and Assessment Act of 1987**

Public Notification Procedures

June, 1993

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I. INTRODUCTION

The Air Toxics "Hot Spots" Program was enacted by state law (AB 2588) in 1987. The purpose of this law is to provide the public with information about routine emissions and potential health impacts of toxic pollutants released to the air by facilities. Simply stated, toxic air pollutants are chemicals which may cause adverse health effects such as cancer, birth defects, lung disease, and eye irritation to exposed individuals. Recently this purpose was expanded by an amendment to the Act that requires businesses to implement risk reduction measures within five years upon determination that their emissions pose a significant risk to the exposed public.

Any business that emits toxics into the air is subject to the Hot Spots Law. In Santa Barbara County, there are approximately 700 facilities that are required to comply with this law. Facilities as diverse as refineries, chrome platers, medical device manufacturers, auto-body shops, and gas stations are required to provide information. For small businesses, which make up a vast majority of the facilities subject to the law, the Air Pollution Control District (APCD) provides assistance by performing many of the required steps for the facilities as a group.

The law is implemented in a three phase, five step approach. Each phase is based on the amount of criteria pollutants emitted by the facility. Facilities are categorized into three separate phases by the amount of criteria pollutants they emit annually (criteria pollutants are oxides of nitrogen and sulfur, ozone, particulate matter, carbon monoxide and lead). Phase I, the category with the largest emitters are subject to the law first followed by Phase II and Phase III facilities. Each facility in turn must go through the following steps:

- Each facility prepares an Emission Inventory Plan which describes how they will quantify the amount of air toxics they emit into the air. This is essentially a "cookbook" of how the inventory will be accomplished.
- Each facility prepares the actual Emission Inventory Report which details how much is emitted from their business.
- After careful review and approval of the plans and reports, the APCD then prioritizes each facility in terms of their potential risk to the public.
- Facilities with a high or intermediate priority screening are then required to perform a health risk assessment. The risk assessment is generated by computer modeling of potential public exposure using actual data contained in the facility Emission Inventory Report.
- The facilities that pose a significant risk to the public (based on computer modeling and risk isopleth projections) are required to

notify potentially exposed individuals.

- Facilities are required to implement risk reduction measures within 5 years of designation as significant risk source by the APCD.

Public notification of the risk attributable to toxic air emissions from facilities is the most sensitive step in the Hot Spots Program process. Quantification of risk involves many complex assumptions, usually overstates individual exposure and adverse health effects, and can be a highly technical, emotionally charged topic. It is for these reasons that the APCD has developed these notification procedures with input from the public and affected industry. In addition, the procedures strictly adhere to state public notification guidelines.

II. QUESTIONS AND ANSWERS ABOUT THE "HOT SPOTS" NOTIFICATION PROCEDURES

A. WHAT IS THE GOAL OF NOTIFICATION UNDER THE "HOT SPOTS" PROGRAM?

The primary goal of notification under the Air Toxics "Hot Spots" Program is to inform potentially exposed individuals of significant health risks associated with toxic air emissions routinely released from facilities in Santa Barbara County. An important component of notification is the establishment of effective lines of communication between the APCD, affected businesses, and the public. Notification under the Air Toxics "Hot Spots" Program also provides the APCD and facilities with the opportunity to communicate past, present, and planned future activities aimed at reducing the public's exposure to air toxics.

B. WHAT IS THE PURPOSE OF THE PROCEDURES?

The purpose of the Public Notification Procedures is to provide businesses that emit toxic air substances (that may cause a significant health risk) with a framework for notification of potentially exposed individuals. The Public Notification Procedures are intended to provide businesses with a clear and equitable process for notifying the public under the Air Toxics "Hot Spots" Program. Emphasis is given to providing specific notification procedures including the determination of notification trigger levels, guidance on notification materials and suggestions for presenting such information.

C. WHAT ARE THE REQUIREMENTS FOR PUBLIC NOTIFICATION?

The Air Toxics "Hot Spots" Act requires businesses meeting certain criteria to prepare and submit health risk assessments to the APCD. The risk assessment must be reviewed by the APCD and the state Office of Environmental Health Hazard Assessment (OEHHA). The APCD, taking into account the OEHHA's comments, is to return the risk assessment to the facility for revisions and resubmittal (if necessary). The APCD is to approve the risk assessment within 180 days of receipt from the OEHHA.

If, based on the approved health risk assessment, it is determined that potentially significant health risks are associated with emissions from the facility, the facility operator must notify all individuals who may be exposed in accordance with procedures specified by the APCD (Health and Safety Code section 44362(b)). The Law also specifies that if a notice is required, the notice shall include only information concerning significant health risks attributable to the specific facility for which the notice is required.

D. WHAT IS THE APCD's ROLE IN NOTIFICATION?

The APCD's role in notification is to: 1) establish notification procedures that facilities are required to follow; 2) specify the criteria for triggering notification; 3) based on review of the approved health risk assessment, identify which facilities have to notify exposed individuals; and 4) ensure that notifications are consistent with the APCD's procedures and occur within a timely manner.

E. HOW WERE THE NOTIFICATION PROCEDURES DEVELOPED?

The Public Notification Procedures are based on public notification guidelines developed by the state. These guidelines provide options, suggestions and recommendations for public notification and risk communication.

Consistent with the state guidelines, the Public Notification Procedures for Santa Barbara County were developed by the APCD with assistance from the public. An ad hoc Public Notification Committee, comprised of representatives from industry, environmental and health organizations, and citizens groups was formed to assist the APCD on the development and review of the notification procedures. In addition, public workshops were held to allow for further public review and comment on these procedures.

F. WHY DO THE PROCEDURES RECOMMEND LETTERS AND PUBLIC MEETINGS?

The APCD notification procedures primarily rely on letters sent to individual residences and recommends that interest in a public meeting be assessed. We understood that there are other approaches to notification, however, we believe that sending letters to individual residences and workplaces in the impacted area is the most effective approach for informing those that are exposed.

The Public Notification Procedures emphasize the merit of public meetings after letters have been distributed. In many instances, the notices may lead to questions by the public that must be addressed. One approach for addressing the public's questions and concerns is to have informed APCD and facility contact people available for questions. In addition to APCD and facility contacts, a public meeting can be an excellent forum to address the public's questions that may not be answered in the letter. A public meeting also provides an opportunity for facility and possibly APCD representatives to present the risk assessment results in more detail as well as discuss activities related to reducing emissions of toxic substances.

G. WHAT IS A "SIGNIFICANT" HEALTH RISK?

The Hot Spots Act requires that:

"Upon approval of the health risk assessment, the operator of the facility shall provide notice to all exposed individuals regarding the results of the health risk assessment prepared pursuant to [this Act] if, in the judgement of the district, the health risk assessment indicates there is a significant health risk associated with emissions from the facility."

The Hot Spots Act does not provide a definition for "significant risk" and specifies that the APCD make this determination. In determining the significant risk level, the APCD considered input from the Public Notification Committee, state guidelines, and comments received the public as a result of public notification procedure workshops.

For the purposes of notification, a significant health risk has been determined to be the level at which the public shall be informed of potential adverse health impacts resulting from exposure to toxic air contaminants. This approach is consistent with the "right-to-know" intent of the legislation, but does not necessarily imply that there is an imminent or substantial endangerment to public health.

H. WHAT ARE THE SIGNIFICANCE LEVELS THAT REQUIRE NOTIFICATION AND HOW WERE THEY DEVELOPED?

If, according to the risk assessment, it is determined that the public is potentially exposed to a risk equal to or greater than 10 excess cancer cases in a population of one million, the facility causing this potential risk will be required to notify the public. For noncancer health risk, businesses that potentially expose the public to a Hazard Index greater than one (1.0) may be required to notify depending on the substance(s) and further guidance from state health experts.

These notification trigger levels were developed by the APCD, taking into consideration the recommendations of the Public Notification Committee, input from public workshops, and the state guidelines. In addition, the levels are consistent with notification thresholds adopted by certain other APCD's throughout the state and Proposition 65 reporting requirements.

I. WILL COMPLYING WITH THE PROCEDURES SATISFY THE WARNING REQUIREMENTS UNDER PROPOSITION 65?

Not necessarily. Where possible, the Public Notification Procedures attempt to satisfy the warning requirements of the Safe Drinking Water and Toxic Enforcement Act of 1986 (Health and Safety Code section 25249.5 et. seq.) which was originally adopted as Proposition 65. A facility operator should not assume that compliance with Air Toxics "Hot Spots" Program notifications satisfies Proposition 65 warning requirements. For example,

the notice distribution frequency recommended in the Public Notification Procedures does not comply with Proposition 65 requirements. In addition, the provisions in the Public Notification Procedures for industry-wide notifications letter may not comply with Proposition 65 requirements.

If facility operators want to ensure that Proposition 65 warning requirements are being complied with, they should contact the OEHHA at (916) 445-6900 for guidance.

J. WHAT ARE THE WARNING REQUIREMENTS UNDER PROPOSITION 65 AS RELATED TO AIR EMISSIONS AND HOW DO THEY DIFFER FROM THE AIR TOXICS "HOT SPOTS" REQUIREMENTS?

Airborne emissions of specified toxic substances are subject to the Proposition 65 warning requirements. The statute requires that a "clear and reasonable" warning be provided before an individual is exposed to a chemical which has been listed as known to the State to cause cancer or reproductive toxicity unless the resulting exposure meets the criteria described below.

For carcinogens, a warning is not required if the exposure results in "no significant risk" (i.e., the exposure is calculated to result in not more than one excess cancer case in 100,000 individuals exposed over a 70 year lifetime). For Proposition 65, the warning requirement is based on the carcinogenic risk associated with individual substances (i.e., the risk associated with multiple carcinogenic substances released by a given facility are not added). In contrast, notifications under the Air Toxics "Hot Spots" Program are based on the additive carcinogenic risk for all substances emitted by a given facility. Furthermore, the levels of risk or exposure triggering notification under the Air Toxics "Hot Spots" Program are established by the APCD. For Santa Barbara County the notification trigger level has been established as an exposure to a potential risk of 10 or greater excess cancer cases in one million.

For reproductive toxicants, Proposition 65 provides an exemption from the warning requirement if the exposure will not have an observable effect applying a safety factor of 1000. The acceptable exposure levels developed for the Air Toxics "Hot Spots" Program may differ from the acceptable levels specified under Proposition 65. The basis for such a difference may be related to the 1000-fold safety factor required to be applied under Proposition 65 or the toxicological endpoint used to derive the acceptable level. Guidance for determining whether an exposure meets the criteria specified under Proposition 65 is provided in Title 22, section 12701 through 12821 of the California Code of Regulations.

Proposition 65 includes provisions prohibiting the discharge of listed chemicals into sources of drinking water, as well as specifying governmental employee reporting requirements. However, these requirements are beyond the scope of these guidelines. For more information on Proposition 65 requirements, it is recommended that the OEHHA be contacted at the number provided above.

III. PUBLIC NOTIFICATION PROCEDURES

The notification method presented in these procedures primarily relies on letters (sent to individual residences and workplaces) and public meetings to inform the public of Air Toxics "Hot Spots" risk assessment results where those risks exceed the APCD's notification threshold. The advantage of this notification procedure is that it: 1) simplifies the notification process by establishing only one notification threshold for carcinogens; and 2) specifies one consistent format for all notifications.

The purpose of the notification letter is to explain the carcinogenic and/or noncancer health risk which may be associated with the facility's emissions based on the APCD approved health risk assessment. The letter is prepared by the APCD, placed on APCD letterhead, and made available to the facility operator for printing and distribution. The APCD will provide the facility with APCD envelopes to be used to distribute the notification materials. The envelope shall include an indicator of its contents (e.g., bold print stating, **Public Notice: Exposure to Toxic Air Pollutants**).

This procedure also provides facilities with the opportunity to describe their operation as well as the risk assessment results. Facilities may wish to describe the risk assessment results in their own words and include this in the notification package after review and approval by the APCD.

As shown in Figure 1, the primary steps in the notification procedure are: 1) the APCD determines if the estimated risks in the approved health risk assessment exceed the significance level(s) for carcinogenic and/or noncancer health effects; 2) based on risk isopleths (contours) generated from the risk assessments, the APCD informs all facilities with risks at or above the significance level(s) of the requirement for public notification; 3) the APCD prepares the notification letter for facilities with risks that exceed the significance level(s); 4) the facility prepares a notification letter in their own words which is submitted to the APCD for review and approval; 5) the facility identifies letter recipients and mails out the APCD-reviewed notification package; and 6) based on public interest, the APCD determines, in consultation with the facility, if a public meeting is necessary.

A. NOTIFICATION THRESHOLD

The APCD, with public and industry input, has established the carcinogenic and noncancer health risk notification thresholds. For this purpose, an exposure to a potential risk of ten or greater excess cancer cases in a million (10 in 1,000,000) is the notification threshold for carcinogens. Many oral and written comments received have suggested that 10 in one million is an appropriate carcinogenic notification threshold. This level of risk (i.e., 10 in one million) also corresponds to the warning level required under Proposition 65 (facility reporting requirements for individual substances).

For noncancer health risk, a hazard index (HI) or total hazard index (THI) of greater than one (1.0) prompts the APCD to consider requiring public notification. The OEHHA has specified that an HI or THI of one or less is not likely to result in adverse health effects in the population including sensitive individuals. However, for an HI or THI greater than one, there is a greater potential that adverse health effects may result depending upon the substance(s) in question. The APCD will consult with the OEHHA on a case-by-case basis when determining if notification is appropriate for noncancer health effects.

For estimated cancer as well as noncancer health risks, the health guidance values (unit risk factors and acceptable exposure levels) recommended for use by the OEHHA are intended to protect sensitive individuals in the population.

B. THE APCD NOTIFICATION LETTER

This section describes the format and content of the APCD's notification letter that facilities will distribute to those within the area defined by the notification threshold.

1. Purpose of the letter

The goal of the APCD notification letter is to inform the public of possible health risks associated with a specific facility's emissions and it answers basic questions such as:

- 1) why the notice was sent;
- 2) the identity and location of the facility emitting the substance(s);
- 3) the substance(s) emitted and, if appropriate, what the substance is used for;
- 4) the risk associated with exposure;
- 5) general assumptions used to estimate the risk;
- 6) steps being taken to reduce the risk (when applicable); and
- 7) how to get more information.

In addition, information is provided in the letter which helps to put the reported risks into perspective.

2. Format of the letter

The APCD notification letter is organized in such a way that it can be easily understood. The notice consists of brief paragraphs placed on standard letter-size (8 1/2 by 11 inches) paper. The type size will not be smaller than 12 pitch. The letter is not to be longer than two pages.

Other issues that should be addressed include the language(s) of those receiving the notice. It may be necessary to develop notices in other languages for non-English speaking communities. The notice will include instructions to schools and places of work to post the notice in an area(s) where it is likely to be observed by employees and/or students.

3. Components of the letter

This section describes the various components of the APCD's letter. Figure 2 provides a sample notification letter for carcinogenic risk that incorporates the components presented in this section. Figure 3 is a similar sample notification letter, except that it is for noncancer

health risk. If the notification trigger for more than one effect (e.g., acute and chronic noncancer effects) is exceeded, the information is to be merged into one letter.

Purpose of the letter. The APCD letter begins with a clear statement as to why it has been sent. It specifies that the letter has been sent to notify the recipient of potential health risks resulting from emissions and exposure to toxic substances. The letter also states that state law requires facilities to provide information on routine emission of toxic substances and the risks associated with those emissions. The letter indicates approximately how many other homes and/or businesses received the letter (e.g., you are among approximately [number] residences or businesses receiving this notice).

Identify the facility. The letter identifies the facility by its full name and address. This ensures that the recipients know which facility is being discussed in the notification letter.

What substance(s) is emitted. The letter identifies what substances are emitted by the facility. Those substances which are responsible for the determination that the facility's emissions present a significant health risk will be identified. For example, if the facility is required to notify due only to its estimated carcinogenic risk, the notification letter need not discuss the emission and impact of substances with noncancer health effects. Conversely, if the facility is required to notify due only to its estimated noncancer health risk, the notification letter need not discuss the emission and impact of substances with carcinogenic health effects.

The APCD will also, whenever possible, include a statement as to why the substance(s) is emitted by the facility (e.g., it is used to degrease metal parts prior to plating). The APCD may also indicate if appropriate, that the facility is permitted and obeys all APCD air pollution control laws. The notifying facility operator may choose to provide more detail in their letter concerning their facility's operation.

The health risk assessment. The letter also specifies that the facility has prepared a health risk assessment as required by the APCD. In addition, the letter provides a brief statement which defines health risk assessment. The APCD will consider including a sentence that indicates emission reductions have taken place since the period on which the risk assessment is based if they have been documented to be permanent and enforceable.

The results of the health risk assessment are clearly presented in the letter. In the APCD letter, the results of the risk assessment are based on the standard methodology as presented in the California Air Pollution Control Officers Association (CAPCOA) Air Toxics "Hot Spots" Program Risk Assessment Guidelines (i.e., the results from an alternative risk assessment that the facility may have performed will not be included in the APCD letter).

For carcinogens, the letter shall specify the maximum carcinogenic risk where a receptor (e.g., home, business) is currently located. The risk will be expressed as the added chance of getting cancer (i.e., "emissions from the facility may increase the risk of cancer by 10

chances in a million"). The letter states that the estimated risk is based on health protective or cautious assumptions such as the assumption that the recipient stays at the same location for 70 years.

With the procedure described above, every recipient of the letter shall be notified of the overall maximum estimated risk. It is understood that this may lead to an over-estimate of risk for some recipients. However, a given facility may have several receptors associated with a risk of 100 in one million, others associated with 50 in one million, and still others associated with 20 in one million. This level of detail may be better relayed by the APCD contact person. The letter indicates that if the notice recipient is farther away from the facility, it is likely that their risk is lower.

Putting risks into perspective. The risk results in the letter are put into perspective by making an appropriate comparison without trivializing estimated risks. This perspective is used to simply illustrate that there are other risks that the public is subjected to, and that in some cases these risks may be considerable.

There are a multitude of inappropriate risk comparisons that are not included in the letter. Examples of inappropriate comparisons include comparing the risk assessment results to voluntary risks (e.g., smoking, diet, driving) and comparing the risk assessment results to the risk of natural disasters (e.g., earthquakes, tornadoes, floods). Including any of these comparisons in the letter is inappropriate and will not assist in putting the risks into perspective. Instead, such comparisons may compromise the credibility of the APCD and outrage the public.

As a general rule, the more similar the risks, the more likely that the comparison is appropriate. To put carcinogenic risks presented in the letter into perspective, carcinogenic risks from air toxic exposures at selected locations in Santa Barbara County are used for comparison. Comparisons using the estimated risks associated with outdoor air toxics, based on results at air monitoring stations located in downtown Santa Barbara, Santa Maria, Gaviota, and Lompoc are appropriate because: 1) exposures are involuntary; 2) exposures occur in the air (at least in part); 3) exposures are to toxic substances; and 4) the risk associated with measured air toxics can be used to illustrate the range of activities that adversely impact air quality. As part of estimating the risks associated with "background" or ambient air, the notification letter identifies other sources of air toxics that contribute to the measured levels in the outdoor air (e.g., automobiles, factories, consumer products).

It is important to note that toxics monitoring data are often not of sufficient quantity to characterize annual average concentrations. Therefore, the assumption that the ambient monitoring data can be used to represent longterm average concentrations may lead to over or under-estimates of the risk associated with ambient air.

What is being done. The APCD may include, when appropriate, a brief statement on its activities to reduce emissions of air toxics such as the development of rules, site inspections, promotion of the use of substitutes and waste minimization.

Contact person. The letter identifies an APCD contact person to answer any questions that people may have. Community interest in response to a given notification may be high and may result in numerous calls to the APCD. The APCD will make every effort respond to calls within the same day. If calls are not promptly returned, the effectiveness of the notification may be compromised.

4. Frequency of Notification

The APCD letter will be distributed to those potentially exposed on a biennial basis, corresponding with the biennial update requirements of the Hot Spots law. However, the APCD may determine that more frequent notifications should be made. The notification frequency stated here does not comply with the requirements of Proposition 65. To comply with Proposition 65 requirements, the facility operator may choose to develop a notice similar to the APCD letter for newspaper publication or individual mailings on a quarterly basis. The facility operator should contact the OEHHA to determine if the chosen approach is acceptable.

C. LETTER RECIPIENTS

It is the responsibility of the facility operator to ensure that all receptors where estimated risks exceed the notification threshold receive the APCD's notification letter. The facility operator should specify to the APCD how it intends to ensure that the distribution of notices will be completed.

In some cases, where there are few homes or businesses, identifying letter recipients may not be resource intensive. However, if numerous homes and/or businesses are to receive the letter, compiling the addresses may require a substantial effort. The facility operator may choose to seek the services of consultants that specialize in such mailouts.

The facility operator shall also determine in consultation with the APCD if many of the letter recipients will be non-English speaking. If the area to be notified is made up of greater than five percent of any individual non-English language, an alternative language notice must be distributed. To address this situation, the APCD may consider a two-sided letter, one side in English with the other side in the appropriate second language. The facility letter (see Section D) should also reflect the fact (if this is the case) that many recipients are non-English speaking.

Information necessary to determine the percentage of non-English speaking residents can be obtained from the Department of Finance, Demographics Research Unit, State Census, at (916) 322-4651.

D. THE FACILITY NOTIFICATION LETTER

The purpose of this section is to specify the format for the facility's letter. In addition, this section also presents suggestions that facilities may choose to include in their letter.

It is suggested that the facility operator prepare and enclose their own letter as part of the notification package. However, all materials included in the notification package are to be reviewed by the APCD prior to distribution. If the letter is determined to be inappropriate upon review, the APCD will provide suggested revisions as well as a deadline for the facility operator to make changes.

1. Format (suggested)

The format of the facility's letter should be consistent with that of the APCD's as is discussed in Section B.

2. Components of the letter

The APCD will provide the facility considerable latitude concerning the content of its letter. The facility operator may choose to prepare a brief cover letter that simply refers to the enclosed letter prepared by the APCD. If this is the case, the only other suggestion concerning the facility letter is that it identify a contact and phone number. If the facility operator chooses to prepare a letter that does more than simply refer to the APCD enclosure, it is suggested that the facility operator consider specifying: 1) the purpose for emitting the toxic substance(s); 2) steps which have already been initiated to reduce emissions; 3) plans to further reduce emissions; 4) the time, date, and location, of a public meeting the facility operator is planning (when applicable); and 5) a facility contact. The facility operator may also choose to discuss the uncertainties associated with risk assessment and how alternative assumptions impact the estimated risks. Each of the suggested components are described below.

Purpose for emitting the toxic substance(s). It is suggested that the facility's letter provide more detail as to why the substance(s) is emitted. For instance, the substance may be a byproduct during the manufacture of a product that the public recognizes. The facility operator may also put the facility's emissions into perspective relative to other sources (e.g., automobiles, consumer products). The facility operator should consider using the guidance presented in these procedures when developing comparative risk information.

Steps taken to reduce emissions. It is suggested that the facility use its letter to communicate any steps it has taken to reduce emissions of toxic substance(s). It is possible that the emission reductions may be required and/or voluntary. The public should be informed of emission reductions that have occurred over the past years, particularly any reductions since the emission year upon which the risk assessment is based.

Plans for further reducing emissions. It is suggested that the facility operator consider discussing future enforceable plans to further reduce emissions of toxic substances. Specifying a percent reduction and when it will be achieved is beneficial.

Public meeting planned. Under the notification procedure previously discussed, the public meeting depends on public interest. However, the facility operator may prefer to schedule a public meeting in their letter prior to assessing public interest. If this is the case, the public meeting recommendations discussed in section E should be followed.

Facility contact. The facility letter should also include a facility name and phone number for people to call to obtain additional information.

Risk assessment results. Within the body of their letter, the facility operator may choose to discuss the risk assessment results. The facility may also choose to discuss the uncertainties with risk assessment as well as results from an uncertainty analysis. Such a discussion should be brief and not undermine the notification process. A public meeting is probably a more appropriate forum to discuss the fact that there are alternative risk assessment assumptions that can lead to different estimates of risk. The APCD may have specific suggestions concerning this discussion.

E. PUBLIC MEETINGS.

Preparing for a public meeting can require a substantial effort on the part of the facility as well as the APCD. Therefore, we recommend assessing public interest prior to holding a such a meeting. Specifically, letter recipients are to be provided the opportunity to call the APCD or mail a postcard to request a public meeting. The postcard will be included as part of the notification package sent to the public. If a public meeting is required, it is the facility operator's responsibility to prepare and mail out the meeting notice and make arrangements for the public meeting.

1. The need for a public meeting

With the approach described in this section, the APCD requires a public meeting if interest is expressed by the public. Simply sending out notification letters to the community without an opportunity for the public to meet with the APCD and facility is not desirable.

2. The purpose of the meeting

The purpose of the public meeting is to provide the notification letter recipients with more information about the facility's risk assessment results and to answer their questions.

3. Assess public interest in a meeting

A postcard (with the APCD's return address) requesting public interest in a meeting is to be included in the notification package. The purpose of the postcard is to solicit public interest in a meeting and to make it easy for the public to respond. Therefore, the postcard should clearly state that its objective is to assess public interest in holding a meeting concerning the risk assessment results as discussed in the notice. The postcard should also include space for the recipient to specify their name and address. Finally, the postcard should also specify what happens next (e.g., all respondents will be contacted in writing within a specific period of receiving the notice concerning the public meeting that they have requested). If many of the letter recipients are non-English speaking, the postcard should include text in the appropriate language. A sample postcard for assessing interest in attending a public meeting is presented in Figure 4. In addition to the postcard, interest in a public meeting is assessed based on calls by the public to the APCD requesting such a meeting.

4. The meeting notice

Based on public response, the APCD will determine if a public meeting is required. Alternatively, the facility operator may choose to hold a public meeting without assessing public interest. For either case, the meeting notice recommendations as presented below are identical and presented below.

Components of the meeting notice. It is recommended that the meeting notice be brief but clearly state the purpose for the meeting and why its recipients should attend. The notice should also specify the time, date, and location of the meeting. It is recommended that the meeting be held when the majority of recipients are most likely to be able to attend. (e.g., on a weekday or Saturday evening at a location near or within the community being notified). The meeting notice should be in the appropriate language for the recipient and mailed at least two weeks, but not more than four weeks, from the date the meeting is scheduled to occur.

5. Meeting format

It is important that the facility operator coordinate with the APCD concerning their plans for the public meeting. Specifically, the facility operator should obtain the APCD's approval of their plans for the meeting (e.g. the meeting notice, agenda) prior to sending out the meeting notice. It may also be necessary to include translators if non-English speaking people are anticipated to attend the meeting. It is suggested that the facility operator identify an impartial community representative (e.g., League of Women Voters representative) to chair the meeting. The facility operator should also assess the need for security at the meeting and make appropriate arrangements.

Brief presentation. At the public meeting, it is recommended that the facility operator state the purpose of the meeting, summarize the agenda and assess the attendees' comfort with the agenda. Based on the attendees' response, the facility operator may determine whether it is necessary to modify the agenda (e.g., shorten presentation and get to questions sooner). The facility operator should prepare a brief presentation (less than 30 minutes if possible) to be given at the public meeting. The presentation should include topics such as the purpose of the Air Toxics "Hot Spots" Program, why a risk assessment was required, what a risk assessment is, results of the risk assessment, and any steps the facility has taken to reduce emissions of air toxics. It is recommended that the facility operator make an effort to anticipate public concerns and question and incorporate answers into its presentation.

Public questions. After the facility's presentation, there should be an opportunity for the attendees to ask questions and to have them addressed. One of the keys to a successful meeting is listening carefully to the public's questions. Some questions at first may be expressed as statements of concern or fear. It may help to rephrase questions to ensure that they are understood. Listening also involves observing body language which may say more than the words themselves.

It is suggested that a time limit be placed on questioners to ensure that everyone gets a chance to speak. However, meeting attendees should get the opportunity to ask all of their questions. Therefore, it may be necessary to return to questioners that originally exceeded their time limit.

It is imperative that all of the attendees' questions be addressed. Therefore, the facility operator may have to make commitments to get back to some people concerning questions

that cannot be fully addressed at the meeting. It is strongly recommended that the facility operator expeditiously follow-up on any commitments made to the public. It is understood that some questions may not have well defined answers. Nevertheless, an attempt should be made to get to the question and provide a response.

Public meeting materials. The facility may also choose to provide literature for meeting attendees. It is suggested that any materials to be handed out be carefully reviewed by several individuals to avoid possible misinterpretation by the public. Any materials that the facility intends to make available at the meeting should be sent to the APCD several days in advance of the public meeting.

6. The APCD's role

The APCD will attend all public notification meetings under the Air Toxics "Hot Spots" Program. The APCD may choose to actively participate in the meeting by giving a brief presentation or simply sit with the audience. Regardless of the approach, the APCD's presence should be announced at the beginning of the meeting.

The APCD will request representatives of other agencies such as the OEHHA attend the meeting. These agency representatives may be the most appropriate to address certain questions. For example, the OEHHA is probably the most appropriate agency to describe the risk assessment approach recommended in the CAPCOA Air Toxics "Hot Spots" Program Risk Assessment Guidelines.

7. Frequency of public meetings

At a minimum, the need for a public meeting should be assessed every two years. Each time that the notification letter is distributed it is to be accompanied by a postcard to assess interest in a public meeting or access to information about the Hot Spots program. Therefore, if there is public interest, a public meeting is recommended on a biennial basis. Based on the interest at the meeting, the facility operator may determine that more frequent meetings with the public are desirable. As a result, the facility operator may choose to continue a dialogue with the community on a more frequent basis. This dialogue may take the form of newsletters, facility tours, and/or public meetings.

FIGURES

[Faint, illegible text]

Figure 1. Flow diagram of "Hot Spots" Public Notification Procedures in Santa Barbara County

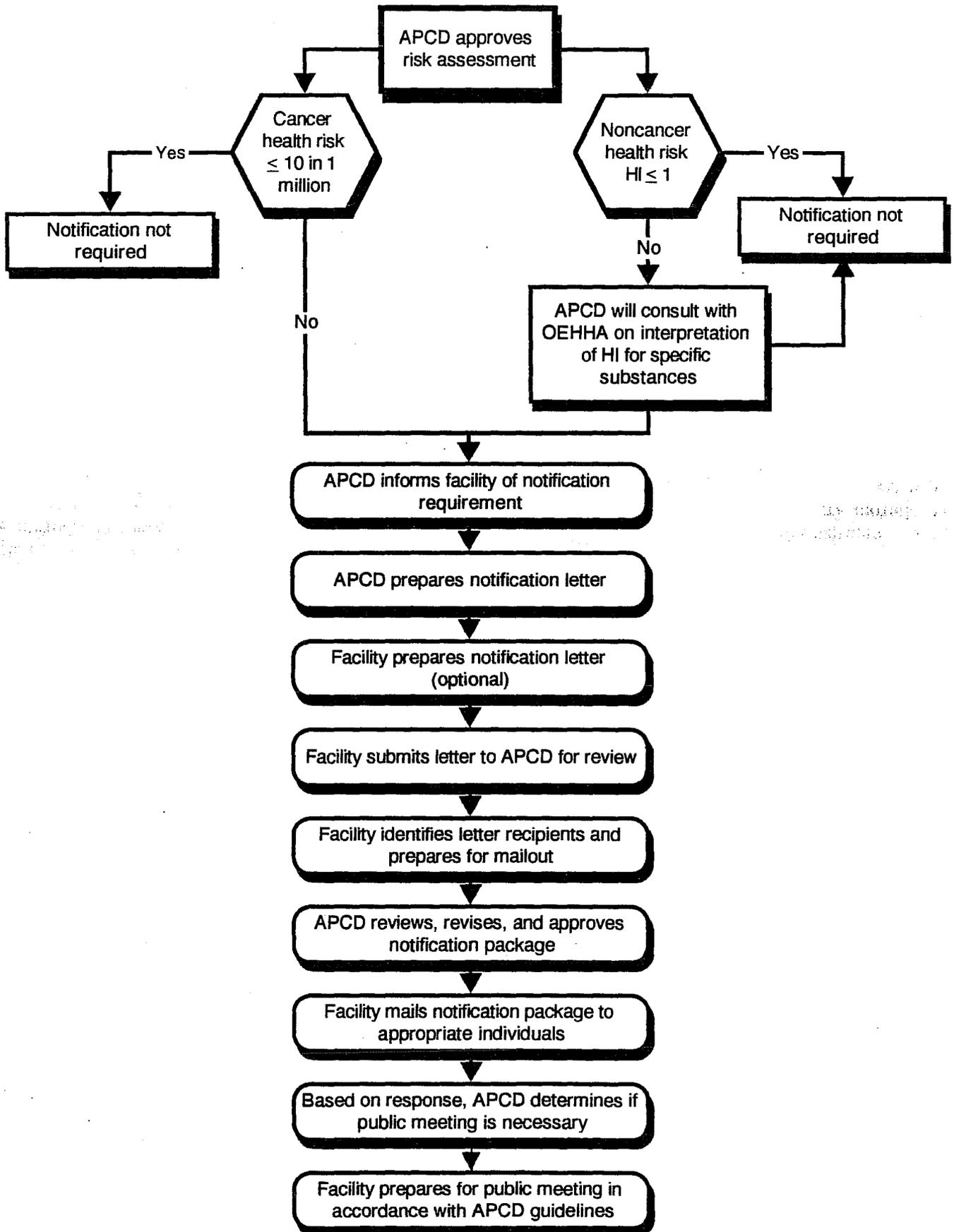


Figure 2
Sample Notification Letter (cancer risk)

Dear Neighbor:

This letter informs you that you may be exposed to toxic air pollutants. State law requires that **[facility name]** notify you of possible health risks resulting from routine emissions of toxic air pollutants from their facility. Approximately **[number]** homes/businesses located around the facility are receiving this notice.

[Facility name], which is located at **[facility address]**, **[uses and]** emits **[emitted substance(s)]** into the air **[to produce product]**. The emitted substances are toxic air pollutants and prolonged exposure may increase your risk of getting cancer.

A written report describing possible health effects from exposure to toxic air pollutants emitted from **[facility name]** has been prepared. No actual measurements of toxics have been made around the facility nor have there been any health surveys of actual illnesses attributable to emissions from the facility. Instead, computer modeling has been used in this report to estimate exposure and the associated risk. This report has been reviewed and evaluated by state health experts. Based on the report, exposure to emissions from **[facility name]** may increase your risk of getting cancer by **[number]** chances in one million. The estimate is a theoretical value, in all likelihood overstates the risk, and is based on assumptions designed to protect sensitive people in the population. These assumptions include: 1) That you will be exposed to the emissions for 70 years; 2) That you live within **[number]** of feet of **[facility name]**. If these conditions do not apply to you, your risk is likely to be lower. This estimate does not consider past exposures or exposure to other toxic air pollutants besides those released by **[facility name]**.

To give you an idea of how the potential health impact from **[facility name]** fits in with current air pollution problems, we can provide the following comments. The cars we drive, factories, and many of the home products that we use contribute to our air pollution problems. Exposure to these background air toxics may increase your risk of getting cancer. A list of estimated cancer risks for selected locations in Santa Barbara County is printed on the back of this letter. While these numbers are only estimates, we hope that it helps you to put **[facility name]** contribution to risk into perspective. Attached to this letter is an EPA document that provides answers to some basic questions regarding air pollution and health risk.

The Santa Barbara County Air Pollution Control District (APCD) and the state are taking steps to reduce emissions of toxic air pollutants. If you have questions, please call the APCD at the number below.

Enclosed is a letter prepared by **[facility name]** which provides additional information.

If you have any questions concerning this letter, please call the Santa Barbara County Air Pollution Control District at (805) 961-8800. In addition, if you are interested in attending a public meeting to discuss the information in this letter, please call the APCD or fill out and return the enclosed postcard.

Note: Businesses receiving this notice should post it in an area(s) where it is most likely to be viewed by employees.

**Estimated Background Cancer Risk Due to Air Pollution
at
Selected Locations
in
Santa Barbara County
(Number of Cancer Cases per Million People)**

Downtown Santa Barbara	524
Santa Maria	98
Gaviota	47
Lompoc	40

Figure 3
Sample Notification Letter
(chronic noncancer health risk)

Dear Neighbor:

This letter is to inform you that you may be exposed to toxic air pollutants. State law requires that **[facility name]** notify you of possible health risks resulting from routine emissions of toxic air pollutants from their facility. Approximately **[number]** homes and/or businesses are receiving this notice.

[Facility name], which is located at **[facility address]**, **[uses and]** emits **[emitted substance(s)]** into the air **[to produce product]**. The emitted substances are toxic air pollutants.

A written report describing possible health effects from exposure to toxic air pollutants from **[facility name]** has been prepared. No actual measurements of toxics have been made around the facility nor any surveys conducted of actual illnesses in the community attributable to the facility's emissions. Instead, computer modeling has been used in this report to estimate exposure and the associated risk. The report has been reviewed and evaluated by state health experts.

Based on the report, exposure to emissions from **[facility name]** may increase the possibility that you experience **[adverse health effect(s) eg., respiratory irritation]**. This statement is based on assumptions designed to protect sensitive people in the population. These assumptions include: 1) That you will be exposed to the emissions for a long time (years). 2) That you live within approximately **[number]** feet of **[facility name]**.

The Santa Barbara County Air Pollution Control District (APCD) and the state are taking many steps to reduce emissions of toxic air pollutants. If you have questions, please call the APCD at the number provided below.

Enclosed is a letter prepared by the facility which provides information **[including their efforts to reduce emissions of toxic air pollutants]**.

If you have any questions concerning please call the APCD at (805) 961-8800. In addition, if you are interested in attending a public meeting to discuss the information in this letter, please call the APCD or fill out and return the enclosed post card.

Note: Businesses receiving this notice should post it in an area(s) where it is most likely to be viewed by employees.

Figure 4

**Sample Postcard Assessing
Interest in Public Meeting**

Side 1

Request for More Information or Involvement

Yes. I am interested in finding out more about my risk from toxic air pollutants emitted by [facility name].

Check as many as apply:

- Please send me more information from the Air Pollution Control District (APCD).**
- Please have the [facility name] send me more information.**
- Please ask the [facility name] to contact me. My phone number is _____**
- I would like to attend a public meeting on the issue. Please make sure I am informed when one is scheduled.**

Side 2

Name _____

**Please place
stamp here**

Address _____

Request for More Information or Involvement

**Santa Barbara County APCD
26 Castilian Drive, Suite B-23
Goleta, CA 93117**

Figure 5

EPA Air Pollution and Health Risk

How Do We Learn About Risks?



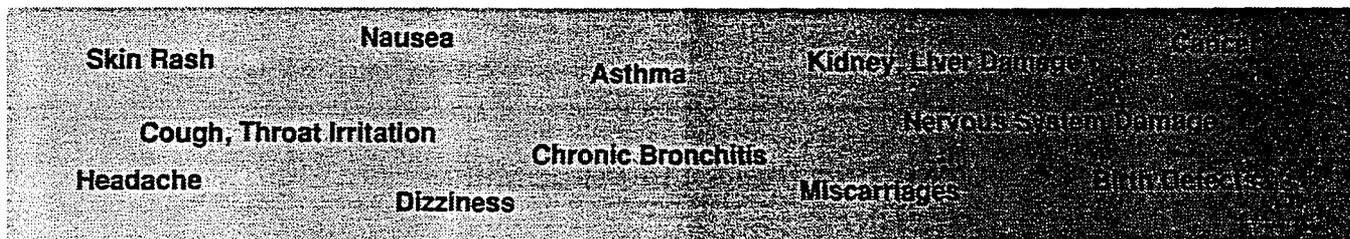
The warnings about risks from hazardous substances are everywhere. Every day, the news media report information on hazardous substances. Many products now tout warning labels or claims about being "all natural" and "chemical free." How do we know when a risk is serious? How do researchers estimate risk, and how does the government use this information to develop regulations that limit our exposure to hazardous substances? This fact sheet is intended to help answer these questions.



Which Risks Are of Greatest Concern?

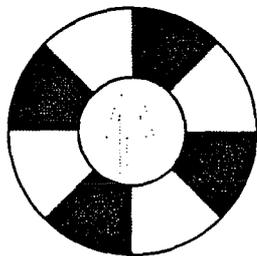
Less Serious
reversible
not debilitating
not life-threatening

More Serious
irreversible
debilitating
life-threatening



How Do Researchers Estimate Risk?

Health risk is the probability, or chance, that exposure to a hazardous substance will make you sick.



Animal experiments or human studies provide information about how hazardous a substance is. Scientists use the results of such studies to estimate the likelihood of illness at different levels of exposure.

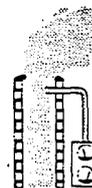


Animal Experiments



Human Studies

Information on exposure comes from two places: (1) monitors placed on factory smokestacks or at special places in your community, or (2) from mathematical models that estimate exposure based on amounts of chemicals released.



Monitors



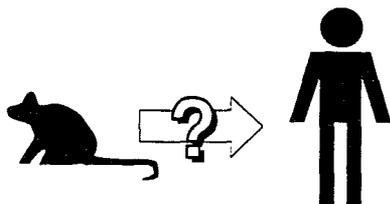
Models

Health Risk = Hazard X Exposure

Why Is Information Used for Health Risk Decisionmaking Uncertain?

Uncertainty About Hazard

Many hazards are identified by testing animals. We do not know for certain whether the hazard estimated using animal studies is the same for humans.

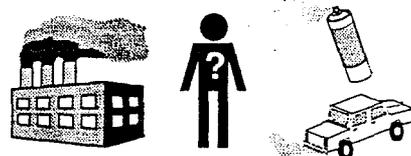


Information is uncertain because of:

- lack of complete scientific understanding of how a hazardous substance makes you sick and how it moves through the air, water, or ground;
- too few human or animal studies of the health effects of individual chemicals and mixtures of chemicals;
- the variable nature of weather patterns affecting exposure;
- the inability to know *everything*.

Uncertainty About Exposure

We do not know for certain that monitoring or mathematical models always produce accurate estimates of exposure. It is nearly impossible to account for the different exposures a person may encounter daily.



What Are Important Factors in Risk Decisionmaking?

Balancing Scientific Results with Public and Economic Concerns

Ideally, regulators would like to eliminate all pollution and its risks, but this is usually not a realistic expectation. Regulators must address the most important risks and decrease them to the level at which they believe the risks are smaller than the benefits of the activity causing the pollution.

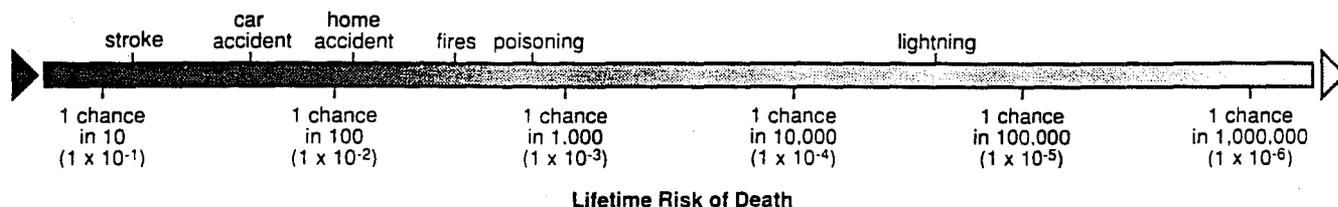
This is similar to what millions do each day when they balance the risks of an automobile accident with the convenience and necessity of driving. Just as a driver will buckle up and drive defensively to be safer, agencies take regulatory action to eliminate as much risk as is possible without losing the benefits of the activity.

Public Risk Perceptions

Scientific results may show that certain hazardous substances pose a low health risk to people, but the public may still be concerned about these hazardous substances because of different attributes of the risk. Other attributes may affect people's perceptions of a risk:

- How serious and dreaded is the illness?
- How certain is scientific knowledge?
- What is the catastrophic potential?
- Who bears the risk?
- Is the risk voluntary?
- Who receives the benefits of the "risky" activity?

Putting Risks in Perspective



What Do the Numbers Mean?

To provide an idea of the size of risks from environmental hazards as risk analysts will describe them to you, the *continuum* above presents risk statistics for some familiar events. Risk analysts describe risks numerically in scientific notation, for example 1×10^{-5} , which means that there is one chance in 100,000 of an event occurring. It is important to note that these risk statistics are population averages, while risk analysts usually estimate risk to the maximum exposed individual.

Actions to Reduce Risk

By becoming better informed you can reduce the risks that you determine to be unacceptable. This may mean changing your lifestyle or providing input to government, industry, and consumer/environmental interest groups. If you would like more information the sources listed below are a good place to start. You may also want to contact your local health department or regional or state environmental agencies for other information sources.

For More Information ...

Risk Assessments for Toxic Air Pollutants: A Citizen's Guide. Write to: U.S. EPA, Air Risk Information Support Center, MD-13, Research Triangle Park, NC, 27711.

Evaluating Exposures to Toxic Air Pollutants: A Citizen's Guide. Write to: U.S. EPA, Air Risk Information Support Center, MD-13, Research Triangle Park, NC, 27711.

APPENDIX A

PUBLIC COMMENTS AND APCD RESPONSES
ON
PUBLIC NOTIFICATION PROCEDURES

**Summary of Public Comments and APCD Responses
on
Proposed Public Notification Procedures**

- **Comment:** The procedures should be developed with input from industry, businesses, community groups and the public.

Response: This has been done. The APCD established a Public Notification Committee (PNC) as recommended in the state's Public Notification Guidelines. The PNC was comprised of representatives from industry, environmental and health organizations, and citizen groups.

- **Comment:** Facilities emitting crystalline silica should not be required to notify the public due to the controversy surrounding risk factors and limited data on what percentage of emissions actually contributes to an increase in adverse health effects.

Response: The APCD will not require crystalline silica emitting facilities to notify the public of significant risk until these issues can be addressed and more accurate data are available concerning the risk attributable to specific fractions of crystalline silica compounds.

- **Comment:** Businesses in the Lompoc Valley should be required to notify all potentially exposed individuals of any increase in risk due to their crystalline silica emissions.

Response: Once more accurate data are available on the risks and quantities of crystalline silica emissions from facilities in the Lompoc Valley, those businesses causing a significant risk will be required to notify the public. In the mean time, the APCD proposes to hold public workshops in Lompoc to discuss the current understanding and controversy surrounding crystalline silica.

- **Comment:** The notification threshold should be expressed in terms of excess cancer chances, not excess cancer cases.

Response: Since risk is defined as a chance of a particular event occurring, the use of the word chance along with risk would be redundant.

- **Comment:** A tiered approach should be used to assure the level of notification is relative to the degree of risk.

Response: The tiered approach was considered for Santa Barbara County, however due to the types of businesses, population distributions, and experiences in other APCDs, the single level notification was selected. The single level notification as proposed in the procedures has several advantages. All notifications follow a consistent format regardless of risk and only one level of significance need be determined.

- **Comment:** State in the notification letter(s) that the facility's emissions are legal and permitted by the APCD so as to not unduly alarm the recipient.

Response: This type of statement is too general and may mislead the public. Some emission sources may not be under permit or be permitted by the APCD at the levels in question. In addition, some emissions may be in direct violation of other laws or standards, such as Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1987.

- **Comment:** The significance level for notification should be consistent with other right-to-know laws and other APCDs.

Response: We agree. A number of other APCDs have already adopted risk levels similar or identical to those proposed by Santa Barbara County. In addition, the carcinogenic risk significance level is the same as that required for public notice under Proposition 65.

- **Comment:** Emphasize the conservative nature of the health risk assessment in the notification letter.

Response: Although the primary purpose of notification is to inform the public of potential exposure to unhealthful toxic emissions, the notification letter contains language which discusses some of the major assumptions used in the risk assessment process.

- **Comment:** Use up-to-date information and do not base notification on emissions reported in past.

Response: The business will have the opportunity to state what they are doing to lower risk to neighboring populations as long as their actions are verifiable and permanent. Eventhough a facility may have reduced its current risk to the public, past exposures cannot be ignored. In the case of cancer, exposures to carcinogenic substances stay with the individual for life. However, the elimination or reduction of present and future toxic emissions will lower the cancer risk to an individual over his/her lifetime.

- **Comment:** Do not require notification for nuisance conditions.

Response: According to the proposed procedures, the APCD will consult with the state Office of Environmental Health Hazard Assessment when there is a question concerning the actual noncancer health risk posed by a particular substance. In some cases, a Hazard Index greater than one may not require the business to notify exposed individuals.

