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Licensing

2-1	Commends DPR's judicious determination to remove the practically unfeasible proposal requiring all PCAs with QAL/QAC subcategory credentials to be on-site during fumigation treatments with general applicability throughout the state. The current proposed regulation would require a pest control business (PCB) employee to hold this subcategory credential by January 2009, to supervise this sort of work. However, it is uncertain by reading the new regulation proposal to ascertain its geographic applicability – whether it's just within the three major NAAs or the entire state? ***The licensing requirements apply statewide. DPR believes that the regulations are clear and no changes are necessary in response to this comment.***	9B
2-2	Section 6445.5 would require all field fumigation applications made by a licensed pest control business to have a person holding a qualified applicator license or certificate with a field fumigation pest control subcategory supervising the work. While the modifications will allow growers to continue field fumigations, this section stretches beyond the scope of the court order and is therefore unnecessary. ***DPR disagrees with the commentor's conclusion that the requirement for licensing in a specific subcategory to supervise field fumigations is unnecessary. While it may not result in a measurable amount of VOC reduction, having a knowledgeable person in charge will increase the likelihood of compliance with the regulations.***	15B
2-3	Supports the changes in section 6445.5. ***No response necessary to indication of support.***	17B
2-4	We understand that the Department has backed away from requiring fumigant applications to be made by licensed applicators. This issue should probably be retained for continued review and also evaluate other means (upgrading the private applicator training) to continue improving our fumigant program - not so much for smog/VOC purposes but for buffer zone and worker protections. ***DPR agrees with the suggestion that the fumigant program be continually reviewed to see if there are areas that can be improved.***	18B
2-5	Under section 6445.5 it states the requirement involving licensed pest control business. For clarification, when field fumigations are conducted by a licensed pest control business does the person supervising the fumigation required to be on-site during the entire fumigation? ***There is no requirement that the person responsible for the supervision be on site.***	19B

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2-6	Training programs, materials, etc, are not clearly laid out in the DPR proposed regulations ***Comment not relevant to the proposed regulations.***	22B

Methods

2-7	The increased application of water seals seems to be an effective way of mitigating a VOC, however, for some fumigants, the addition of water dilutes the effectiveness of the chemical and therefore the pest problem may require additional treatments and more opportunities for VOCs to be released into the air. ***DPR does not intend for all fumigants and application methods to be viable alternatives in all situations. In cases where the additional water requirements are not viable, tarping or drip application may be viable alternatives.***	1B
2-8	Section 6447.3, line 4. Please insert an "in" between described and this (...described "in" this section). ***DPR has made this editorial change.***	3B
2-9	DPR needs to request new emission study data from registrants to allow for other methods to be considered for approved use under this regulation. Flood application and nighttime application are prohibited under the proposed regulation for NAAs. Although a only a small number of growers use these methods, we believe they should be allowed under the regulation since the concept of the regulation is to encourage low emission methods for application. ***DPR plans to initiate a data call-in to request additional emission studies by registrants. DPR prohibits flood and night metam applications within NAAs due to high emissions from these application methods, based on the data currently available to DPR.***	4B
2-10	In section 6447, exempting tree-hole and individual vine replant fumigations of less than one contiguous acre is too large an area to treat. DPR is inappropriately encouraging expanded use of a particularly high hazard and virtually un-regulated fumigation method. This method is still not subject to any specific safety regulations. Use of this type of spot treatment may even increase fumigant emissions because it is prone to leaks. ***The total VOC emissions associated with replant fumigations are negligible due to very low use. These applications are infrequent and small, compared to other fumigations. Including these applications would greatly complicate the regulations, with negligible reduction in VOC emissions.***	5B
2-11	The addition of tree-hole and single vine exemption to section 6448, 6449, 6450, and 6451 is of greater concern because other soil fumigants are not currently applied using the tree hole or single vine application method and a high rate of reported illnesses is associated with another spot treatment method, the application of metam-sodium to telephone poles.	5B

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	These changes may violate section 11346.8(c)(2). These soil fumigants are not currently applied with these methods and the original regulation was appropriately silent on expanding this exemption to these fumigants. ***Based on the comments received, other fumigants are used for these types of applications. Tree and vine replant applications are very different from telephone pole treatments, so the comparison is inappropriate. The total VOC emissions associated with replant fumigations are negligible due to very low use. These applications are infrequent and small, compared to other fumigations.*** ***From 1988 to 2005, there have been 24,803 reported cases of illness or injury related to pesticide exposure. Within this timeframe, 17 reported cases of illness or injury have been due to metam-sodium use to telephone poles. Although DPR is concerned about all pesticide illnesses, we do not agree that metam-sodium use to telephone poles has a high rate of reported illnesses. DPR has followed all the requirements of Government Code section 11346.8(c)(2) during the development of these regulations. All modification made to the original text were noticed on October 3, 2007 for a 15-day comment period. The addition of tree-hole and single vine exemptions from the proposed regulations were included in this notice.*** ***DPR did not violate Government Code section 11346.8(c)(2). Modifications made were sufficiently related to the originally proposed text.***	
2-12	Sections 6448.1(b) and 6449.1(c): Specific soil moisture requirements are important for soil injection application methods, but are not relevant for chemigation (drip system) fumigations. Suggest adding to (b), "For soil injection applications only, . . ." ***There is insufficient data to determine if specific soil moisture is not needed to reduce VOC emissions from drip applications.***	7B, 21B
2-13	Omits "not", a key word regarding soil moisture requirements for fine textured soils being assessed using the feel method. As per the product label, fine textured soils should "…not form a ribbon…" when compressed between thumb and forefinger. Fine textured soils have limited air space for gaseous diffusion of a fumigant. If the air space contains water to the point of creating a ribbon using the feel method, the soil would be too wet and therefore unacceptable for fumigation. (sections 6448.1(b)(3) and 6449.1(c)(3)) ***The soil moisture requirements in the regulation only apply if there are no label requirements.***	7B, 21B
2-14	Section 6449.1(b) is unclear. It is our understanding that the intention is to allow chloropicrin to be used in combination with 1,3-D, and under the constraints specified in section 6448.1. However it is unclear whether or not prohibitions listed in	7B, 15B

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	the second sentence ("However within the San Joaquin Valley, …methods described in the following sections are prohibited …6448.1(c)(5) (Nontarpaulin/deep/broadcast or bed)") applies only to chloropicrin as "…the sole active ingredient" or if it also applies to combinations with 1,3-D. As a result, this section should be clarified, at a minimum to allow chloropicrin to be used in combination with 1,3-D as described in 6448.1(c)(5). ***DPR disagrees. Section 6449.1(b) states that the method prohibition pertains to products containing chloropicrin as the sole active ingredient. This section does not prohibit chloropicrin from being used in combination with 1,3-D.***	
2-15	Chloropicrin is currently used as a deep application at 18" or deeper with 1,3-D in both bed and broadcast untarped applications. This use pattern needs to be maintained. As previously recognized in the original proposed regulations, the Department needs to establish an emissions factor for "Nontarpaulin/Deep/Broadcast or Bed" applications of chloropicrin. ***DPR prohibits untarped chloropicrin applications due to their high emission rates.***	7B, 15B
2-16	WPHA commends DPR for providing an exemption from the proposed VOC regulations concerning replant of individual vine or tree-sites (tree hole) on less than one contiguous acre due to very negligible emissions. WPHA supports DPR's inclusion of all known fumigants that may be used for such small and targeted treatments, and encourages DPR to consider the potential that future chemistries may be also be available for these types of replants. The proposed regulation currently states that replant applications less than one contiguous acre are not considered field soil fumigations. However, WPHA is concerned that if identified vine/tree-hole replant sites are spread throughout orchard/vineyard is greater than 1 acre, would this exemption still be applicable as long as the sum of all targeted treatment sites are less than 1acre? WPHA would request that DPR consider clarifying this issue in a manner advantageous to individual California growers. ***This comment is confusing. The commentor asks whether the tree and vine replant exemption applies if the total number of sites is both greater and less than one acre. DPR uses the term contiguous to mean a grouping of individual vine or tree-sites that are within an area that is not divided by roads or untreated rows. This contiguous area must be less than one acre. With this exception, there can be several contiguous treated areas less than one acre within an orchard or vineyard. DPR will provide guidance to county agricultural commissioners on situations when the exemption applies and does not apply.***	9B
2-17	DPR currently proposes to eliminate methyl bromide application methods that should be allowed for use in the NAAs. Specifically, DPR proposes to allow only two methyl bromide application methods in the NAAs during the May-October timeframe: (1) tarped, shallow, broadcast, and (2) tarped, deep broadcast. While we agree that shallow methyl bromide applications should be tarped, we do not agree that deep applications should be tarped. DPR must ensure that their application method emission factor averages only contain data that was generated using current application practices. Any older datasets from studies that did not utilize current application technology should be omitted from the dataset.	10B

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	DPR prohibits deep-untarped methyl bromide applications due to their high emission rates, as documented by several field monitoring studies of current practices.	
2-18	Although the proposed regulation text is difficult to follow, it appears that DPR proposes to eliminate non-tarped, strip applications of methyl bromide and chloropicrin, such that only tarped broadcast methods are allowed. DPR has no justification to eliminate non-tarped, deep strip fumigation. ***DPR prohibits methyl bromide strip applications due to their high emission rating.***	10B
2-19	Regarding chloropicrin, DPR proposes to eliminate all non-tarped methods where chloropicrin is the sole active ingredient, based on DPR's assumption that these methods are "high emission application methods". Current data and logic indicate that emissions from non-tarped deep (18 inches or greater) chloropicrin applications are significantly less than the 64 percent currently assigned to the method by DPR. Therefore, DPR should not use 64 percent as the emission factor for this method, but should instead use a more realistic emission factor. Moreover, we point out that tarped deep applications of methyl bromide-chloropicrin mixtures are problematic, as it would require an application tractor and a separate tarping tractor. Unlike methyl bromide which only requires two deep injection shanks, chloropicrin must be injected on 12" centers, requiring a separate application tractor. The use of these two tractors would increase the labor costs to both the applicator and grower alike. Non-tarped, deep chloropicrin applications are critical for tree and vine replant and orchard establishment in the San Joaquin Valley. USDA-ARS and University of California researchers have demonstrated that chloropicrin is one of the most promising methyl bromide alternatives for controlling orchard replant disorder. DPR must reexamine its assumptions in light of the existing data and correct the proposed regulations. Regardless of the fumigant, DPR proposes to eliminate or restrict the use of these vital crop production tools based on whether or not DPR believes these methods are "high emission" methods. In some cases, there are limited data to determine a reasonable emissions factor for some application methods. For example, DPR uses the non-tarped shallow emissions factor for chloropicrin as a surrogate for the non-tarped deep emissions factors for chloropicrin, due to lack of data. DPR should either adjust the deep emissions factor based on the studies already published, limited as they are, or use the surrogate emission factors only on an interim basis until those data can be generated. DPR should consider a two-year data call-in approach to refining the emission factors for the methods that need a more robust dataset. ***DPR agrees that the emission data for deep-untarped chloropicrin applications is limited, and the current emission rating of 64 percent may be an overestimate. However, the commentor does not propose an alternative emission rating. DPR plans to initiate a data call-in to request additional studies by registrants for this and other application methods.***	10B, 17B
2-20	Need to clarify what is meant by "less than one contiguous acre", as it relates to the tree-site exemptions for chloropicrin	10B, 15B,

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	and other fumigants. ***DPR uses the term contiguous to mean a grouping of individual vine or tree-sites that are within an area that is not divided by roads or untreated rows. This contiguous area must be less than one acre. With this exception, there can be several contiguous treated areas less than one acre within an orchard or vineyard. DPR will provide guidance to county agricultural commissioners on situations when the exemption applies and does not apply.***	16B, 17B, 21B
2-21	Section 6450.1 - We are still puzzled why the flood chemigation application methods are not listed as low emission methods also. If it is accepted that water treatments provide a useful method of reducing emissions, and that three water seals reduce the emissions to approximately 20 percent, it is difficult to understand why a flood treatment would not give a similar effect. Yet DPR persists in referencing the flood chemigation method to be a high emission application method and prohibits that method of application in the NAAs from May through October. This is not logical from a field perspective and makes no scientific sense. While recognizing that definitive emission studies are not necessarily available for all listed application methods, it is not unreasonable to extrapolate results from one application scenario to another. ***DPR has no data for the flood method. DPR uses the data for sprinkler applications with one-water treatement as a surrogate. DPR believes that it is inappropriate to use the sprinkler with three-water treatments as a surrogate. The water treatments contain no fumigant and are used to suppress the VOC emissions. The flood method uses no additional water to suppress emissions.***	14B, 12B, 16B, 17B
2-22	As we interpret the regulations, if a grower wants to conduct a strip fumigation using methyl bromide, they could not utilize Tarpaulin, Broadcast methods, both deep and shallow. As a result, a grower would be forced to turn to Nontarpaulin/Deep/Broadcast, which is also prohibited for methyl bromide fumigations within the San Joaquin Valley, Southeast Desert and Ventura ozone NAAs during the May 1 through October 31 time period. Western Growers interprets the regulations to eliminate ALL strip fumigations utilizing methyl bromide within the San Joaquin Valley, Southeast Desert and Ventura ozone NAAs during the May 1 through October 31 time period. We request that DPR clarify the allowable strip fumigation methods for methyl bromide. ***The only methyl bromide application methods that are not prohibited in the San Joaquin Valley, Southeast Desert, and Ventura NAAs during May- October are tarpaulin/shallow/broadcast (section 6447.3(a)(3)) and tarpaulin/deep/broadcast (section 6447.3(a)(5)).***	15B
2-23	The prohibition of the above shallow application methods for 1,3-Dichloropropene will negatively impact a limited amount of specialty crops such as tomatoes, melons, peppers and carrots grown throughout the San Joaquin Valley. It is important to Western Growers that every acre of farmland remains in production. However, it is equally important that the acres farmed with these specialty crops that are currently utilizing the proposed prohibited shallow methods are able to	15B

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	efficaciously fumigate their fields. Western Growers believes it is infeasible to expect the specialty crops listed above to shank the product deeper into the soil due to the configuration of the crop bed. It is our understanding that *some* growers will be able to mitigate the prohibition of these shallow methods by moving fumigation activities outside the May 1 to October 31 timeframe if weather permits. However, those who currently fumigate within the May 1 through October 31 timeframe, such as melon growers, are currently doing so at low or ultra low rates (as low as 5 gallons/acre and below). While we favor the retention of all application methods, even if the prohibitions are made applicable only in the NAAs, Western Growers requests that the Department consider maintaining the proposed prohibited shallow methods with specific criteria or conditions for those growers who have a strict growing schedule to adhere to and do not have other product application options. ***DPR prohibits the standard 1,3-dichlropropene applications due to their high emission rating. The regulation allows this method if it includes three post-application water treatments.***	
2-24	The requirement to begin the first water treatment within 30 minutes of application may be in conflict with the reentry intervals on Telone labels. ***The proposed regulation does not conflict with labeling. Labeling prohibits early entry without appropriate personal protective equipment. Workers can conduct the water treatments by wearing the appropriate personal protective equipment. Workers can also conduct the water treatments without personal protective equipment by placing post-application water treatment equipment prior to fumigation.***	12B, 15B
2-25	The prohibitions on nighttime and flood applications will be extremely problematic for industry. We strongly encourage DPR to validate the emission factors associated with flood applications prior to excluding this technique. Industry data suggests that the assigned emission factor may be overestimated by 20 percent or greater. In addition, whether to allow nighttime applications or not is something that would be better addressed in permit conditions rather than a blanket prohibition on the timing. Occupational exposures, emissions potential and bystander exposure all weigh on the decision to allow an application at night and it is often a more conservative and prudent time to apply this product. ***DPR prohibits night and flood metam applications due to their high emissions. DPR has no data for the flood method. DPR uses the data for sprinkler applications with one-water treatment as a surrogate. DPR believes that it is inappropriate to use the sprinkler with three-water treatments as a surrogate. The water treatments contain no fumigant and are used to suppress the VOC emissions. The flood method uses no additional water to suppress emissions. The available data for night applications show high emissions, which is also causes high exposure to workers and bystanders.***	15B

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2-26	The modified regulations prohibit deep placement, untarped or tarped strip fumigations with methyl bromide. Section 6452(b) allows the Director to approve methods prohibited by this section based on scientific data that meets specified criteria. It is unclear whether a simple mathematical calculation that demonstrates the fact that strip treatments result in no greater emissions than the approved tarped broadcast application meet the criteria of subsection (c). The Workgroup seeks clarification. ***DPR could approve interim use of methyl bromide strip applications under section 6452 if the method includes appropriate limits on application rate.***	17B
2-27	Section 6450.2 has been amended to require that a first water treatment must consist of at least 0.20 inches of water immediately following the application and another 0.20 inches of water applied no earlier than one hour prior to sunset on the day of fumigation. The Dazomet product label instructions (Basamid® G) direct users to maintain adequate soil moisture through supplemental irrigation for 72 hours after application. The label requires a larger initial volume of water (0.75 inches) and in some cases may also prescribe more frequent irrigation than DPR's proposed schedule. Under rapid drying conditions it may be necessary to irrigate in early afternoon to maintain the water seal. The proposed regulation should be sufficiently flexible to allow site-specific post application water treatment as dictated by the product label. As proposed, this section is inconsistent with product labeling and will not be easily understood by persons directly affected by the regulation. ***As with all pesticide applications, when regulations differ with labeling, applicators must follow the more stringent requirements. In this case, labeling must be followed if it requires a greater amount of water or more frequent water treatments.***	17B
2-28	We request that DPR clearly point out which application methods will be allowed during the ozone period. It is confusing as to which methods will be allowed during the ozone season in the NAA when reference is made to the grower having the option to choose either a lower emission method or to treat less acreage. ***The regulation does not provide an option to choose a lower emission method or treat less acreage. The regulation prohibits use of certain application methods within the San Joaquin Valley, Southeast Desert, and Ventura NAAs during May-October.***	19B
2-29	For the San Joaquin Valley NAA, methyl bromide will not be permitted from May thru October without use of a tarp. Growers in this area used to be able to apply deep methyl bromide fumigation without use of a tarp. We believe that deep application of methyl bromide is a valid method of reducing VOCs. We would ask on what scientific basis is DPR making this change? The proposed regulations are supposed to achieve the stated goal of reducing ambient ozone tonnage via VOC reductions. It would appear that DPR is jumping to the conclusion that a tarp placed 10 inches above shank outlets will	20B

	reduce overall emissions by a greater amount than delivery of methyl bromide at 18" or greater within the soil without use of a tarp. Does DPR have data to draw this conclusion? If our industry were to suggest application of a lesser amount of methyl bromide such as 200 lb/ac at 26 inches plus 330 lb/ac of 1,3-D at 18 inches? We believe that DPR's response would be to show data that emissions of both products could be reduced. ***DPR prohibits untarped methyl bromide applications due to their high emission rates, as documented by several field monitoring studies of current practices.***	
2-30	Section 6450.1: As stated previously, we emphasize that many of our fumigation applications are done at night. The proposed restriction that no applications can be earlier than one hour after sunrise and must be completed no later than one hour before sunset is far too restrictive and contrary to our attempts to avoid applications when bystanders and other people not associated with the application may be present. Applicators and growers throughout the state need to able to apply fumigants at night. Early start applications should be allowed at least as an interim basis until the registrants can submit the supportive field trial data. ***Comment is not relevant to the modified text - no response necessary.***	22B
2-31	DPR's banning the use of untarped strip treatments of methyl bromide or chloropicrin in the non-attainment areas. DPR states that the VOC emissions are rate dependent but then does not allow the rate to be a factor in deciding which methods are allowed or not allowed. As stated in 1) the decision on what methods to allow/disallow seems arbitrary. ***DPR prohibits methyl bromide strip applications due to their high emission rates. DPR could approve interim use of methyl bromide strip applications under section 6452 if the method includes appropriate limits on application rate.***	23B
2-32	We would also request that individual tree-hole treatments for more than one contiguous acre be allowed, though under the auspices of the regulation. We appreciate DPR exempting the tree hole treatments for up to one contiguous acre (after clarification of what one contiguous acre means) for all soil fumigants in the revised proposal. However, there are situations where hole treatments of more than one acre are an effective means of dealing with replant situations. ***DPR exempts tree-hole replant applications less than one acre due to their negligible emissions. VOC emissions would no longer be negligible if entire orchards are treated with this method. There is no available data documenting the emissions for this application method.***	23B
2-33	Sections 6447, 6448, 6449, and 6450 have been modified and all include language that arbitrarily exempts the nursery industry from routine fumigation practices. More specifically, the modified regulation exempts three routine practices all related to the nursery industry and creates a fourth category of "other similar structures" which lacks clarity. This appears to be an arbitrary exemption. DPR’s 2006 Update to the Pesticide VOC Inventory shows that in Ventura, the Nursery industry	13B

	is the 6th highest source of annual pesticide VOC emissions. ***The regulation does not exempt the nursery industry, or the application methods it routinely uses. The regulation exempts certain applications less than one acre due to their negligible emissions. Few nurseries conduct applications less than one acre. While nurseries are the 6th highest pesticide VOC source in Ventura, they account for only one percent of the emissions.***	
2-34	In section 6447.3(1)(G) and (2), DPR needs to clarify when the "three day" and "four-day" restricted-entry intervals begin. DPR has proposed to prohibit strip tarping in NAAs, however DPR should consider allowing the method. There is insufficient justification for prohibiting this method and imposing the costs of unnecessary tarping of portions of fields that have not been fumigated. Section 6447.3(6)(G), DPR needs to clarify the pressure testing procedures to obtain "a maximum pressure of 50 pounds per square inch." ***Comment is not relevant to the modified text - no response necessary.***	10B, 21B
2-35	In section 6448.1, DPR needs to clarify the reentry condition for the "three post-fumigation water treatments." This application method will not be practical for many crops. Similarly, DPR needs to clarify how the 0.20 inches of water is to be calculated. ***These comments pertain to implementation of the regulation – no response necessary.***	21B
2-36	Section 6449.1 provides that chloropicrin applications must be made in conjunction with the methods for methyl bromide and 1,3-dicholorpropene as referenced in Sections 6447.3 or 6448.1. Section 6448.1(c)(7)(A) regarding drip systems states "…and the pressure variation in the drip tape throughout the field must be less than three pounds per square inch." Acceptable pressure variations in the drip tape are more appropriately limited by performance standards of individual drip tape specifications. Variations greater than three pounds per square inch should not be precluded by regulation if performance of current or future technologies can adequately accommodate those variations. CMTF suggests the following language: "The pressure must not exceed the pressure rating of the drip tape, and the pressure variation in the drip tape throughout the field must be within manufacturer's specifications." ***Drip tape is designed to deliver irrigation water. Acceptable variation for irrigation water may not be acceptable for chemigation of pesticides.***	21B
2-37	CMTF appreciates that DPR has revised the regulations to clarify that the exception for "tree-hole" application is applicable to chloropicrin. There is, however, a need to clarify the language. The proposed regulations state that tree-site replant applications "less than one contiguous acre are not considered field soil fumigations." In the context of the application method it is not clear what DPR means by "contiguous acre ", and whether this low emission application method is allowed	21B

	in an NAA during the relevant time frame in fields larger than one acre. DPR should make clear that the method is allowed. ***DPR uses the common definition of contiguous: being in actual contact; touching or connected throughout in an unbroken sequence. DPR will provide guidance to county agricultural commissioners on situations when the exemption applies and does not apply. While exempted, this method is not considered low emission and cannot be used for applications greater than one acre.***	
2-38	Section 6449.1 is unclear as to the allowed use of chloropicrin in combination with 1,3-dicholorpropene for nontarped/deep/broadcast or bed, when applied consistent with the specifications in section 6448.1. DPR has not included emission factors for chloropicrin deep shank application methods. These non-tarped deep applications are currently used and critical to crops such as tree and vine replant, tomatoes, peppers and potatoes. At a minimum the regulations should be clarified to allow chloropicrin to be used in combination with 1,3-dichloropropene as described in 6448.1(c)(5). DPR should delete the reference to 6448.1(c)(5) in 6449.1(b) and should assign an emission factor for deep applications of 1,3-dichloropropene and chloropicrin in both formulated products and co-injections. ***The regulation does not include emission ratings for any fumigant or application method, so this is not an indication that chloropicrin deep shank methods are prohibited. However, section 6449.1(b) prohibits untarped deep applications with fumigant products that contain chloropicrin as the sole active ingredient, or products that contain mixtures of methyl bromide and chloropicrin. Untarped deep applications are allowed for products that contain mixtures of 1,3-dichloropropene and chloropicrin.***	7B, 21B
2-39	The emission factors proposed by DPR in its September 29, 2007 Memorandum should be used on an interim basis only to allow DPR to more fully consider existing data, as well as applicable data that may become available through the on-going work of numerous researchers in California and other states related to methyl bromide alternatives. ***DPR agrees. Section 6452.4 specifies that DPR will update the emission ratings each year by publishing them in annual report.***	21B
2-40	DPR has proposed to eliminate all non-tarped application methods where chloropicrin is the sole active ingredient. DPR stated in the Initial Statement of Reasons for the regulations that "these methods have higher emissions than tarpaulin methods, and it is feasible for all applicators to switch to a tarpaulin method." These statements are not consistent with the data or real world agriculture. For example, the data indicate that the non-tarped deep (18 to 24 inches) application method should have an emission factor of 10 percent. Moreover, shank broadcast, deep tarped application methods are not practical for chloropicrin since it will require an application tractor and a separate tarping tractor. Unlike methyl bromide which only requires two deep injection shanks, chloropicrin must be injected on 12" centers, requiring a separate application tractor. The use of two tractors is not practical due to various logistical and cost issues. These non-tarped uses are critical for	16B, 21B

	certain crops such as tree and vine replant in the San Joaquin Valley. Experiments conducted by USDA-ARS and University of California researchers have indicated that chloropicrin, as the sole active ingredient, is one of the most promising methyl bromide alternatives for controlling orchard replant disorder. DPR must reexamine its assumptions in light of the existing data and correct the proposed regulations. ***DPR disagrees that the emission rating for non-tarped deep applications of chloropicrin should be 10 percent. The September 29, 2007 memo by Barry, Spurlock, and Segawa describe the data DPR used to assign an emission rating of 64 percent. A separate tarping tractor is frequently used for other fumigation methods.***	
2-41	We understand that DPR is intending to eliminate specific application methods with unacceptably high emission rates and that each of the different fumigants will lose certain application methods in section 6447.3 Notwithstanding our comments on reactivity which we will re-address below, we can generally understand that if there are unacceptably high emissions from certain methods they should be targeted, however, we do not see that the Department has supported this premise. ***Comment is not relevant to the modified text - no response necessary.***	18B
2-42	Section 6448.1: The optimum use of 1,3-dichloropropene (1,3-D) does not include a water seal 30 minutes after application. In fact, this is detrimental to the efficacy of the product. ***The water treatments required for some 1,3-dichloropropene applications may decrease efficacy, but are necessary to reduce VOC emissions.***	12B
2-43	Section 6450.1: Since July 13, 2007 when comments were due on the first proposed regulations, there have been two reports of significance released that should persuade DPR to permit nighttime fumigation: John S. Sanders, September 29, 2007 memo and a report by Sullivan Environmental Consulting, Inc. (SEC). Nighttime fumigant application is not a VOC problem and should be moved to the MITC buffer zone proposal. Contrary to the Wofford study, which was a chemigation study, the SEC study found that when the product is applied by shank / compaction (followed by water sealing) that very well controlled emissions were found. Remarkably, the focus of this control is being done under the auspices of reducing VOCs emissions. DPR has no proof that nighttime applications of metam create anymore VOCs than daytime applications. Therefore, this regulation is baseless for reducing VOCs. It is a regulatory health and safety concern. ***DPR disagrees. Based on the available monitoring data, metam night applications have higher VOC emissions than day applications, at least for sprinkler applications. The Sullivan Environmental Consulting study is the first that measured emissions of metam shank applications at night. DPR is evaluating this study that was submitted in October 2007.***	12B
2-44	The memo to John Sanders from Barry et al., dated 29 September 2007, regarding emissions adjustment issues contained revisions to the assumptions DPR used on the frequency at which various fumigation application methods were used. We	10B

	agree with DPR's refined MUF estimates that for 1990/91 methyl bromide and chloropicrin applications, one-half of all strawberry, row, vegetable, and nursery crops were fumigated using a shallow injection broadcast method with a high permeability tarpaulin or no tarpaulin, and one-half were conducted with a shallow injection bed method and a high permeability tarpaulin. Previously, DPR assumed that, aside from strawberry, these crops were 100 percent broadcast treated in 1990/91, which was inaccurate. However, some of the revised MUF assumptions still need refinement. Specifically, DPR continues to assume that for 2004 methyl bromide applications, one-half of the strawberry applications were conducted with a shallow injection broadcast method and a low permeability tarpaulin, and one-half of the strawberry applications were conducted with a shallow injection bed method and a low permeability tarpaulin. This is inaccurate, as previously explained to DPR by TriCal, Inc., the California Strawberry Commission, and the Alliance for the Methyl Bromide Industry (AMBI). The VOC inventory of 2004 should be used to reflect what the current status of fumigant use is so that we know what reduction measures may need to be implemented. For strawberry in Ventura County, for 2005 and all following years, methyl bromide applications were and will be 100 percent tarped broadcast, as provisioned by their annual Critical Use Exemption approvals. There is no longer any bed fumigation with methyl bromide in most areas of California; statewide there is a small amount of bed fumigation in Santa Maria and northern California, estimated at less than 5 percent of overall acreage. The areas that still continue to use some bedded tarp applications of methyl bromide are not in any of the three NAAs. Therefore, DPR's methyl bromide VOC inventory for Ventura County is overstated by approximately 0.64 tons/day (tpd), where 0.64 tpd is the difference in emissions between bed fumigation (100 percent loss) and broadcast (48 percent loss). The same applies to non-drip-applied chloropicrin on strawberry. Finally, DPR's assumptions for methyl bromide deep applications are inaccurate. DPR currently assumes that 100 percent of the deep-applied methyl bromide is applied in conjunction with low-permeability tarp. This may be true for fields that are in close proximity to occupied structures, such as lemon orchards in Ventura County, but this is untrue for many orchards in the San Joaquin Valley that are not close to occupied structures. TriCal, Inc. estimates that perhaps 50 percent of the deep methyl bromide applications in the San Joaquin Valley are done without tarps, and 50 percent of the applications are done with tarps. Preserving non-tarped, deep methyl bromide applications is essential. ***DPR revised the method use fractions for 1990/91 based on the comments. DPR will revise the 2004 method use fractions in the annual emissions report. These calculations are time-consuming and no longer affect the regulation.***	

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Emissions

2-45	The regulations must apply with equal force to the Ventura NAA. ***Circumstances warrant phasing in the targeted reductions in Ventura. Adoption of the lowest emitting application methods available is already widespread in that county and there are fewer options for obtaining additional reductions than in other areas. The proposed regulations do not alter the SIP.***	2B
2-46	While we support removing the emission factors from the proposed regulation, we do not know what the process will be for establishing emission factors and what the trigger will be for establishing a low emission versus high emission factor. ***As specified in section 6452.4(a)(5), DPR will establish emission ratings based on scientific data. The regulations do not use the terms "high" or "low" emission factor. Emission ratings will be set in the report described in section 6452.4 that will be subject to a 45-day public comment period. Emission ratings for interim methods will be determined by the process described in section 6452. Only those methods that have emissions no greater than the methods currently allowed in the San Joaquin Valley, Southeast Desert, and Ventura NAAs for that fumigant will be approved.***	4B
2-47	The agricultural community has increasingly used new technologies such as drip formulations, deeper shank injection, improved soil moisture conditions, tarps and integrated pest management (IPM) programs to mitigate emissions. The Department should take into consideration the emission inventory of IPM activities that have lowered on farm emission factors since 1990. This should be considered as part of meeting the 20 percent reduction goal. Since 1990, the average application rates have been reduced by approximately 10 percent. We are pleased to see the revised proposal has amended the original proposal to limit the use of “low emission” application methods only to apply to the NAA areas and not the entire state. ***DPR does take into account integrated pest management activities that reflect reduced use and emissions.***	4B
2-48	Under section 6452.2, the allocation program is triggered and the secretary establishes limits on fumigant emissions for individual growers in NAAs that exceed 80 percent of the emissions benchmark based on the emissions inventory report. It is highly unusual for an increase or decrease in fumigants or other VOC emitting pesticides as great as 20 percent to occur in a single year. Given the improvements in technology that mitigate fumigant emissions and the fact that registrants and DPR are finding ways to reduce nonfumigant emissions going forward, a 10 percent cushion, instead of a 20 percent, should be adequate to meet the needs of complying with the judge’s order. ***Using 90 percent of the benchmark as the trigger for fumigant limits would likely cause unacceptable exceedances of***	4B

	the benchmark and DPR's SIP commitment. DPR's analysis of historical data indicates that pesticide VOC emissions increase from one year to the next by more than 10 percent approximately 30 percent of the time. If DPR uses 90 percent of the benchmark as the trigger for a fumigant allowance, the benchmark would be exceeded for approximately 30 percent of the years.	
2-49	Under the proposal there are two options (sect. 6454.2) for the treatment of Ventura NAA. Though we do not think Ventura should be included at all in the regulations because overall the goal of the 1994 SIP has been achieved in Ventura, the final regulation should at minimum mirror the ARB decision of September 27, 2007 that has established the phase-down of 1.3 tons per day. In addition, option 2, by DPR's own analysis, will result in taking land out of agricultural production and significant economic impacts to Ventura County growers, employees and the community at large. Loss of agricultural production will also increase the pressure for development with significant adverse environmental impacts. ***See response to comments #310, #317, and #322 - Attachment A.***	4B
2-50	Option 2 does not meet the test of "Necessity" (Government Code section 11349(a)), in that by DPR's estimated use of low emission methods and the provisions of Appendix H of the 2007 SIP will result in the reduction of emissions required by the 1994 SIP and Judge Karlton's order. ***See response to comments #310, #317, and #322 - Attachment A.***	4B
2-51	Sacramento Metro and South Coast should be deleted from section 6448. These ozone NAAs are in compliance with DPR's pesticide VOC emission reduction obligations, even when emission estimates include highly conservative assumptions of 100 percent fumigant emission. Unnecessary inclusion of these areas in this regulation creates costs and resource constraints for those who use fumigants and incur reporting obligations, as well as for those who will ultimately pay for the bureaucracy proposed to implement this regulation. As noted in comments related to 6452.2, even greater unnecessary economic, agricultural and environmental disruptions could occur if exceedance of the proposed 80 percent trigger for establishment of emission limits occurred and the allocation scheme described in 6452.3 was initiated. ***The Sacramento Metro and South Coast NAAs must be included in the regulation sections describing the application methods to correctly account for the emissions. The SIP requires DPR to maintain a pesticide emission inventory for all five NAAs, including Sacramento Metro and South Coast. DPR's emission inventory adjusts fumigant emissions based on the application methods (emission ratings). DPR has determined the emission ratings for the specific application methods included in the regulation, based on the available monitoring data. Application methods not included in the regulation have unknown emissions, and DPR cannot account for them in the emission inventory.***	7B
	VOC Emissions Inventory Benchmarks must be amended to correct for a baseline that does not include significant use of 1,3-D which was temporarily suspended at this time.	7B

	1990/ 91 is not a "biased" baseline. 1990 was established as the baseline year after extensive public process culminating in U.S. EPA's approval of the pesticide element of the SIP in 1997. The court established 1991 as the baseline year based on its interpretation of the SIP. 1990 is assumed to be an appropriate baseline for the 1994 SIP measures because it represents what emission levels that were actually being achieved prior to any additional controls being imposed under the Clean Air Act Amendments (CAAA) of 1990. The SIP, and the CAAA of 1990, was meant to advance the State beyond what was already being achieved (in the case of pesticide VOC emissions, by 20 percent). If the industry believed 1990 was an atypical year that did not represent overall pesticide VOC emissions prior to CAAA controls, because of some extraordinary, temporary circumstance, it should have raised that issue during the SIP planning process in the early 1990's. Moreover, it is unclear if 1990 was an atypical year for overall pesticide VOC emissions. At this point the SIP controls the baseline year.	
2-52	Establishment of VOC emission limits for areas that maintain emissions below benchmarks (i.e. Sacramento Metro and South Coast), and the proposed implementation of emission allowances per 6452.3 for those areas if they exceed 80 percent of benchmarks is unjustified, unnecessary and would be economically, agriculturally and environmentally disruptive. Costs and resource demands for growers and the state to comply with burdensome bureaucratic processes in the absence of actual exceedances provide no environmental benefits and dilute existing resources. It should not be implemented based on a hypothetical future exceedance. ***DPR cannot ensure that pesticide VOC emissions do not exceed the benchmark without a trigger.***	7B
2-53	To the extent any allowance program is justified, having a threshold to uncouple an allowance program for areas currently exceeding benchmarks (i.e. San Joaquin Valley, Southeast Desert and Ventura), that achieve significant reductions in emissions to the benchmark, is appropriate. Due to the significant negative economic, agricultural and environmental implications of mandated limits, identification of a trigger below the benchmark to deactivate the allowance program would be an incentive for emission reductions. The trigger should be achievable in order to be a realistic incentive. A reasonable trigger would be 90 percent. Given the emerging market dynamics with respect to increased availability of reduced VOC non fumigant pesticides, incentives to reduce fumigant emissions and the opportunities to refine existing non fumigant emissions, deactivation of the allowance program at or below a 90 percent benchmark level is justified. ***Using 90 percent of the benchmark as the trigger for fumigant limits would likely cause unacceptable exceedances of the benchmark and DPR's SIP commitment. DPR's analysis of historical data indicates that pesticide VOC emissions increase from one year to the next by more than 10 percent approximately 30 percent of the time. If DPR uses 90 percent of the benchmark as the trigger for a fumigant allowance, the benchmark would be exceeded for approximately 30 percent of the years.***	7B

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2-54	With respect to Option 1 and Option 2 for Ventura, DPR should not implement VOC emission regulations that decrease crop acres in any Ozone NAA Area. There is no plausible environmental justification for such an action. Within the bounds of the Department's discretion under the court order, they should only propose the least disruptive regulation. In the context of this proposal, at a minimum, that would suggest deletion of Option 2 from the proposed regulation. ***See response to comment #322 - Attachment A.***	7B
2-55	In section 6452.2, calculation of field fumigant VOC emission limits fails to account for correction factors that should be made to nonfumigant pesticide applications. Nonfumigant pesticide emissions are estimated based on pounds used multiplied by the VOC content (emission potential) for each product. The VOC content is calculated based on overly conservative laboratory methods that are not reflective of field conditions. Just as fumigant VOC content of fumigants (100 percent) are corrected to reflect application methods (emissions ratings), so too should nonfumigants emissions be corrected to reflect application methods, atmospheric availability, compartmentalization, and/or environmental fate. Many soil-applied herbicides are soil incorporated which significantly reduces VOC emissions. Similarly, significant changes in solvents since the 1991 baseline have resulted in formulations that are less available atmospherically to form ozone. Suggest changing the formula as follows: "Nonfumigant pesticide product emissions will be the summation of the pounds of each pesticide product used multiplied by the VOC content (emission potential) multiplied by an emissions factor for the specific product, use pattern, or application method." ***DPR based the fumigant emission ratings on dozens of field studies. No such studies are available for nonfumigant pesticide products. While field emission data is available for a few active ingredients, no data is available for the inert ingredients.***	7B
2-56	Under the current proposal, the Director shall calculate the field fumigant VOC emission limits by subtracting the nonfumigant pesticide VOC emissions from the total agricultural and structural VOC emissions inventory benchmarks. Since nonfumigant and fumigant emissions inventory will have mathematical relationship by either directly increasing or decreasing permissible fumigant emission amounts within each NAA, it is absolutely critical that DPR has the most accurate emissions from the nonfumigant side. ***It is premature to adjust the nonfumigant emissions. The analytical method and experiments described show promise, but the experiments did not include any definitive field validation data, and did not provide data for any specific pesticide products. In addition, DPR believes that a tiered approach is incompatible with its emission inventory. Since the SIP requires VOC reductions on a relative basis, the emission inventory must be calculated on a consistent basis. Using one tier for some pesticides and a second tier for other pesticides does not provide a consistent method for calculating emissions.***	9B

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2-57	DPR should omit the Sacramento Metro and South Coast NAAs in their fumigant emissions strategy when there is no evidence to demonstrate that these 2 NAAs had violated or were not in compliance with the 1994 SIP. ***Using 90 percent of the benchmark as the trigger for fumigant limits would likely cause unacceptable exceedances of the benchmark and DPR's SIP commitment. DPR's analysis of historical data indicates that pesticide VOC emissions increase from one year to the next by more than 10 percent approximately 30 percent of the time. If DPR uses 90 percent of the benchmark as the trigger for a fumigant allowance, the benchmark would be exceeded for approximately 30 percent of the years.***	9B, 15B
2-58	WPHA supports the phase-in concept behind Option 1 for the Ventura NAA. However, the salient argument that has been cited by DPR to justify to the federal court to accept this proposal: *"economic dislocation and pressure to develop the land for non-agricultural uses"* are highly relevant to the SJV NAA as well. Therefore, to reiterate, WPHA would suggest that DPR progressively phase-in the implementation of these proposed VOC pesticide regulations uniformly and concurrently within the 3 applicable NAAs of SJV, SE Desert and Ventura. Has DPR considered the disadvantageous environmental impact resulting from the loss of productive farmland and conversion to urban/commercial development which would be applicable to all the NAAs. Accordingly, WPHA supports a comprehensive scientific and economic analysis that has been initiated by agricultural commodity organizations. It would behoove Cal/EPA and the California Department of Food and Agriculture (CDFA) to evaluate such an important independent study before these potentially onerous and deleterious regulations are imposed on California's vibrant and robust agricultural industry. ***ARB approved the Ventura phase-in based on circumstances that do not apply to the other areas. In Ventura, VOC reductions in excess of those required from mobile sources that have already been achieved are to be "loaned" to satisfy the VOC reductions from pesticides until the end of the phase-in period. There are no such excess reductions in the San Joaquin Valley or Southeast Desert NAAs. In addition, the federal court ruled on December 12, 2007 that the regulations must require the full reduction in 2008 even in Ventura.***	9B
2-59	As previous stated in our comment letter to DPR on July 13, 2007, industry's interpretation that the federal court order stated that the DPR is only mandated to complete the regulation package NLT January 1, 2008. Accordingly, we believe that DPR has the authority and latitude to propose a phased approach to achieve the goal if it is justified. Additional time will allow a more refined, accurate and less deleterious regulations for California agriculture and the state's economy. WPHA contends that the implementation of the fumigant emission limits in the regulation should be progressively phased-in uniformly and concurrently for all of the applicable NAAs. This would allow DPR to incorporate the appropriate fumigant emission refinements and further refinements of the nonfumigant emissions like those from EC ingredients. ***See response to comment #16 - Attachment A, and #2-58 above.***	9B

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2-60	DPR proposes two different options for determining the VOC emission limits in the annual inventory report, one that includes the ARB action to transfer surplus VOC credits from automobiles to pesticides, and one that does not. In the Court Order, the Judge stated his intention to not be involved in any micromanagement aspects of the regulations. DPR should not rely on the Judge to make this decision, and should decide for itself if the VOC transfer is the right approach or not. Since ARB has already agreed to the transfer, DPR's decision should be clear. The "either/or" position DPR has taken is confusing and makes it impossible to determine the impacts of the proposed regulations. The difference between the two options is significant, as it will dramatically impact fumigation and potential application change requirements in Ventura County. ***See response to comments #317 and #322 - Attachment A.***	10B
2-61	We understand that the 80 percent benchmark (of VOC emissions within all NAAs) is more of a concept than scientific or field need. DPR should allow emissions in a NAA to exceed 90 percent as a benchmark before any allocation/allowance system is implemented. ***Using 90 percent of the benchmark as the trigger for fumigant limits would likely cause unacceptable exceedances of the benchmark and DPR's SIP commitment. DPR's analysis of historical data indicates that pesticide VOC emissions increase from one year to the next by more than 10 percent approximately 30 percent of the time. If DPR uses 90 percent of the benchmark as the trigger for a fumigant allowance, the benchmark would be exceeded for approximately 30 percent of the years.***	4B, 9B, 10B, 12B,14B, 15B, 16B 17B, 21B
2-62	Section 6452.2 presents two options for establishing field fumigant VOC emission limits in the Annual Volatile Organic Compound Emissions Inventory Report issued for areas that exceed 80 percent of the emissions benchmarks. DPR should implement Option 1 as it will allow for phase-in implementation of the final emissions target in Ventura between 2008 and 2012, and prevents acres from going out of production and minimizes the economic impact to the industry. ***See response to comments #317 and #322 - Attachment A.***	15B
2-63	DPR needs to supply data to substantiate the value of a tarp fumigation, which by the way many dumpsites no longer wish to receive. ***Comment not relevant to the modifications. No response necessary.***	20B
2-64	Moving the emission factors for application methods and fumigants out of the regulation makes sense given the need for much more review and updating of the factors as new data comes along. However, it is not clear how and when DPR will regularly update the list. What incentive does DPR have to keep on working on the emission factor list?	23B

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	Section 6452.4 specifies that DPR will update the emission ratings annually, and make these available for public comment.	
2-65	It is our understanding that more data for review for methyl bromide as well as chloropicrin is available or has not been addressed in a fashion that the logic can be followed. With the supplemental data on the emission factors there is nothing explaining what data was or was not reviewed to revise the list, other than for 1,3-dichloropropene. ***The September 29, 2007 memo by Barry, Spurlock, and Segawa describes the studies that DPR included and excluded from its analysis.***	23B
2-66	The overall regulation and section 6452.2 arbitrarily only restrict fumigants. While all pesticide VOC emissions are counted, only fumigant emissions are restricted. Numerous DPR documents show that 67 percent of the pesticide VOC emissions in the largest NAA are from nonfumigants. In fact, the second largest pesticide VOC emission in the largest NAA is not a fumigant. In other words, the modified proposed regulation arbitrarily ignores VOC emissions from a majority of the pesticide sources. DPR's September 29, 2006 revised technical memo by Terrell Barry, et al, indicates that nonfumigant pesticide VOC emissions in the San Joaquin Valley are 67 percent of the total pesticide VOC emissions for 2004. Also, DPR's October 24, 2006 Update to the Pesticide VOC Inventory shows that the Structural Pest Control industry is within the top 6 sources of annual pesticide VOC emissions for four out of five of the NAAs. Exempting pesticide VOC sources such as these from the regulation appears arbitrary. ***DPR has initiated a separate regulatory action to reduce VOC emissions from nonfumigants, through reformulation of high-VOC products. However, reformulation takes several years to complete, too long to meet the court ordered reductions. Additionally, fumigants contribute 70-90 percent of the pesticide emissions in Southeast Desert and Ventura. The SIP obligations cannot be met without reducing fumigant emissions in these areas.***	13B
2-67	Section 6452.2 (b)- The modified proposed regulation calculates nonfumigant pesticide product emissions as the "summation of pounds of each pesticide product used multiplied by the VOC content (emission potential) for the specific product." This fails to account for scientific studies documenting that a portion of the VOC content further degrades based upon application method and crop type as well as fails to account for scientific standards used by EPA and ARB to adjust for reactivity. As a result, the total pesticide VOC emissions will be exaggerated and fumigant emissions reduction will be unnecessarily increased. ***Unlike fumigants, there is no data available to DPR that measures VOC emissions under field conditions for the active and inert ingredients in nonfumigant pesticide products.***	13B
2-68	DPR has proposed two different options for determining the VOC emission limits in the annual inventory report. This "either/or option" is confusing and makes it impossible to determine the impacts of the proposed regulations. The	21B

	difference between the two options is significant as it will dramatically impact the fumigation in the Ventura NAA. Moreover, this confusion is not necessary as Option 1, the phase-in approach, is the only option consistent with the ARB actions at its September 27, 2007 meeting. Moreover, Option 1 would not result in "backsliding" from the 1994 SIP, but rather would only change the source of the reductions. There is, therefore, no necessity to impose the significant burdens resulting from Option 2. ***See response to comments #317 and #322 - Attachment A.***	
2-69	DPR's benchmark calculations in section 6453.2 lack clarity. It is not possible from the information provided to determine the source of all of the benchmarks listed nor how DPR calculated the applicable benchmarks. Some of the information may have been obtained from Air Resources Board's Proposed State Strategy for California's 2007 State Implementation Plan, Appendix H – Revised Proposed Revision to the Pesticide Element of the 1994 Ozone SIP for the Ventura County NAA , August 13, 2007 (Appendix H), but this is not clear. In addition, Appendix H refers to ROGs and DPR's regulations refer only to VOCs. DPR needs to clarify the inconsistency. ***Appendix H was not used to determine the benchmarks. The benchmarks are described in Table 23 of the September 29, 2007 memo by Barry, Spurlock, and Segawa.***	21B
2-70	It also is not clear how DPR converted pounds-per-season to tons-per-day and the conversions do not appear to have been performed in a consistent manner. For example, in Option 2 for the Ventura 2008 calculations DPR specifies a total pesticide limit (2.60 tpd) and a field fumigant limit (2.00 tpd). However, in the table under subsection (c) DPR lists 734,000 lbs, which does not equal 2.00 tpd. ***The difference is due to rounding.***	21B
2-71	Moreover, it appears that DPR has not applied a consistent rounding methodology. In some cases DPR rounds its ton-per-day numbers to three significant figures and in others only two. No explanation is apparent for the inconsistent treatment. In the note to the section DPR references a fumigant emissions limit for Ventura of 1.9 tons-per-day in 2008. However, the chart in the text of the regulations references 2.00 tons- per-day. ***The 1.9 tons/day in the note is a typographical error. The correct limit of 2.00 tons/day is shown in the regulation.***	21B
2-72	Section 6452.4(a)(3) states that the Director will establish fumigant emissions limits pursuant to section 6452.2. Both the process and the specific result of that process is unclear. Without this clarity CMTF cannot provide more specific comments at this time. However given the complexity of the issues such clarity is imperative. ***Section 6452.2 specifies that DPR will calculate the fumigant limits by subtracting nonfumigant pesticide emissions***	21B

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	from the total pesticide VOC benchmarks listed in the regulation. Section 6452.4 specifies that DPR will update the fumigant limit each year and publish in annual report. This report will be available for public comment.	
2-73	DPR uses erroneous assumptions regarding the frequency at which different fumigant application methods are or were used for various crops. CMTF outlined these issues in its July 13 and September 26, 2007 submissions which CMTF incorporates by reference and will not repeat here. However, DPR cannot ignore these erroneous assumptions as they directly impact the emission inventory and the use of fumigants. ***DPR revised the frequency of use for the fumigation methods based on the CMTF comments and are reflected in the September 29, 2007 memo by Barry, Spurlock, and Segawa.***	21B
2-74	Regarding the two (2) options proposed in the modifications, this proposal is incomplete as it fails to take into account the possibility that the Court will not opine either way as to the "Options" and DPR does not address what will result in that instance. The outcome could be a regulation unlike the proposed Options and the public will not have had an opportunity to adequately comment. With no certainty as to an "Option 3", the public is left in the dark concerning the outcome of a Court refusal to come to a decision. Further, by DPR's own admission, Option 2 is not adequate because it will not allow regulated entities the time and flexibility to plan and develop strategies to meet emission limits, necessarily taking land out of agricultural production and causing further financial hardship for the industry and additional unknown environmental consequences. DPR fails to fulfill its obligation under Government Code section 11346.2(b)(3)(B) to lessen any adverse impact on small business by proposing Option 2 as an alternative, which would cause extremely harsh economic effects for small business. Using DPR's own numbers, Option 2 will immediately prevent the growing of strawberries on thousands of acres of high quality and extremely valuable farmland. DPR has a statutory duty to lessen the adverse impact on small business by establishing reasonable alternatives to the regulation. The offering of Option 2 flies in the face of this obligation especially when DPR has proposed Option 1 with substantially less negative impact on farmland due to its phased-in approach. While the Commission has issues with Option 1, it is cited in this instance to show that DPR's modifications may unnecessarily harm small business and fails to meet its statutory obligations. ***After ARB adopted a proposed amendment to the 1994 SIP that is consistent with Option 1, DPR sought a ruling from the court that Option 1 complied with its order, based in part on an analysis similar to that described by the commentor. However, the Court ruled on December 12, 2007 that the regulations must require the full reduction in 2008.***	16B, 13B
2-75	Higher value crops would suffer a greater economic hardship than those of lower value. DPR may be unknowingly perpetuating a value system that would pit the fumigant needs of one crop against another. It also provides an unfair advantage to early season crops over late season and double crops.	12B

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	See response to comment #166 - Attachment A. This system will not give preference to certain crops over others.	
2-76	This system causes growers to "hedge their bets" by encouraging them to seek the maximum allowed by DPR. Paradoxically, DPR voiced earlier concern about not wanting to encourage growers to use [more] product. Clearly, this proposal is too simplistic and fails to address economic reality across all crops. ***The permittee allowance system will allow greater requests, but not use of fumigants. If all requests in an NAA would exceed fumigant limits, all would be proportionately reduced. DPR and the county agricultural commissioners will attempt to screen for large requests that appear inconsistent with actual need.***	12B
2-77	Total VOC emissions are the common exchange value. It does not matter whether you are talking 1,3-dichloropropene, metam or chloropicrin. Thus, the only rational way to divide emissions equitably is for DPR to convert the total VOC emissions for each NAA back into product. DPR should allocate the individual products back to individual counties (using historic PUR data). The counties should assign the individual product back to the crop (using historic PUR data). ***The proposed system would provide growers less flexibility and require greater resources to administer than DPR's system. Growers may not be able change from one fumigant product to another, could not use a new fumigant product, may not be able to move fields from one county to another, and could not introduce a new crop for fumigation. The proposed system would require greater resources by county agricultural commissioners to administer.***	12B
2-78	By DPR's estimation, Option 2 does not meet the necessity standard. Option 1 is the only alternative proposed that is consistent with the Court's order and the California Air Resources Board's planning for the 8-hour ozone standard. ***See response to comments #317 and #322 - Attachment A.***	16B
2-79	The emission factors proposed by DPR in its September 29, 2007 Memorandum should be used on an interim basis only to allow DPR to more fully consider existing data, as well as applicable data that may become available through the on-going work of numerous researchers in California and other states related to methyl bromide alternatives. ***DPR agrees. DPR will update the emission ratings using the annual emission report specified by section 6452.4***	21B
2-80	The Court Order is applicable to all pesticides, not just fumigants. Nevertheless, DPR has placed the entire initial burden of the proposed emission reductions on soil fumigants and proposed a regulatory scheme that disproportionately and unnecessarily burdens fumigant registrants and growers who rely on these crop protection tools. Moreover, DPR's inventory calculations for non-soil fumigant pesticide VOC emissions is also flawed and likely overstates the emissions. DPR is proposing an emission factor of 100 percent of VOC content for nonfumigants.	21B

	The fumigant industry has substantially reduced per acre emissions in the last several years through advancements in application techniques such as drip applications, improved soil injection and improved tarping. DPR's failure to accurately assess reductions in both fumigant and nonfumigant VOC emissions has resulted in the overestimation of the current overall VOC pesticide emissions. ***DPR initiated a separate regulatory action in May 2005 to reformulate certain nonfumigant pesticides. This action will take several years to complete. These reductions will not occur in time to meet the court-ordered deadline. However, once reductions from nonfumigant pesticides are achieved, the regulation provides the flexibility to increase the fumigant limits.*** ***DPR estimates VOC emissions from fumigant and nonfumigant pesticides based on the available data. There is no available data documenting the VOC emissions from nonfumigant pesticides under field conditions. DPR's estimates of VOC emissions from fumigants accounts for advancement of application techniques, as described in the April 6 and September 29, 2007 memo by Barry, Spurlock, and Segawa.***	

Allocation

2-81	The regulations create a loophole for alternative methods of use. ***The regulations are meant to encourage rapid development and implementation of lower emission application methods. Thus, they include a mechanism to temporarily allow use of any method whose emissions is no greater than any method allowed for the same fumigant. Section 6452 sets forth this process including public notice of the Department's action. To permanently allow alternative methods would require rulemaking.***	2B
2-82	Though Sacramento Metro and South Coast do not trigger this threshold for implementing an allocation system, these areas are required under section 6624(f) and 6625 (d) to report records of use and description of methods of application. Sacramento Metro and South Coast should not be included in the proposed regulation because they are in compliance of the State Implementation Plan (SIP) required reductions. By including these areas there will be unnecessary paperwork for producers and the department to collect and review. Collecting and compiling the reporting from San Joaquin Valley, Southeast Desert and Ventura will be an overwhelming task in itself for producers and the department. Sacramento Metro and South Coast are in attainment and below the 80 percent trigger therefore they should be removed from the regulation. ***The reporting requirements provide the data to track VOC emissions from fumigants. The SIP requires DPR to track VOC emissions in all five NAAs, not just those that do not meet the SIP reduction commitments. Moreover, DPR cannot***	4B

	determine if the SIP commitments are met without tracking VOC emissions in all five NAAs.	
2-83	If allocation is based on a menu of methods, the practical application of methods should be taken into account when defining the menu options. Our concern is that growers will be limited to just "low emission" methods and at this time we do not know what methods will be approved for use. Regional differences, crop diversity and the practical application of methods in the field need to be taken into consideration when determining what methods are available to registrants for allocation. We are asking for more details regarding the allocation proposal and how it will respond to pest pressures that may require additional product one year that may not be necessary the previous year; an increase in product costs; and new products entering the marketplace. These impacts should be analyzed and known before an allocation system is set in motion. ***DPR's regulatory strategy reduces fumigant emissions using a combination of application method changes and emission limits. Since total emissions (fumigated acreage) will be limited, allowing "high-emission" methods would benefit growers who make no effort to reduce emissions at the expense of growers who use "low-emission" methods. The requirement for low-emission methods provides all growers an equal opportunity to maximize the number of acres fumigated. Consistent with the current market system, growers will select the fumigant of their choice, taking into account pest pressures, product cost, and availability of new products.***	4B
2-84	Concerned that section 6452.3 contains loophole allowing the Director to exempt fumigant permit applications for less than five acres or less from the allowance scheme. DPR's intention is to allow the possibility for exemptions for farmers with very small acreages. However, as written there are not restriction to preclude a larger land operator from subdividing land into small share-cropped operations to exploit the loophole as well as the sharecropper, and more broadly, doe not specify any criteria defining the factors the Director would consider before granting the exemption. ***The regulation gives DPR the option to establish, but does not require, a threshold (up to five acres), below which permitees would be exempted from emission allowances. It's likely that DPR would not establish a threshold for the reasons stated. However, based on current use patterns, these small fumigations have a minimal impact on VOC emissions. DPR might establish a threshold in areas where arbitrary acreage subdivisions can be prevented, or the emission allowances create an undue burden on small growers.***	5B, 13B
2-85	Section 6452.3: We understand that DPR would like to build a planning process, and then to use the permitting process to decrease the potential for fumigant emissions. However, the proposed allowance process will grossly distort the market. In essence the Department would be controlling the market and the legality of this approach is uncertain. Although this "allowance process" is an improvement over the allocation system that DPR proposed earlier, we urge the Department to reconsider this proposal. It is very onerous, complicated and would put state officials directly into farming management decisions. Also, there is a lack of specified dates for many of the key activities to take place.	14B

	The emission allowances will not distort the market. The regulation is consistent with the current market system where the grower selects the fumigant using the current criteria such as cost and efficacy. While the regulation may prohibit or add cost to certain application methods, growers still have the flexibility to select the fumigant. In addition, the registrants developed almost all of the application methods specified in the regulation, presumably accounting for the increased cost associated with fumigation. ***The regulation does not include specific dates for many activities to give DPR and the county agricultural commissioners the flexibility to account for local conditions. Different crops are grown in different areas, using different fumigation schedules. Specific dates will be set by permit conditions, based on the local cropping patterns.***	
2-86	The proposed county permit process in not practical, is not compatible with agricultural practices, and too bureaucratic for the following reasons: To ensure fumigation emission limits for NAAs are not exceeded as proposed by DPR, the growers will have to file for restricted material permits [RMPs] with a CAC each year probably around February 1st for application from May 1st - October 31st. By March 1, DPR will compile all the fumigant plans and decide if the total requested uses exceed the fumigation limit. The logic of this decision is that by managing fumigant emissions at the beginning of the year, there would be no need for real-time, in-season tracking. Currently, the traditional permit process allows the grower to file for a specific site or field with a list of [potential] restricted materials they might use. Since it is not practical or feasible to know what pesticides will be required weeks and even months from the permit filing time, the grower is under no obligation to use any of these materials. Unfortunately, DPR is proposing to change this procedure by requiring growers to declare the [actual] fumigant they plan to use. ***The regulations do not include specific dates to establish the emission limits and allowances. However, advance planning is needed because the emission allowance system regulates growers collectively, rather than individually. Plans or changes to plans by one grower will affect other growers. This is similar to several existing requirements. Growers are currently regulated collectively for methyl bromide and 1,3-dichloropropene for township caps and/or buffer zones. The commentor mistakenly implies that growers currently may change their fumigation plan at anytime by filing a supplement with the county agricultural commissioner. For many current fumigations, growers must plan in advance and are limited in the changes they can make.*** ***Growers should be able to anticipate the worst pests and maximum number of acres that they might fumigate in the upcoming year and submit an allowance request accordingly. Growers will not be penalized if they do not fumigate all of the acreage requested. Once the emission allowances are issued, growers will have the flexibility to change fumigant***	9B, 12B, 16B, 17B, 19B

	or application methods as long as it complies with the emission allowance.	
2-87	DPR has offered no provisions in the proposed regulations on how to share the unused fumigant equally with all other fumigant users located within the NAA. DPR has also not commented on whether a grower could exchange the allotment internally from one permitted field to another without losing the allotment altogether. Of course, growers may seek fumigation permits any time during the year from the CACs. But emission allocations will be managed on a first come, first served basis until the emission limit for the NAA is filled. ***The regulation provides the flexibility, but not a requirement to share unused fumigant. It's likely that DPR will not reallocate emissions, and any "surplus" emissions will go unused. The internal transfer of emission allowances from one field to another within a single permit will be at the discretion of the county agricultural commissioner. Emission allowances will not be issued on a first-come, first-served basis. See response to comment #166 - Attachment A.***	9B, 10B, 12B, 13B, 16B, 17B, 19B
2-88	It is essential for carrot and potato growers to use the best management practice (BMP) for conducting preplant sampling in every field for pests and diseases. To determine in February what pests the grower may encounter in August is simply not practical. In essence, DPR is proposing a concept totally without precedent in U.S. agriculture by requiring growers to declare fumigant applications months ahead of when the field is going to be treated. Considering DPR's past role in promoting responsible pesticide use, this proposed rule runs counter to that philosophy. DPR further perpetuates this irrational rule by forcing growers to predict [which] pests will be in a specific field. DPR is making the common mistake of assuming one fumigant can be exchanged for another. This assumption is wrong. There use is specific and interchangeability is no longer a choice because of the narrow base of remaining registered fumigants. Compounding this decision is the volumes and resulting quantities of emissions would be different. In rare instances, growers need to use both materials. The regulations should allow the flexibility for growers to switch between fumigants based on their pest management needs. If DPR finds reductions are still necessary to reduce emissions, growers would be obligated to reduce application rates, use application methods that result in even lower emissions, or treat less acreage. DPR needs to understand that mandating less efficacious methods or taking acreage out of production to meet emission limits will have serious economic impacts for California agriculture. ***The advance planning is needed because the emission allowance system regulates growers collectively, rather than individually. Plans or changes to plans by one grower will affect other growers. This is similar to several existing requirements. Growers are currently regulated collectively for methyl bromide and 1,3-dichloropropene for township***	12B, 15B

	caps and/or buffer zones. The commentor mistakenly implies that growers currently may change their fumigation plan at anytime by filing a supplement with the county agricultural commissioner. For many current fumigations, growers must plan in advance and are limited in the changes they can make. ***Growers should be able to anticipate the worst pests and maximum number of acres that they might fumigate in the upcoming year and submit an allowance request accordingly. Growers will not be penalized if they do not fumigate all of the acreage requested. Once the emission allowances are issued, growers will have the flexibility to change fumigant or application methods as long as it complies with the emission allowance.***	
2-89	In section 6452.3, growers would be required to submit information to their respective CAC and it is assumed, although not clear, that the information would be forwarded by the CAC to DPR. The information submission deadline would be determined at a later date by the CAC but it appears that a grower anticipating fumigation activities within the May 1 through October 31 timeframe would have to submit information several months in advance of the desired fumigation date. Additionally, it is likely that each CAC will create a different deadline therefore causing confusion, delay and even disapproval of requests. Different deadlines would create additional confusion for the many growers operating in multiple counties. ***The regulation does not include specific dates for many activities to give DPR and the county agricultural commissioners the flexibility to account for local conditions. Different crops are grown in different areas, using different fumigation schedules. Specific dates will be set by permit conditions, based on the local cropping patterns. If different dates create confusion, DPR can establish a single deadline based on the earliest deadline in any of the counties.***	15B
2-90	Section 6452.3: Despite the modifications and quite frankly a totally new scheme for "fumigant allowances", we still have great concerns about the allocation system that is partially described. These "allowances" would still have impacts across product lines (and within competing product lines), and will surely have legal problems. This would still be an administrative nightmare. ***Insufficient specificity to respond.***	22B
2-91	Section 6452.3(c) lacks clarity. The text of the modified regulation indicates that, "If the total allowances **requested** exceed an established fumigant emission limit, the Director will **proportionally** reduce each request to ensure that the limit is not exceeded." Does this language mean that DPR will reduce each grower, or reduce each permit, or reduce the emissions from each permit. The modified proposed regulation is unclear, and instead uses the word "requested". This section also lacks clarity in what is meant by "proportionally." We recommend that an emission per acre allowance be granted to growers and them allow growers to decide how best to utilize such an allocation on their field.	13B

	Each permittee will request a total emission calculated on information provided ~~based~~ on the number and size of the fields, fumigant(s) and application method(s), and application rate(s). Individual emission allowances will be assigned to individual permits. A single grower may have more than one permit, particularly if they have fields in more than one county. If necessary to comply with the emission limit, DPR will proportionally reduce the total emissions associated with each permit. DPR made nonsubstantive clarifying changes to subsection (b). ***Limiting the emissions on a per acre basis would not ensure that DPR meets the fumigant limits and SIP commitments.***	
2-92	Section 6452.3(d) allows the CAC amend permits, but gives no guidance for how such an amendment will be made. Is this intended to be part of a reallocation process? The language in (d) is unclear. It does not explain why an amendment would be necessary, under what conditions an amendment would be allowed, nor how DPR would incorporate amendments into the allocation process. ***Regulations do not typically include explanations for specific requirements. In this case, county agricultural commissioners would amend a permit for several reasons. Reallocating emissions might be one reason. A commissioner would also amend a permit if it was originally issued for fields fumigated prior to May. If a permit already includes an emission allowance, a commissioner would amend a permit if a grower requested to transfer emissions from one field to another. Agricultural commissioners have the discretion to amend permits, as long as the emission allowances are not exceeded.***	13B
2-93	Section 6452.3(b) states, "a permittee shall submit information to the commissioner by a date designated by the commissioner". Growers (permittees) need to make a series of business decisions within certain timelines. Time is of the essence, and the lack of clarity in section (b) is untenable. Assuming that DPR will make decisions within 30 days of application by growers, then a January deadline each calendar year should be established for permittees to submit applications for fumigation and a deadline of February of each year should be imposed on the Department to issue allowances. ***The regulation does not include the specific dates described by the commentor. The regulation does not include specific dates for many activities to give DPR and the county agricultural commissioners the flexibility to account for local conditions. Different crops are grown in different areas, using different fumigation schedules. Specific dates will be set by permit conditions, based on the local cropping patterns. Growers should be able to anticipate the maximum number of fields and acres that they might fumigate in the upcoming year and submit an allowance request accordingly. Growers will not be penalized if they do not fumigate all of the acreage requested.***	13B
2-94	Section 6452.3 does not establish a deadline for DPR to issue the report and thus is unclear. As described above, regulatory	13B

	decisions must be made as early as possible in a timely fashion. A deadline of December of each year appears to be necessary. ***See response to comment #2-93.***	
2-95	The allocation proposal lacks clarity in that regulated parties cannot make business decisions in a timely manner. Under the proposed scheme there are no dates or timelines for submission of applications, reviews or approvals. It is not clear when DPR will determine if reductions to an application must be made. A grower must make many decisions, each with significant economic consequences, and it is not clear from the proposed regulations that the grower will know his/her fumigant allocation at that time the decisions must be made. Also, as explained below, there are no provisions for addressing a pest occurrence emergency, which is a real and continuing threat. This is inconsistent with the federal pesticide law. ***See response to comment #2-93. This regulation is not inconsistent with federal pesticide law. Moreover, the Governor has legal authority to waive this or any regulation for an emergency.***	21B
2-96	The proposed allocation scheme fails to accommodate an unforeseen pest infestation or unanticipated soil-borne disease pressures. Although such practices could easily result in allocations that are not used, the DPR proposal provides no method for reallocation. Such a burdensome allocation system is not necessary. ***The regulation provides the flexibility, but not a requirement to reallocate any "surplus" emissions.***	21B
2-97	In lieu of the proposed allocation system, DPR should calculate and provide a crop specific average per acre emission limit for each NAA during the May 1 to October 31 time period to the CACs. These per acre emission limits would be enforced through the restricted materials permit process. This system would require significantly less resources from the state, the counties, and growers to implement. ***Limiting the emissions on a per acre basis would not ensure that DPR meets the fumigant limits and SIP commitments.***	21B
2-98	In the May 18, 2007 version of the VOC regulation proposed by DPR, we objected to the uncertainty and lack of clarity of the registrant based allocation system as proposed and the criteria by which it would operate. The government managed scheme described in 6452.3 of the current version is similarly flawed. The current proposal fails to address the significant uncertainty faced by tree and vine growers attempting to comply with 6452.3(b) that cannot accurately predict actual needs in March or April for fumigation in September and October of that same year. Estimates submitted will logically be large enough to anticipate what might be needed rather than a more refined estimate later in the year. Such overestimates will lead to a lack of clarity and an exaggerated proportional reduction as described in 6452.3(c). No process is described to address this inefficiency resulting in acres that need to be treated unnecessarily compromised or out of production. We	7B

	suggest refinement and implementation of the registrant allocation model proposed in the previous version of proposed regulations. ***No system, including the registrant allocation system, will address the issues described by these comments. Both the DPR and registrant allocation system will have the same scheduling constraints. The only other method to manage emissions is a "track and stop" where fumigations are prohibited once the limit is reached. It's unlikely that sufficient fumigant would be available for September and October applications under this first-come, first-served system.***	
2-99	We still have grave concerns about the whole concept of an allocation system for soil fumigants. However, we do believe that the current proposal is the fairest in terms of giving all growers the opportunity to access some soil fumigant as long as they plan for the need in the first month or two of the calendar year. However, this proposal still needs much more discussion to sort out the details and exactly how to make it run efficiently. We highly doubt the allocation system can be in place by January 1, 2008. ***The comments seem to be implementation issues. No response is necessary.***	23B

Annual Emissions Inventory Report

2-100	DPR is proposing that the draft emissions report would require an unprecedented 45-day public comment period each year to purportedly allow for submissions of written statements or arguments to the Director for review prior to finalizing the VOC Emissions Report. The function of this public comment period is unclear. Is DPR planning to respond to all comments? If modifications are made to the report in response to comments, will there be an additional comment period? This process has the potential to serve as an administrative bottleneck that could prevent needed and timely fumigation treatments. ***DPR has the discretion to respond to comments and/or provide an additional comment period, but is not required to.***	9B, 15B
2-101	DPR's estimated emissions inventory is flawed. The use of 2004 PUR data coupled with emissions factors proposed by DPR provide a questionable baseline from which all corresponding regulations are developed. ***As required by the court order, DPR uses the 1991 emissions as the base year for determining the pesticide VOC emission benchmarks.***	15B
2-102	The Sacramento Metro and South Coast ozone NAAs should be removed from the emissions inventory report for the reason that they are in compliance with DPR's pesticide VOC emission reduction obligations.	15B

15-DAY COMMENTS

	The SIP requires DPR to track VOC emissions in all five NAAs, not just those that do not meet the SIP reduction commitments. Moreover, DPR cannot determine if the SIP commitments are met without tracking VOC emissions in all five NAAs.	
2-103	DPR is requiring growers to report the method used for each fumigant application performed in each NAA from May 1st - October 31st. DPR will compile Pesticide Usage Reports (PUR) data and include them in the Annual Emission Inventory Report. We have no objections to DPR using the PUR data for evaluating the effectiveness of the proposed regulations. However, there is concern the lag-time (two-years) for completed reports is excessively long and may obscure real progress. Also, these outdated values could be interpreted incorrectly for discovering which areas in California exceed the pesticide emission limits. ***The two-year lag time cannot be avoided. There is insufficient time between the end of one allowance season (October 31) and the beginning of the next (May 1) to report use, calculate emissions, determine fumigant limits, and issue allowances.***	12B
2-104	Few will argue that VOC emissions from pesticides weigh heavy on the [entire] California agriculture industry. According to DPR estimates, 6.3 percent of all VOCs emitted in the San Joaquin Valley NAA come from pesticides. Of this, DPR assigns one-half to nonfumigant pesticide use. However, they have no plans to allocate nonfumigant pesticides, much less change their field use patterns as they have with fumigants. Instead, they plan to develop emission targets and set limits on emissions from fumigant applications by individual growers. Thus, DPR is unfairly singling out a minority of California growers to pay a disproportionate share of the burden in reducing pesticide VOCs in California. ***DPR initiated a separate regulatory action in May 2005 to reformulate certain nonfumigant pesticides. This action will take several years to complete. These reductions will not occur in time to meet the court-ordered deadline. However, once reductions from nonfumigant pesticides are achieved, the regulation provides the flexibility to increase the fumigant limits.***	10B, 12B
2-105	Both fumigant and nonfumigant pesticides comprise the Annual Inventory Report. Nonfumigants use unrealistic emission factors without application method adjustments inflating VOCs. Therefore, we feel that these pesticides will detract from the achievements in emission reductions made by growers and should not be included in the overall 80 percent VOC reduction threshold to stop fumigant allocations. ***DPR relies on the best available data to estimate emissions from nonfumigant pesticides. Unlike fumigants, other pesticides have few studies that measured emissions of active ingredients under field conditions, and no data for inert ingredients. The SIP does not allow DPR to separate pesticides into different sub-groups with different limits.***	10B, 12B

15-DAY COMMENTS

General

2-106	Applaud DPR for amending the proposed VOC regulations to be limited in use to only within the NAAs, and only during the months of May through October in section 6450. To further refine this improved targeted direction, we encourage DPR to remove the Sacramento Metro and South Coast NAAs from the DPR VOC emissions reductions strategy and to remove their obligations for use reporting, etc. Sacramento Metro and the South Coast are in compliance with the pesticide VOC reduction requirements and would only be subjected to additional unjustified regulatory costs and unnecessary confusion. ***The SIP requires DPR to track VOC emissions in all five NAAs, not just those that do not meet the SIP reduction commitments. Moreover, DPR cannot determine if the SIP commitments are met without tracking VOC emissions in all five NAAs. The method restrictions for Sacramento Metro and South Coast NAAs are also needed for tracking purposes. The application methods allowed in Sacramento Metro and South Coast are those for which DPR can estimate emissions.***	7B, 9B,10B, 14B, 15B, 19B, 23B
2-107	Proposed regulations are unenforceable. ***The proposed regulations are enforceable. They impose legally binding requirements on pesticide users, violation of which would expose them to civil and criminal penalties. Compliance would be monitored and ensured through the existing restricted materials permit program. Existing law provides access to records. Existing law requires users to comply with all permit conditions. Monitoring is unnecessary to ensure compliance. As described in the regulations, area-wide emissions are calculated from quantity used multiplied by the emission potential or emission rating (corresponding to application method). Permits conditions would specify method and limit quantity.*** ***The federal Clean Air Act's provisions requirements for SIPs are outside the scope of this rulemaking proceeding.***	2B
2-108	The method use fraction and application method adjustment factors are not based on sound science. ***DPR disagrees that its factors are not based on sound science. The April 6 and September 29, 2007 memo by Barry, Spurlock, and Segawa describe several dozen studies that measured emissions from commercial applications. DPR believes that these studies provide a reliable estimate of emissions. The U.S. Environmental Protection Agency reviewed these same studies and included them in their risk assessments. The April 6 memo was peer-reviewed, and the comments led to the changes reflected in the September 29 memo. The described studies conclusively demonstrate that***	2B

	different application methods have different emission rates.	
2-109	The proposed regulations should apply year around. ***The proposed VOC regulations apply to the May 1 to October 31 period because they are implementing the pesticide element of the 1994 one-hour Ozone SIP. That SIP is based on seasonal inventories. Under that SIP, as approved by EPA, VOC reductions are, and always have been, measured over the six-month ozone season. Likewise the VOC reduction goals of the pesticide element of that SIP apply, and always have been applied, to that time period. The VOC reduction measures of the one-hour ozone SIP are seasonal so that the reductions needed during the peak ozone season are required.***	2B
2-210	DPR should not permanently codify the baseline inventory. ***Section 6452.2 does not codify the baseline inventory or any measure of emissions. It establishes regulatory limits.***	2B
2-211	In its original 1991 inventory, DPR assumed that for every pound of fumigant used, one pound was released as a VOC emission. Consequently, DPR's 1991 estimate of VOC emissions from the use of pesticides in agriculture is exaggerated, and the 1994 SIP and corresponding reduction goals mandated by the Judge's order are based on obsolete data. The department has recognized that the assumption of 100 percent applied does not equal 100 percent emitted. The mass emissions approach used as the basis of this regulation provides no substantiation for the linkage assumed between fumigant emissions and zone pollution. Nevertheless, methyl bromide is still listed as a VOC. ***This comment does not pertain to the regulation changes.***	4B
2-212	The proposed modifications will be detrimental to the introduction of new fumigant active ingredients into the California marketplace. The proposed modifications to entirely delete any recognition of or accommodation for new fumigants is being justified by DPR, in part, because new fumigant active ingredients would be required to be designated as California Restricted-Use materials and, accordingly, must go through their own rulemaking process as part of their California pesticide registration process. This justification is inappropriate. DPR presumes that all future fumigants will be Restricted-Use materials in California. This presumption is incorrect. It ignores that many companies are developing "soft" and other alternate fumigants that would not trigger concerns, restricted-use classification, or mitigation-through-rulemaking by DPR. However, these fumigants would be folded into the proposed regulations due to the general definition of VOC fumigants used to cover these regulations. DPR's justification for deleting any language now for new fumigant active ingredients is that new fumigants will eventually be required to establish their own product-specific regulations through rulemaking. As a result, the introduction of new fumigants into the marketplace will be delayed automatically due to complex rulemaking procedures in California, even if the fumigants do not trigger the need for extraordinary mitigation measures as have some of the traditional fumigants (e.g., methyl bromide) that are the focus of	6B

	the DPR's regulations. DPR should retain language that presumes that entry into the marketplace during the initial season for a new fumigant active ingredient will be small and, therefore, will not impact the VOC emission goals that are the sole purpose of the proposed regulations. If other rulemaking is required for new fumigants, to mitigate concerns other than VOC reductions, these rulemaking procedures can and should proceed independently of the current proposed VOC rules. They should not be coupled, without cause. A finding would be needed to establish that mitigation of the new pesticide's VOC emissions is actually required. We request that the DPR the language previously proposed for Section 6452.4 and, as proposed by Arysta in our July 13, 2007 comments to the Department, incorporate an allowance for allocations of first year fumigants into Section 6452.4. ***DPR will follow its normal process to register new fumigants. Once registered, the new fumigant may or may not be designated a restricted material. DPR must designate any new field fumigant that is a VOC as a restricted material, if it is intended for use within NAAs during May – October. DPR and county agricultural commissioners can only administer the emission allowances and ensure compliance with the fumigant limits through permit conditions for restricted materials. DPR would separately address the need to designate a new fumigant as a restricted material to mitigate toxic exposure.***	
2-213	The 15-day comment period provided was not adequate for a comprehensive review of and response supporting documents. ***Pursuant to the requirements of Government Code section 11346.8(c) and section 44 of Title 1 of the California Code of Regulations (CCR), DPR provided notice of changes made to the proposed text. These changes are in response to comments received during the 45-day public comment period. The modifications are sufficiently related to the original text of the proposed action that was notice on May 18, 2007.*** ***Additional documents relied upon after the notice of proposed action is published in the California Regulatory Notice Register must be made available to the public for at least 15 days before the proposed action is adopted. DPR added several documents. By far, the document that accounts for most of the 188 pages added to those relied upon is a revision to a document that was made available during the 45-day comment period. DPR added the external scientific peer reviews conducted by the University of California pursuant to Health and Safety Code section 57004 of the original version of this revised technical document. The peer reviews are required prior to the final adoption of the regulations.***	7B, 8B, 9B, 10B, 12B, 19B, 21B, 23B

15-DAY COMMENTS

2-214	Section 6452.4(a)(1): The description of calculating non fumigant pesticide emissions as the sum of pounds of each pesticide product used multiplied by the VOC content (emission potential) describes a simplistic approach consistent with current methodologies. Limiting essential fumigant tools should not be based on unrefined nonfumigant emission assessments. "Emission potential" should be more appropriately refined to reflect estimated emissions and any reference in this regulation should anticipate the flexibility needed for that change. Moreover, by specifying the derivation of unrefined nonfumigant "emission potential" as a function of "VOC Content" for specific products sanctions calculations limiting critical fumigation tools and is unnecessarily. See suggested change for 6452.2. ***DPR believes that any changes to the method to estimate nonfumigant emissions should be subject to public comment, peer review, and the rulemaking process.***	7B
2-215	The argument against incorporating reactivity is incorrect for two reasons. First, consider the sentence in the 1994 SIP that DPR cites as its authority to introduce the aforementioned application method adjustment factors and method use fraction. The 1990 baseline year and subsequent year estimates may be further adjusted by additional VOC Emission Factors if additional information becomes available regarding the reactivity of compounds, the impact of temperature, moisture, deposition substrate, method of application, and other factors. Note that this sentence lists reactivity as a possible source of adjustments to the VOC inventory. It is contradictory for DPR to simultaneously argue from the SIP that it can introduce application method adjustments factors and method use fractions, but that it cannot introduce reactivity. Second, as to the Title 40 CFR list that DPR's argument refers to, this list only says what chemicals should be excluded using the most naïve scheme for computing VOC inventories. In the most naïve scheme, one assumes that all VOCs have equal ozone-forming capability. This is known as a "massbased" inventory, because one just sums the total weight of all types of VOCs, without regard for their differing ozone-forming potential. ***This comment does not pertain to the regulation changes.***	8B
2-216	DPR has proposed to create an annual emissions inventory incorporated within their pesticide use report (PUR) system. The PUR will become the basis on which DPR's proposed annual emission inventory report is founded. The annual inventory report will include an analysis of the pesticide VOC emissions from fumigant and nonfumigant pesticides, along with emission potentials for each product, fumigant emission limits for each NAA and fumigant emission allowance thresholds for each upcoming year. In order to avoid any lag-time between the emissions inventory year and the growing season year there is better alternative method that DPR should consider. There are well respected and established private companies that have expertise and possess the technological infrastructural database capabilities to perform "real-time" tracking of fumigant and nonfumigant use in each growing season within California. Propose that agricultural commodity organizations and their members be permitted the flexibility to utilize any of these third-party vendors that could perform	9B, 15B, 19B

	and validate this type of data. ***The two-year lag time cannot be avoided. There is insufficient time between the end of one allowance season (October 31) and the beginning of the next (May 1) to report use, calculate emissions, determine fumigant limits, and issue allowances. Some third-party vendors could report on a more timely basis. However, third-party vendors only report pesticide use for a fraction of growers and applicators. DPR would need all pesticide use reports in order to calculate the inventory and emission limits. Moreover, it's likely the two-year lag time cannot be avoided even if all use is reported on a near real-time basis.***	
2-217	WPHA continues to emphasize the necessity for DPR to re-evaluate the 1991 baseline which egregiously misrepresents the current fumigant and nonfumigant emissions inventory by significantly underestimating reductions of those emissions, especially in the San Joaquin Valley (SJV). DPR's new VOC daily average pesticide emission limits for each NAA, especially SJV assigned a 16 tons/day average within the May-October timeframe is an improvement over the 3.8 tons/per day average that was being previously proposed for promulgation. As DPR will recall from WPHA's July 13th VOC regulation comments, the 1991 baseline inventory did not include 18-20 million pounds of 1,3-D when permits were temporarily halted during that time period. During 1991, total fumigant use was significantly and abnormally lower as growers searched for strategies to replace the lost use of 1,3-D. If the 1991 inventory had been adjusted to reflect normal fumigant usage, WPHA suggests that the reduction in fumigant emissions achieved by modern application methods would easily meet the 20 percent reduction goal. In view of this critical information, WPHA would still urge the California Air Resources Board and DPR to re-evaluate the 1994 SIP. ***This comment does not pertain to the modified text of the regulations.***	9B
2-218	We appreciate the flexibility afforded by the Department choosing to delete the table of approved methods along with their respective emission factors. However, it is still obvious, that we need to further resolve what some of the emission factors are, how to change them, and how they effect policy decisions. Specifically, we believe that the scientists involved should allow the "early morning start" and nighttime applications for Metam. ***While the metam registrants have conducted a study on an "early morning start" fumigation, they have not provided this study to DPR.***	14B
2-219	The Notice of Modifications to Text of the Proposed Changes in the Regulations states that 5,800 to 7,500 acres of land historically fumigated in Ventura will go without fumigation under the regulations. Under option 1 of section 6452.2, the impact of this loss will occur over a period of 4 years. Under option 2, the impact will be immediate. Either way, the economic impacts to Ventura County growers, workers and the community at large will be enormous. Loss of agricultural production will increase the pressure for development with significant adverse environmental consequences. In addition,	17B

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	option 2 does not meet the test of Necessity under Government Code section 11449(a), in that by DPR's estimation, the use of low emission methods and the provisions of Appendix H of the 2007 SIP approved by the California Air Resources Board, will result in the reduction of emissions required by the 1994 SIP and Judge Karlton's order. In addition, the Workgroup believes that, as early as 2009 acres in the San Joaquin Valley and Southeast Desert NAAs will suffer a similar fate. Growers must make sufficient income from the land to meet expenses. Therefore it is not always feasible for a grower to simply switch to another crop that does not require fumigation. For these reasons, the Workgroup believes that DPR's economic analysis falls far short of the true economic and environmental impact of the proposed regulations. ***See response to comments #317 and #322 - Attachment A. DPR has attempted to implement what it viewed as the only possible alternative to mitigate economic and environmental impacts.***	
2-220	The League would like to request that DPR communicate how they propose to reconcile the use of a 1991 pesticide use report (PUR) identified as the baseline and it's absence of 1,3-Dichloropropene (1,3-D) use within the current PUR reporting. This fumigant was not registered for use in California in 1991. We urge the Department to use an estimated usage and correctly adjust the baseline to include 1,3-D. The state's tree and vine producers are concerned that early allocations to area's of non-attainment will erroneously reflect higher than acceptable emissions as a result of an underestimated baseline. ***This comment does not pertain to the modified text of the regulations.***	19B
2-221	We believe the 1991-baseline inventory for fumigant emissions is incorrect and will result in a costly agricultural nightmare for our growers and valley wide agriculture and needs to be re-evaluated. There are field studies available that give a better picture of the real time emission of agricultural pesticide application that DPR needs to review and consider. That information has already been submitted by organizations. Time to evaluate these field studies should be taken by DPR to allow the adoption of science-based regulations that are fair and of value to the growers. The fifteen-day comment period is not sufficient time for DPR and the agricultural industry to build a worthwhile regulation that is workable for all. More time is needed. ***DPR disagrees that available field studies document VOC emissions from nonfumigant pesticide products.***	20B
2-222	Even for 2008 we suggest that DPR might wish to add a data field for the fumigation applications to describe whether the application was performed by a PCO or grower. ***Whether an application was performed by a PCO or grower does not impact the VOC emissions.***	22B
2-223	We are missing key information as to the basis of DPR's decisions. DPR has not explained what criteria were used to decide which methods to allow and which methods to disallow within NAAs. Thus parts of this regulation seem arbitrary.	23B

	The September 29, 2007 memo by Barry, Spurlock, and Segawa describe the application methods and supporting data, and which studies were excluded.	
2-224	We appreciate DPR expanding the definition of the pesticide VOC emission cap to include non-soil fumigant pesticide VOC emissions. As the 1994 SIP was about the contribution of all pesticides to VOC emission, the inclusion of all pesticides in setting the VOC emission cap makes sense. It is not clear how the timing of the calculation of the cap relative the availability of the use data will be completed. Will the caps be set on pesticide use data from 2 or more seasons earlier? It is unclear how changes in pest pressures that may cause major changes in the need for a high VOC emitting pesticide (other than soil fumigants) will be accounted for. ***The regulation provides flexibility for DPR to use a single year or multiple years of data for nonfumigants to calculate the fumigant limits.***	23B
2-225	Page 5 of DPR's Notice of Modification describes the changes DPR has made to section 6452.3. In our previous letters, we requested both a hearing and extension and indicated that DPR has made numerous significant changes to the regulation. The paragraph in the Notice of Modification clearly demonstrates that DPR is entirely changing who the regulation limits. The original proposed regulation only limited "registrants", while the modified proposed regulation totally eliminates any restrictions on registrants and instead implies entirely new restrictions on growers. This is a fundamental change. Moreover, this change not only reflects a change in who the regulation regulates, but also in how the regulation works. The original proposed regulation restricted registrants and then allowed market systems to influence how fumigants were distributed. No allocation to growers existed. In the new modified proposed regulation, DPR is using a command and control system involving direct permits to growers and rationing of fumigant to individual users. This reflects a significant change. Finally, further evidence of the fact that DPR's changes are dramatically and significantly different, are illustrated by the fact that all of the reporting requirements in the proposed regulation are completely changed in the modified proposed regulation. ***While changes to fumigation methods, including elimination of certain "high emission" methods will play a substantial role in the reduction of fumigant VOCs in ozone NAAs, this alone does not assure that DPR's VOC reduction goals are met. Therefore, the originally proposed regulations established a system that would have resulted in allocations to permittees managed by registrants. The recent modification made to section 6452.3 establishes an allocation to permittees managed by the DPR. These new provisions require permittees to have field fumigant VOC emission allowances (an allocation) in order to apply a field fumigant in an ozone NAA for which a fumigant emission limit has been established. DPR has determined that establishing permittee field fumigant allowances directly would***	13B

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	be a more effective process than establishing allocations to registrants who would then allocate to the permittees. The fact that permittees will be restricted in the amount of fumigant emissions, and thus will have to reduce fumigant use in certain NAA areas, is an impact that remains constant for either version of the regulations.	
2-226	DPR's Initial Statement of Reasons acknowledges that the impact of the regulation in Ventura may create a "risk that some of these acres would be converted to nonagricultural uses that have greater adverse environmental impacts." The modified proposed regulation now states, "The most likely result will be that land will be taken out of agricultural production creating significant risk of economic dislocation and pressure to develop the land for non-agricultural uses." DPR clearly anticipated a significant adverse impact in their initial proposed regulation and now appears certain of such an adverse impact, and yet DPR has not offered any new environmental analysis beyond the two pages in the Initial Statement of Reason. We believe that sufficient evidence exists to require DPR to conduct and Environmental Impact Report. DPR also attended the ARB hearing where appendix H was considered. At that hearing, ARB expressed concern about the possible conversion of agricultural land to development and significant testimony was offered. We believe that this should have been sufficient cause for DPR to conduct and Environmental Impact Report. ***See response to comment #2-249.***	13B
2-227	DPR has also incorporated the ARB staff report, Appendix H into the record. Appendix H clearly states that methyl bromide is not reactive. In our previous comments in June, we advised DPR that EPA has submitted a letter to the ARB in 2003 also indicating that methyl bromide is not reactive. Research funded by ARB and presented at the April VOC workshop sponsored by DPR also indicated that methyl bromide is not reactive. We believe that sufficient evidence has been submitted to DPR for DPR to have either removed methyl bromide from the regulation, sought an amendment to the 1994 SIP, and/or conducted an Environmental Impact Report that considered the fact that the emissions reductions that will be achieved by the regulation will have limited environmental benefit, yet cause significant economic harm. ***This comment does not pertain to the regulation changes.***	13B
2-228	DPR's Initial Statement of Reasons indicates, "DPR has not identified any feasible alternatives to the proposed regulatory action that would lessen any adverse impacts, including any impacts on small businesses,…" However, in the modified proposed regulation, DPR identifies that amending the 1994 SIP to allow for a phase-down approach will allow time to implement new technologies to mitigate the impact of the regulation. The modified proposed regulation indicates, "Option 1 allows regulated entities more time and flexibility to plan and develop strategies to meet the emission limits without necessarily taking land out of agricultural production…"We agree with approach. Moreover, the original appendix H was released May 7, 2007. The Initial Statement of Reasons was released May 18, 2007. We believe that this demonstrates that the alternatives analysis is insufficient. For example, more comprehensive amendments to the 1994 SIP could have been considered, including the fact that the Ventura NAA has achieved attainment with the 1994 SIP 1-Hour Ozone	13B

	standard every year since 2002. DPR could have also amended the 1994 SIP so that California's Ozone Season is harmonized with the federal Ozone Season. ***Only Air Resources Board (ARB) has authority to seek an amendment to the SIP. ARB could not support any other SIP changes. See response to comment #2-58. The California and federal ozone seasons are consistent.***	
2-229	DPR should consider relevant research data in determining the emission factors and inventories. For example, DPR has disregarded information from flux chamber studies conducted by leading USDA-ARS and University of California fumigant researchers. In addition, the proposed language in section 6452(c) regarding the data that should be considered in approving field fumigation methods lacks clarity, but could be interpreted to exclude peer reviewed research publications. Such a restricted view ignores the peer review process. Similarly the proposed language could be interpreted to discount the value of laboratory and small plot studies. Such studies can provide valuable information and should not be categorically excluded. Where there is a reasonable expectation that methods supported by laboratory and small plot studies will translate to valid field scale methods, DPR should allow the methods. ***DPR is relying on several dozen field studies to determine the emissions associated with the different application methods, and using surrogate field data where necessary. In some cases these field studies do not agree with laboratory studies. For example, multiple field studies show that depth of injection has no effect for methyl bromide applications, at least within the depth range studied (10-24 inches). Because of the discrepancies between laboratory and field studies, DPR intends to continue to rely on field studies to estimate emissions. No flux chamber estimates of emissions are used at this time because there are significant technical issues associated with flux chamber estimates including: (1) potentially significant effects on the local environmental conditions where the chambers are placed relative to the field as a whole. This effect may be largest for static chambers but may also affect dynamic chambers, (2) the sensitivity of dynamic chamber results to pressure gradients created by the air flow, and (3) the very limited coverage of the field by the sample chambers which can introduce a high degree of heterogeneity in the flux results.***	21B
2-230	Given the significant consequences of the proposed regulations, DPR should consider all relevant data including the studies discussed above and the results of appropriate modeling to better estimate emissions from methods that have limited field study data. Available studies and other tools include field flux and offsite air monitoring studies, flux chamber studies, CHAIN-2D modeling and other appropriate methods. ***DPR believes it is premature to use a first-principle model such as CHAIN-2D to estimate emissions. DPR may eventually use this or other models to supplement its emission estimates, but the current validation is insufficient and several input variables are difficult if not impossible to estimate.***	9B, 21B
2-231	Because DPR is amending definitions regarding VOC and ozone it may be appropriate to define NOX and smog and	18B

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	clarify that smog results from the reaction of NOX with a reactive VOC and also reference the US EPA standard on reactivity. Thereby, there would be a nexus between the problem - smog - and these VOC regulations. ***These other terms are not used in the regulation, so no definitions are necessary.***	
2-232	These amendments continue to evade the important issue of reactivity which is equally important to emission level or any other factor. The Department knows this is critical but has omitted any consideration thereof, even though it is legion in implementing VOC/NOX standards that reactivity be evaluated. Specifically, the EPA assistant administrator for air stated to the ARB chairman that sound scientific evidence clearly establishes that methyl bromide should be classified as a VOC of negligible reactivity. As such, methyl bromide does not participate in the reactions that lead to the formation of atmospheric ozone. Despite having been provided copies of these documents, and despite the statement in the aforementioned letter that "we do not believe it would be appropriate to give SIP credit for measures to control methyl bromide," methyl bromide was included in the baseline emissions inventory and in the control various measures included in the proposed regulation. These regulation amendments do not address the lack of reactivity for methyl bromide. ***This comment does not pertain to the regulation changes.***	18B
2-233	There is sufficient evidence provided by the Agency and scientists that metam-sodium is not a VOC. The Agency claims it does not have the authority to eliminate metam-sodium from the list of VOCs, but we disagree. Based on statements made in DPR's September 29, 2007 memo to John S. Sanders from Terrell Barry, Frank C. Spurlock, and Randy Segawa, it is clear DPR feels that its hands are tied and has no option with regard to the treatment of MITC as a VOC. ***This comment does not pertain to the regulation changes.***	12B
2-234	DPR should reconsider its unwillingness to treat MITC as having a negligible photochemical reactivity. ***This comment does not pertain to the regulation changes.***	12B

Reduced Emission Methods

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2-235	The criteria that a method not in the cited sections must be “no greater than any one of the methods for the same fumigant …”, is unnecessary. ***DPR disagrees. This criterion included in section 6452 provides incentive to develop new application methods with lower VOC emissions and the flexibility to allow their use while still meeting DPR's SIP obligations.***	7B
2-236	While the parenthetical description “(emission rating multiplied by the maximum application rate)” defining a “maximum emission rate” makes sense in describing the constraints related to an approval of a new fumigation method, the term “maximum emission rate” leads to confusion and is misused as defined. The emissions rating multiplied by the maximum application rate could be identified as an application’s ‘cumulative emissions’. The phrase ‘maximum emission rate’ generally refers to the peak instantaneous flux in an emissions curve, thus section 6452(a) and (b)(B) could be misinterpreted. We suggest substituting "maximum cumulative emissions" for the phrase, "maximum emission rate." ***DPR believes that the term “maximum cumulative emissions” is also confusing. This term can refer to the emissions from an entire field, rather than emissions on a per acre basis. Section 6452 is the only section that uses the term “maximum emission rate.” As the commentor points out, the term is clearly defined in this section.***	7B
2-237	Section 6452(c) lacks clarity. The implications of (c)(3) are unclear. It makes sense that the data provided should be adequate to reflect use conditions. That seems inherent in the term “sufficient” in (c)(1). We do not believe that an appropriate interpretation of this section would be a requirement for field data to justify approval of a new method, if the weight of evidence for other types of data are “sufficient”. ***Section 6452(c)(3) does not require field data. It requires that the submitted data indicate the emissions under the conditions of an agricultural field. DPR does not believe that current non-field methods (e.g., laboratory or modeling methods) reliably indicate emissions under field conditions, but this section does not preclude their use should their validity be demonstrated in the future.***	7B, 17B
2-238	Subsections 6452(c)(2) and (3) appear to intentionally exclude peer-reviewed research publications, particularly those which are not field-scale studies. Due to limited space available in publications quality control data are often not presented, although they typically are collected and evaluated prior to publication as part of the scientific method. In some cases there is brief mention of preliminary or confirmatory studies, however it is the judgment of the authors, reviewers, and editors as to the quality and validity of the reported results. These types of questions are asked during the review process, and once the reviewers and editors are satisfied, there is no requirement that the author include the details of quality control in the publication. ***Sections 6452(c)(2) and (3) do not exclude peer-reviewed research. The quality control data can be submitted as a***	7B

	supplement to a peer-reviewed article. In some cases, the authors of fumigant peer-reviewed articles acknowledge that the emissions only measure relative differences of the study conditions, and may not represent emissions under field conditions. It would be inappropriate for DPR to use these types of articles for determining emission rates under field conditions.	
2-239	In section 6452(d), the implication of what happens at the end of the three-year interim approval is unclear except that the interim approval expires. Methods approved on an interim basis should be proposed and adopted into regulation prior to the expiration of the approval. New method development will be the result of innovation and investment. The process leading to long-term approval should be clear. ***The implications of Section 6452(d) are clear because the commentor correctly states that the interim approval expires. During the 3-year interim period, DPR may or may not seek to permanently adopt a new application method through rulemaking.***	7B, 21B, 23B
2-240	Section 6452(c)(3): Appreciates the amended process that allows the Director the discretionary authority to approve field fumigation methods either not described or excluded from use as enumerated within the modified text. However, the process and criteria are still unclear. Parts of this section seem to imply that laboratory and small-plot studies are discounted in value. It is also unclear as to what happens after the three-year period. What is the process for long-term approval? DPR should take into consideration that a "new" methodology may have a higher emission rate than a "comparable method" but it may also be the only one that works in the field. Provided the overall level of emission per NAA is not exceeded there should be provision for this approach. ***Section 6452(c)(3) does not require field data. It requires that the submitted data indicate the emissions under the conditions of an agricultural field. DPR does not believe that current non-field methods (e.g., laboratory or modeling methods) reliably indicate emissions under field conditions, but this section does not preclude their use should their validity be demonstrated in the future.*** ***DPR would use the rulemaking process to allow a new application method on a permanent basis.*** ***DPR uses the emissions on a per acre basis as the criteria for approving a new application method because it is problematic to anticipate the treated acreage and emissions within an NAA for a new application method.***	14B, 22B
2-241	DPR should set up limits on the total VOC emissions/A and then allow the CAC's offices to determine if a particular method of application at the rate proposed will reduce the VOC emission below the maximum rate allowed. This flexibility in mixing different application methods with rates will be critical in situations where DPR determines, based on the proposed applications, that the VOC emission cap for a NAA is likely to be exceeded and thus imposes an across the	23B

	board cut for all applications. ***Methyl bromide has greater volatility and higher emissions rates compared to the other fumigants. Establishing a maximum emission rate will likely prohibit most if not all methyl bromide applications. In addition, DPR cannot ensure that the fumigant limits and SIP commitments will be met without limits on fumigated acreage. A regulatory approach that relies on a maximum emission rate and acreage limits would be as complicated if not more complicated than the current system.***	
2-242	Proposed Section 6452(b)(1)(B) currently reads: "The maximum emission rate (emission rating multiplied by the maximum application rate) is no greater than any one of the methods for the same fumigant and allowed for use in the San Joaquin Valley . . ." The word "and" should be removed as it makes the regulation less clear. A similar correction is needed in 6452(b)(1)(A). ***DPR has made the suggested editorial changes.***	21B

Economic Impacts

2-243	Estimated private sector costs must be associated with impacts to job/occupations or California competitiveness. There are 10,000 acres of trees & vines and 30,000 acres of carrots treated every year in NAAs between May-October using practical low emission practices. DPR must include these factors when determining what low emission methods will be approved for use. Supplementary water may be required to meet the additional water seal requirements of the approved low emission methods. These costs should be factored into the approval of any low emission method that requires additional water seals.] ***The Agency-wide Economic Analysis Unit cost analysis, (dated April 18, 2007, revised September 17, 2007) estimates production losses to strawberry growers in Ventura County and the cost to convert to low-VOC methods of fumigant applications for those other areas of the state affected by the fumigant regulation. Carrot and potato growers (outside of Ventura County) would not be prevented from using fumigants (but would incur increased costs of fumigant application) as detailed in the cost analysis, dated April 18, 2007.*** ***Staff assessed the impact of the increase cost of fumigant application on four crops that have a relatively large number of fumigated acres in the San Joaquin Valley, e.g., almonds, table grapes, potatoes, and fresh carrots, and a crop with small fumigant acreage, cabbage. The analysis centers on the idea that the grower can increase the price of the***	4B

commodity by the cost of the fumigant application ($240/acre –sprinkler system, or $400/acre –tarping method) and pass this price increase on to the wholesaler.

Table 1 presents the five crops, the cost of fumigant application, crop yield, the price received for the crop in 2006, the crop's price increase if the grower incorporates the increase cost of fumigation into the price of the crop, and the percentage increase in the price of the crop due to the regulation.

Impact of Regulation on Price of Crop
The increase in price ranges from one-half a cent per pound for cabbage to about 15 cents per pound for almonds. The percentage increase in price ranges from 3.8 percent for cabbage and fresh carrots to 8.2 percent for almonds.

As noted above, incorporating the cost of low VOC fumigant methods into the price of the crops will increase the price of cabbage and fresh carrots 3.8 percent and almonds 8.2 percent. It is reasonable to assume that the grower would not absorb the cost increase but would pass these relatively modest price increases forward and continue to grow these crops in the San Joaquin Valley. The farmer's ability to pass the cost along to wholesalers is enhanced by the fact that all farmers would be increasing their prices which would maintain a level playing field and would not erode farmer competitiveness within the State.

The impacts on jobs most likely will be negligible in the San Joaquin Valley as the direct impact of the cost of low VOC fumigant methods is not borne by the grower, but passed on to the wholesaler. Lastly, regarding California competitiveness vis-à-vis out-of-state growers, the estimated price changes provide some insight into the ability of California growers to remain competitive with out-of-state producers.

Table 1: Impact of Fumigant Cost on Price of Selected San Joaquin Valley Crops

Crop	Cost of Fumigant	Yield (lb/acre)	Price per Unit[5]	Increase in Price	Percent Increase in
Almonds	400	2600[2]	1.87	0.154	8.2%
Table Grapes	400	15,200[3]	0.451	0.026	5.8%
Fresh Carrots	240	30,500[4]	0.211	0.008	3.8%

Fresh Carrots	***240***	***30,500[4]***	***0.211***	***0.008***	***3.8%***
Potatoes	***240***	***35,900[4]***	***0.124***	***0.007***	***5.4%***
Cabbage	***240***	***44,000[4]***	***0.145***	***0.005***	***3.8%***

1. ***Department of Pesticide Regulation, Cal-EPA, 2007.***
2. ***Sample Costs to Establish an Almond Orchard and Produce Almonds, UC Cooperative Extension, 2003.***
3. ***Sample Costs to Establish and Produce Table Grapes, UC Cooperative Extension, 2004***
4. ***National Agricultural Statistics Service, U.S. Department of Agriculture, 2007. http://www.nass.usda.gov/Statistics_by_State/California/index.asp#.html***
5. ***National Agricultural Statistics Service, U.S. Department of Agriculture, 2007. http://www.nass.usda.gov/Statistics_by_State/California/index.asp#.html***

Other key changes to the regulation will lessen the cost of fumigant application in the San Joaquin Valley. For orchards and vineyards, growers can use normal methods to apply 1,3-D (deep injection method). This will not increase the cost of fumigant application. However, shallow injection application methods will require water methods. (Source: DPR)

2-244	DPR's economic analysis erroneously assumes that growers can utilize fumigants and/or alternative chemistries interchangeably, shift from one crop to another and that application techniques can be changed as needed. These errant assumptions suggest that it will be easy for producers to adjust production systems, IPM programs and cropping patterns to comply with the regulations when in fact the changes may be impossible to make or result in significant reductions in yield and inability to deal with key agricultural pests. Reduced efficacy or inability to fumigate will impact diverse cropping rotations such that other nonfumigated crops will also suffer reduced yields and or even reduced plantings. ***In order to perform the cost analysis, staff did assume that growers can change to low VOC fumigant application techniques (methods) as needed. Staff was not suggesting that it will be easy for producers to adjust production systems and assigned a cost of $240/acre –sprinkler system, or $400/acre –tarping method as the cost of using low VOC fumigant methods for crops grown in the San Joaquin Valley. Staff also did not assume growers will shift from one crop to another, but that growers would continue to grow the same crop(s) using low VOC fumigant methods. The impact on growers switching to low VOC fumigant methods was assessed by analyzing the increase in price of crops due to the increased cost of applying low VOC fumigants.*** ***Staff assessed the impact of the increase cost of fumigant application on four crops that have a relatively large number***	15B

	of fumigated acres in the San Joaquin Valley, e.g., almonds, table grapes, potatoes, and fresh carrots, and a crop with small fumigant acreage, cabbage. The analysis centers on the idea that the grower can increase the price of the commodity by the cost of the fumigant application and pass this price increase on to the wholesaler. ***Table 1 (see response to comment #2-243) presents the five crops, the cost of fumigant application, crop yield, the price received for the crop in 2006, the crop's price increase if the grower incorporates the increase cost of fumigation into the price of the crop, and the <u>percentage</u> increase in the price of the crop due to the regulation.*** ***Impact of Regulation on Price of Crop*** ***The increase in price ranges from one-half a cent per pound for cabbage to about 15 cents per pound for almonds. The <u>percentage</u> increase in price ranges from 3.8 percent for cabbage and fresh carrots to 8.2 percent for almonds.*** ***As noted above, incorporating the cost of low VOC fumigant methods into the price of the crops will increase the price of cabbage and fresh carrots 3.8 percent and almonds 8.2 percent. It is reasonable to assume that the grower would not absorb the cost increase but would pass these relatively modest price increases forward and continue to grow these crops in the San Joaquin Valley. The farmer's ability to pass the cost along to wholesalers is enhanced by the fact that all farmers would be increasing their prices which would maintain a level playing field and would not erode farmer competitiveness within the State.*** ***Other key changes to the regulation will lessen the cost of fumigant application in the San Joaquin Valley. For orchards and vineyards, growers can use normal methods to apply 1,3-D (deep injection method). This will not increase the cost of fumigant application. However, shallow injection application methods will require water methods. (Source: DPR)***	
2-245	Since the initial proposed regulation released on May 18, 2007, DPR has issued 4 different estimates of impact on acreage and thus economic impact. This constant change in estimates by DPR demonstrates their inability to accurately estimate the impact of the regulation. The most current economic analysis of September 20, 2007 is deficient. The following are offered to help describe the economic impact of the modified proposed regulation. The revised Agency-wide (Cal/EPA) Economic Analysis Unit memo of September 20,2007, indicates that 5,758 acres – 7,465 acres would go out of production and estimates that the associated profit that would thus never be generated would be $48 - $62 million per year. For a five year period from 2008 – 20012, unadjusted for inflation, this would be $240 - $310 million. The economic analysis fails to consider other economic impacts beside profit and fails to account for the cumulative impact of the regulation over time.	13B

	The Ventura County Agricultural Commissioner 2005 Crop Report indicates that Strawberries were the highest value crop for 2005, generating a farmgate value of $328,567,000 for 11,333 acres. DPR could have used this reported farmgate value to estimate the loss of 5,758 – 7,465 acres. For example, this would result in an economic loss of $166 - $216 million per year. For a five year period from 2008 – 20012, unadjusted for inflation, this would be approximately $1 billion in lost revenue. The California Strawberry Commission has also funded the University of California to document the number of direct jobs created by strawberry production. That independent research suggests that 2.5 jobs are created for every acre of strawberry production. Currently, the entire nation is experiencing a labor shortage, and California agriculture is specifically experiencing a labor shortage. This year, estimates are that every acre of strawberry production is supporting 2 jobs. Thus, the job loss associated with this regulation is estimated at 11,516 – 14,930 jobs per year. DPR should have considered job loss in their economic analysis. Ventura County land values for agricultural production are among the highest in the nation. Land prices for agricultural land are currently at about $70,000 per acre. The value of the land is partially influenced by the ability of high-value crops to pay the financing costs associated with the land value. In other words, the loss of revenue to support 5,758 – 7,465 acres would put $400 - $522 million in bank loans at risk, since the revenue used to pay the property loans would be severely diminished due to the lack of fumigation and inability of a high-value crop. DPR should have considered other impacts such as bank financing. They alluded to such issues in their editorial of June 10, 2007, but failed to analyze such impacts. Pressure to develop land for urban uses Numerous growers have testified to DPR and ARB that if the land cannot be fumigated, that certain commodities cannot utilize that ground. DPR has acknowledged, “The most likely result will be that land will be taken out of agricultural production creating significant risk of economic dislocation and pressure to develop the land for nonagricultural uses. Ventura County citizens have passed a local ordinance that allows land within City boundaries to be developed, but requires land in the unincorporated area to receive voter approval before it can be developed. The California Strawberry Commission conducted an aerial analysis using GIS and verified that approximately 3,000 acres of currently used farmland are within city boundaries in Ventura County. By eliminating fumigation to those fields, the most likely scenario is that they will be converted to urban development, resulting in increased VOC and other emissions. Any land in the unincorporated area that becomes uneconomical to farm will effectively result in a taking for the property owner – where the local ordinance eliminates the property owners ability to develop and the DPR regulation eliminates the property owners ability to farm. DPR acknowledged that urban development is a likely result of their regulatory action, yet DPR failed to analyze associated economic impacts of urban development.	

	The Agency-wide Economic Analysis Unit's cost analysis, (dated April 18, 2007, revised September 17, 2007) estimates production losses to strawberry growers in Ventura County and the cost to convert to low-VOC methods of fumigant applications for those other areas of the state affected by the fumigant regulation. The analysis attempts to assess the direct loss to growers impacted by the regulation. The cost analysis presented a worst case scenario for Ventura County. It assumed that the impact of all emission reductions fell on growers of strawberries and the strawberry growers did not plant the next most profitable crop not requiring fumigation. To the extent that other crops requiring fumigation were included in the analysis, or that strawberry producers planted an alternative crop (not needing fumigation), the cost impact of the regulation would be lower. The results of the analysis --$48 to $62 million/year in direct production losses to strawberry growers --is not an attempt to limit the magnitude of the impact; it is a worst case scenario. These grower losses to can be extrapolated to future years. However, the likelihood of the land remaining unproductive (unprofitable) after a couple of years is questionable. ***The Agency-wide Economic Analysis Unit addressed the profitability of the grower as profit is a more representative estimate of the direct impact on growers. With farmgate receipts it is hard to know how much was retained by the grower (as profit) and how much was passed through as cost of doing business.*** ***Secondary impacts of the regulation were not considered Secondary impacts such as loss of jobs to farm laborers, the increase in bank loan risk, or loss of income to processors and suppliers, while important to the community, do not expressly impact the grower's profitability and were not included in the impact analysis. Direct impacts, such as land value losses to growers, were not considered, as estimating the impact on real estate is uncertain and highly subject to local influences.*** ***Also, with respect to increased risk of bank loan default, it is hard to know what percentage of the acreage taken out of production (5,758 – 7,465 acres) is financed. The percentage split between acreage owned free and clear (no loan) and acreage financed is not known. Annual operating loans are most likely taken out against property to finance annual strawberry production.***	
2-246	DPR has significantly underestimated the economic impact of the proposed regulations. The revised economic analysis continues to assume that growers can easily switch to other fumigation methods or to crops that do not require fumigation. However, this ignores several key facts. For example, application methods are based, among other criteria, on crops, soil type and target pests. Many growers have already moved to lower emission methods as the industry works to develop more efficient application methods. For example, in 1991 there were no commercial drip irrigation applications of chloropicrin. Now, approximately 50 percent of strawberry growers in Ventura County have transitioned to drip	21B

	fumigation, which is the lowest emitting method currently available. However, drip fumigation may not be possible for certain crops such as nursery crops, cut flowers and new orchards. In addition, due to site-specific pest pressures there may be a need for broadcast treatment for proper efficacy. Other factors that can prevent a grower from using drip include hilly terrain (which precludes uniform fumigant distribution and efficacy via drip application), lack of water for irrigation, lack of drip irrigation equipment (due to utilization of other watering methods), and choice of fumigant (e.g. methyl bromide is currently not available as a drip-applied formulation). Therefore, not all growers are able to simply switch application methods. DPR also assumes that growers can easily switch to organic crops or to crops that do not require fumigation. DPR has failed to consider the markets for the crops and the ability of growers to meet financial commitments with lower per acre returns. Loss of fumigant income will result in a reduction in farm employment. It also will lead to a reduction in fumigant application employment as less land is treated. DPR must properly assess all potential relevant adverse economic impacts, to avoid unnecessary or unreasonable regulation, and must identify alternatives that would mitigate these impacts. ***The Agency-wide Economic Analysis Unit's cost analysis, (dated April 18, 2007, revised September 17, 2007) estimates production losses to strawberry growers in Ventura County and the cost to convert to low-VOC methods of fumigant applications for those other areas of the state affected by the fumigant regulation. The analysis attempts to assess the direct loss to growers impacted by the regulation. The cost analysis presented a worst case scenario for Ventura County. It assumed that the impact of all emission reductions fell on growers of strawberries and the strawberry growers did not plant the next most profitable crop not requiring fumigation. To the extent that other crops requiring fumigation were included in the analysis, or that strawberry producers planted an alternative crop (not needing fumigation), the cost impact of the regulation would be lower. The worst case analysis --$48 to $62 million/year in direct production losses to strawberry growers --is not an attempt to underestimate the economic impact of the proposed regulations; the analysis is presented as a worst case scenario for Ventura County. For the other regions of California the analysis takes into consideration the cost of switching to a low VOC fumigant method and assumes that growers will continue to plant the same crop mix. The cost to switch methods ranges from $240/acre –sprinkler system to $400/acre –tarping method. The magnitudes of these cost estimates do not indicate that DPR staff felt it would be easy (or inexpensive) to switch application methods. The cost of application reflects, for the most part, fumigant and crop.*** ***For other areas of the State, staff did not assume growers will switch to organic crops or to crops that do not require fumigation, but that growers would continue to grow the same crop(s) but use low VOC fumigant methods. The impact on growers switching to low VOC fumigant methods was assessed by analyzing the increase in price of crops due to the increased cost of applying low VOC fumigants.***	

	Staff assessed the impact of the increase cost of fumigant application on four crops that have a relatively large number of fumigated acres in the San Joaquin Valley, e.g., almonds, table grapes, potatoes, and fresh carrots, and a crop with small fumigant acreage, cabbage. The analysis centers on the idea that the grower can increase the price of the commodity by the cost of the fumigant application and pass this price increase on to the wholesaler. ***Table 1 (see response to comment #2-243) presents the five crops, the cost of fumigant application, crop yield, the price received for the crop in 2006, the crop's price increase if the grower incorporates the increase cost of fumigation into the price of the crop, and the <u>percentage</u> increase in the price of the crop due to the regulation.*** ***Impact of Regulation on Price of Crop*** ***The increase in price ranges from one-half a cent per pound for cabbage to about 15 cents per pound for almonds. The <u>percentage</u> increase in price ranges from 3.8 percent for cabbage and fresh carrots to 8.2 percent for almonds.*** ***As noted above, incorporating the cost of low VOC fumigant methods into the price of the crops will increase the price of cabbage and fresh carrots 3.8 percent and almonds 8.2 percent. It is reasonable to assume that the grower would not absorb the cost increase but would pass these relatively modest price increases forward and continue to grow these crops in the San Joaquin Valley. The farmer's ability to pass the cost along to wholesalers is enhanced by the fact that all farmers would be increasing their prices which would maintain a level playing field and would not erode farmer competitiveness within the State. As this analysis indicates the direct impact of the cost of low VOC fumigant methods is not borne by the grower, impacts on jobs will be negligible in the San Joaquin Valley.*** ***Other key changes to the regulation will lessen the cost of fumigant application in the San Joaquin Valley. For orchards and vineyards, growers can use normal methods to apply 1, 3-D (deep injection method). This will not increase the cost of fumigant application. However, shallow injection application methods will require water methods. (Source: DPR)*** ***Lastly, secondary impacts of the regulation were not considered The analysis was to estimate the cost to businesses directly impacted by the proposed regulations. Given the impact on growers that are directly affected, there will likely be some additional costs incurred as a result of the regulations.***	
2-247	To determine the loss to carrot and potato growers is a difficult task. However, the economic models being used by the state agencies, which admit an economic loss, are based on the premise that if carrots or potatoes are not grown on the acreage, then another crop will be grown. Carrot and potato growers are specialists and cannot easily move into other	12B

	crops other than the crops used for rotation purposes. Each crop has its special requirements - not easily learned. In addition to the potential economic impact to growers is the impact on processors. These processing facilities need supply to maintain the economic viability of the facility. Skilled labor is required to operate these facilities, and unless the labor has reasonable tenure, labor will move to other opportunities or become a ward of the community. In our comments to the first proposed regulations, we provided a carrot and potato economic study on the impact of the proposed regulation. The revised regulation does not change the potential economic injury to the carrot and potato industries. ***Staff assessed the impact of the increase cost of fumigant application on four crops that have a relatively large number of fumigated acres in the San Joaquin Valley, e.g., almonds, table grapes, potatoes, and fresh carrots, and a crop with small fumigant acreage, cabbage. The analysis centers on the idea that the grower can increase the price of the commodity by the cost of the fumigant application and pass this price increase on to the wholesaler.*** ***Table 1 1 (see response to comment #2-243) presents the five crops, the cost of fumigant application, crop yield, the price received for the crop in 2006, the crop's price increase if the grower incorporates the increase cost of fumigation into the price of the crop, and the <u>percentage</u> increase in the price of the crop due to the regulation.*** ***Impact of Regulation on Price of Crop*** ***The increase in price ranges from one-half a cent per pound for cabbage to about 15 cents per pound for almonds. The <u>percentage</u> increase in price ranges from 3.8 percent for cabbage and fresh carrots to 8.2 percent for almonds.*** ***As noted above, incorporating the cost of low VOC fumigant methods into the price of the crops will increase the price of cabbage and fresh carrots 3.8 percent and almonds 8.2 percent. It is reasonable to assume that the grower would not absorb the cost increase but would pass these relatively modest price increases forward and continue to grow these crops in the San Joaquin Valley. The farmer's ability to pass the cost along to wholesalers is enhanced by the fact that all farmers would be increasing their prices which would maintain a level playing field and would not erode farmer competitiveness within the State.*** ***Other key changes to the regulation will lessen the cost of fumigant application in the San Joaquin Valley. For orchards and vineyards, growers can use normal methods to apply 1,3-D (deep injection method). This will not increase the cost of fumigant application. However, shallow injection application methods will require water methods.***	

	(Source: DPR) ***Lastly, secondary impacts of the regulation were not considered The analysis was to estimate the cost to businesses directly impacted by the proposed regulations. Given the impact on growers that are directly affected, there will likely be some additional costs incurred as a result of the regulations.***	
2-248	Government Code section 11346.3(a) requires DPR to assess the potential for adverse economic impact on California business to avoid the imposition of unnecessary or unreasonable regulations or reporting, recordkeeping, or compliance requirements. The proposed regulation must be based on adequate information concerning the need for, and consequences of, proposed government action. The potential for development is only half true. The citizens of Ventura County passed a local ordinance allowing land within City boundaries to be developed but restricting land in unincorporated Ventura County from development unless approved by the voters. The Commission conducted an aerial analysis using GIS and verified that approximately 3,000 acres of currently used farm property are within the City limits. The elimination of fumigation to those fields will most likely result in the transition of that property from agricultural production to urban development thereby creating environmental impacts that are likely to increase VOC emissions. Due to the high cost of the land in the County, it is not likely other crops could be planted on the acreage outside of the City limits. In turn, without fumigation, agricultural production is not economical. These regulations, whichever option is adopted, will leave a grower without an economically viable use of his land, resulting in an unconstitutional taking of property. The Notice of Modifications states that 5,800 to 7,500 acres of land historically fumigated in Ventura will go without fumigation under the regulations. This represents 51 percent to 66 percent of the total strawberry acreage in Ventura County. Under Option 1 of Section 6452.2, the impact of this loss will occur over a period of 4 years. Under Option 2, the impact will be immediate. Under either alternative, the economic impact to growers, workers and the community at large will be enormous. According to the Ventura CAC 2005 Crop Report, strawberries were the highest value crop generating more than $328 million in farm gate revenue. Using DPR's estimated acreage loss, total revenue lost as a result of this regulation ranges from $167 million to $216 million. Research conducted by the University of California shows that 2.5 jobs are created for each acre of strawberry production. In today's climate with a national labor shortage, the actual number is closer to 2 jobs per acre. Either figure results in a significant job loss ranging from 11,600 on the low end to as many as 18,750. These are significant industry wide losses that DPR fails to recognize in its analysis and by doing so fails to comply with its statutory obligation to avoid adverse economic impacts. ***See response to comments #310, #317, and #322 - Attachment A.***	16B

	DPR has noted the possibility that the regulations may cause landowners to decide to convert their land to nonagricultural or more viable uses. This does not constitute an unconstitutional taking.	

Other

2-249	DPR must comply fully with CEQA (Public Resources Code section 21100, et seq.) and must file an environmental impact report. DPR has failed to comply with the requirements of its certified regulatory program. ***These comments are substantially the same as those made by the same commentor dated July 13, 2007, and, with one exception, the responses to earlier comments also reply to these (see comments #328, #329, and #330[Attachment A]). The exception arises because a change in the amended proposed regulations call for an additional response to the same comment made in both submissions.***	11B
2-250	DPR's certified regulatory program does not apply to the decision to adopt the proposed regulations. ***The Department disagrees with this comment. See response to comment #330 (Attachment A). In addition, 14 CCR section 15251(i) listing the four areas of the pesticide regulatory program certified as the functional equivalent of an environmental impact report (EIR) includes"[t]he regulation of the use of pesticides in agricultural and urban areas of the state through the permit system administered by the county agricultural commissioners." The amended regulations now allocate field fumigant emissions directly to the permittee rather than indirectly through the registrant of the fumigant product. The regulation of these pesticide emissions is now accomplished through the permit system administered by the county agricultural commissioners, placing it in an additional area of DPR's program certified as the functional equivalent of an EIR.***	11B
2-251	Under the CEQA, DPR is required to evaluate any potential environmental consequences associated with these proposed regulations. This holds true even though DPR is acting under a court order. DPR's failure to prepare an EIR associated with these proposed regulations is a violation of the law. DPR contends that it is operating under its Certified Regulatory Program (CRP) and, therefore, is not required to prepare an EIR, but these specific regulations are not properly reviewable under the CRP. DPR needs to take the time to prepare an EIR. ***See response to comment #2-249.***	12B
2-252	To date, DPR has never presented the Court with information that the Ventura NAA actually has achieved attainment every year since 2002 and should be exempted from the court order. DPR has never presented the Court with information that the order has a dramatic and disproportionate impact on Ventura – which achieved overall attainment with the 1994	13B

	SIP, 1-Hour Ozone Standard every year since 2002. ***See response to comments #310, #317, and #322 - Attachment A.***	
2-253	It is important to note that under California's Administrative Procedures Act, DPR must take into consideration any adverse economic impacts its actions will have on California businesses. The APA requires DPR to avoid the imposition of any unreasonable and unnecessary regulatory requirements. If feasible, DPR must consider less costly alternatives or a combination of alternatives that would be equally effective in achieving the air quality standards required under the law. Given the science showing the limited impact of metam-sodium on air quality and the significant economic impact the proposed regulation will have on growers who use metam-sodium, it should be easy for DPR to find a less costly and equally effective alternative. ***See response to comments #2-58, and #322 - Attachment A.***	12B
2-254	DPR is proposing to use 2004 pesticide use statistics as the reference point for determining the required VOC fumigant emission reductions. However, there are numerous issues regarding the accuracy of these numbers. Historically there have been errors in DPR's Pesticide Use Reports data collection and the data are not available for several years after collection. DPR must improve the data collection system to provide accurate data for determining pesticide emissions and compliance with the SIP. ***As required by the court order, DPR uses the 1991 emissions as the base year for determining the pesticide VOC emission benchmarks.***	21B
2-255	DPR states that implementation of the proposed regulations would not reasonably be expected to show a significant adverse effect to California's environment. DPR expects that in most cases the VOC reductions will come from the use of application methods that reduce emissions. In some cases the reduced emission methods will not be feasible or will not provide sufficient reductions. In these cases, the land may be converted to nonagricultural uses. DPR has not adequately considered the impacts of conversion of agricultural land to nonagricultural uses. DPR acknowledges that the amount of acreage fumigated in Ventura will be reduced by 5,758 to 7,465 acres. A significant portion of this land could be converted to non-agricultural uses, especially in those portions of the county that do not have strong agricultural land protection provisions. In its earlier analysis DPR noted that there is some risk that land will be converted to non-agricultural uses that have greater adverse environmental impacts, but stated that such risk "is speculative, since the potential uses are unknown." DPR cannot avoid acknowledging the potential for adverse environmental impacts simply because the precise nature of the use is unknown. There is sufficient information to consider the possible adverse impacts and mitigation measures to lessen these impacts. DPR must adequately consider all	21B

	relevant economic impacts. ***See response to comments #317 and #322 - Attachment A.***	
2-256	The original Notice of Proposed Regulatory Action, section 6452.3 provided that fumigant registrants were required to limit VOC emission from their products to stay within allocations established by the Director. In the October 3 modified regulations an entirely new process is presented putting a greater burden on growers who must, in effect, apply for emissions allowances through the Restricted Materials Permit process. The proposed program as detailed involves planning for fumigation far in advance of normal agronomic practices and creates unnecessary costs for growers and regulators. The changes implementing this new program create new issues that could not have been determined from the original notice and therefore are not sufficiently related. ***See response to comment #2-225.***	16B

Documents Relied Upon

	Comments are on the peer review documents. ***No response necessary.***	7B
	1991 is not an appropriate baseline year. To the extent that DPR believes that the terms of the 1994 SIP require it to impose regulations that: (1) impose an allocation scheme that unduly burdens users of soil fumigants as opposed to all other users of products that emit VOCs; (2) may not result in reductions in overall VOC emissions because they promote the loss of agricultural lands to development; (3) does not use an appropriate baseline year; and (4) are otherwise burdensome. DPR, in connection with ARB, should seek to amend the SIP to address these issues. ***Comments are not relevant to the modified text - no response necessary.***	21B