FSC-TPL-01-002 Application for a derogation to use a highly hazardous pesticide

Hexazinone

Name and contact details of certification body requesting derogation:	SCS Dave Wager dwager@scscertified.com 510 251-7049
Active ingredient for which derogation requested:	Hexazinone
Geographical scope of requested derogation:	Michigan
Is there an accredited or preliminarily accredited FSC Forest Stewardship Standard applicable to the territory concerned?	FSC US standard
Requested time period for derogation: (Derogations shall normally be issued for a five-year period. There will be a presumption against renewal of a derogation after the expiry of the five-year period).	5 years

1. Demonstrated need

Need may be demonstrated where:

- The pesticide is used for protecting native species and forests against damage caused by introduced species or for protecting human health against dangerous diseases, OR
- Use of the pesticide is obligatory under national laws or regulations, OR
- Use of the pesticide is the only economically, environmentally, socially and technically feasible way of controlling specific organisms which are causing severe damage in natural forests or plantations in the specified country (as indicated by consideration, assessments and preferably field-trials of alternative non-chemical or less toxic pest-management methods)

Explain how the proposed use complies with the specified criteria for need, including the consideration of alternatives which do not require the use of pesticides on the FSC list of 'highly hazardous pesticides':

Background

Control of annual, perennial and woody weeds is essential for the successful establishment and growth of young red pine (*Pinus resinosa)* plantings. Without weed control, red pine which is shade intolerant may die due to inability to compete for water and nutrients may be damaged by pests which favour stressed trees, and/or growth rates may fall below economic thresholds.

Young trees that are stressed by weed competition are predisposed to insect and disease problems such as the redheaded pine sawfly, white grubs and armellaria root rot. Thus, the judicious use of herbicides to control competing vegetation can greatly reduce the later use of insecticides.

Michigan's Red Pine Stands

Michigan has over 250,000 acres of planted red pine which serve as an important source of dimensional lumber, utility poles and pulp. Assuming an average 80 year rotation, and assuming that this acreage is maintained in red pine production, we would regenerate about 3,000 acres annually. Further, planted stands that require control of competing vegetation typically need such treatment once or, less frequently, twice during the rotation. Many planted stands need only a portion of the planting sprayed using hand or ground equipment.

Vegetative Competition and Pest Risk

Red pine vigor can be significantly impacted by pests such as white grubs (Phyllophaga sp.) and the redheaded pine sawfly (*Neodiprion lecontei*). Conversely stressed or poor vigor red pine can increase pest populations.

White grubs are the larvae of the May beetles. White grubs feed on the roots of tree seedlings causing growth loss and mortality. Injury usually occurs during the first two growing seasons after planting. The most severe injury occurs when planting open fields, abandoned farmland or other areas adjacent to expansive grasslands, especially if there is an aspen component. Management strategies include reducing competitive vegetation within a 2 foot radius of the seedling to assure maximum seedling growth and vigor. The faster the seedling spreads its root system, the more quickly the seedling leaves the grub susceptible stage, and the more rapidly it repairs injuries.

The redheaded pine (RHPS) sawfly is a serious pest of planted red pine. The sawfly damages young pines less than 15 feet (5 meters) tall. Effects can range from widespread

mortality in younger plantings to stunted and misshapen partially defoliated trees.

Heaviest infestations are common on red pine growing under stress, particularly those at the edges of hardwood forests, on poor soils, and where there is heavy competitive vegetation. This sawfly is also periodically epidemic on planted pine on better sites, especially during contiguous years of drought.

Susceptibility and vulnerability of red and jack pine to redheaded pine sawfly damage can be reduced by avoiding planting where competition for moisture and nutrients are great, or where soil conditions are marginal for growth. Nonvigorous hosts are most susceptible to this insect. Management promoting tree vigor is beneficial. Thus, sawfly management calls for planting on better pine sites, which often requires some control of competing vegetation via the use of herbicides. Not controlling or minimally managing competing vegetation reduces stand vigor; thus, increasing susceptibility to sawfly damage. Assessment of site susceptibility and tree vulnerability to RHPS through pre-planting risk-rating surveys is critical to reduce the likelihood of outbreaks and associated tree mortality. In addition, periodic monitoring to evaluate herbaceous and woody competition ensures cost-effective and judicious use of hexazinone to reduce tree stress and vulnerability.

Planting the more traditional lighter soils associated with pine can reduce vegetative competition, but increases the risk of drought and nutrient stresses associated with these drier sites. As we accept lower yields both by allowing more vegetative diversity in our plantings and by minimizing the use of herbicides, we increase the need for occasional control of redheaded pine sawfly populations.

Not controlling vegetative competition

Not using hexazinone to control competing vegetation would have negative social and economic impacts on the Michigan state forest system. The result would be poorly stocked plantings, sub-optimizing returns on investment to the people of the state of Michigan and reducing the supply of valued wood products for which these plantings are managed.

Hexazinone is a key herbicide used in the control of many broadleaf weeds that are deleterious to the survival and growth of red pine.

Hexazinone is a triazine herbicide used for pre and post emergent control of many annual, biennial, and perennial weeds, as well as some woody plants. Hexazinone is a systemic herbicide that works by inhibiting photosynthesis in the target plants.

Hexazinone is primarily a soil active herbicide with some contact control, readily absorbed by leaves and roots. Since it is tolerated by many conifer species it is a very safe and effective herbicide for reducing competition from broad-leaf trees and bushes as well as annual and perennial weeds. Unlike other herbicides, it has the advantage of use in the spring and mid summer when red pine is candling (producing new growth). It is uniquely suited for spot treatments of plantings.

Controlling competing vegetation by the judicious use of herbicides will keep young conifers healthy and vigorous therefore greatly reduce the need to control insects which would require the use of insecticides.

Formulation

Hexazinone is available in soluble concentrate, water-soluble powder, or granular formulations.

It may be applied either before or after planting and maybe applied as a spot, strip, or broadcast application.

The granular formulation works as rain breaks down the pellets thus releasing the active ingredient which can then move downward into the root zone of weeds. On dry sites virtually all precipitation is taken up by plants and very little off-site movement or leaching occurs (Powers et. al)

Both liquid and granular applications are used in forest management. The liquid formulation has better control efficacy and is also appropriate for stem injection and cut-stump methods. Spray applications may also enable a mixture of compatible herbicides and adjuvants to control herbaceous competition.

Granular formulations are applied dry which allows a far wider window of application (timing) with the benefit of reduced drift minimising off target hazards. One formulation incorporates controlled release technology, which provides for delayed release of the active ingredient. Specialist application equipment has been developed for accurate ground and aerial distribution of the granules.

2. Specified controls to mitigate the hazard

The derogation shall specify the controls that will be implemented to mitigate the hazard associated with the use of the pesticide, for example restrictions related to weather conditions, soil types, application method, water courses, etc..

If the specified formulation is considered to reduce the level of hazard then the information on which this claim is based shall be presented, and the applicant shall provide credible independent, third party support for the claimed reduction of hazard.

Specify the controls that will be implemented to mitigate the hazard:

Government regulation

All herbicides registered for use in the U.S. are reviewed and regulated by the U.S. Environmental Protection Agency (USEPA) under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA 1974; 7 J.S.C. 135 et seq., Public Laws 92-516, 94-140, and 95-356) and recent amendments. Herbicides sold in the United States must be registered with the Federal government and in some cases by state regulatory agencies. In California, additional requirements and registration processes are applied that are developed in a transparent governmental rule making arena and subject to full public disclosure and debate. EPA regulations are enforced at the state level through approved agencies. These agencies administer federal legal requirements through training and enforcement programs within each state. Applicator certification or licensing, auditing, pesticide registration and enforcing the terms of the pesticide labels fall within the jurisdiction of the state agencies.

The printed information and instructional material that must be included with registered herbicides that are sold in the U.S. is known as the "label," and constitutes a legal document. These instructions are considered a part of compliance with FIFRA and other Federal regulations, and failure to use an herbicide in accord with label restrictions can lead to severe penalties. The label provides information on the chemical compound(s) comprising the active ingredient(s) of the herbicide, directions for correct use on target plant species, warnings and restrictions, and safety and antidote information. Additionally, information concerning impacts to non-target organisms (particularly threatened or endangered species) is available from both State and Federal Fish and Wildlife agencies (i.e., U.S. Fish and Wildlife Service, Natural Resource Conservation Service, and CA Department of Pesticide Regulation).

Principle 1.1.a., Regional Forest Stewardship Standard for the Lake States-Central Hardwoods Region (USA) requires that “Forest management plans and operations comply with applicable Federal, state, county, tribal and municipal laws, rules, and regulations.” Therefore conformance to 1.1.a requires safe, low-risk application. Performance against label instructions (federal law) and MDA policy (state law) is auditable as are on the ground effects. These should all be used to verify conformance to the standard.

Michigan Forest Pesticide Applications

All Michigan DNR pesticide applications require both an approved Pesticide Application Plan (PAP) and a follow-up Pesticide Use Evaluation Report (PUER). Plans must be approved by two state certified pesticide applicators. One certified applicator develops the PAP which is then reviewed by another certified applicator for final wording and approval.

The following are commonly used PAP statements for aerial applications. They demonstrate care in following the label warning to prevent hexazinone from entering water resources:

- For stands with adjacent surface water, leave a 100 foot no-spray buffer.
- Winds should be low, < 10mph. If tree tops (aspen) are moving, there is too much wind.
- Flight lines should parallel adjacent surface water. This prevents potential non-target exposure and impacts if delays occur in shutting off nozzles at spray boundaries.
- Adjuvants are used to reduce the production of fine spray droplets.
- GIS shape files showing all flight lines with sprayer on and off shall be provided.

MDNR standards require a minimum of a 100 ft untreated buffer next to any water features for both aerial and ground pesticide applications.

Forestry Application

Hexazinone application generally occurs once at the commencement of the rotation as a pre or post planting application. At maximum broadcast rates this equates to the equivalent of 125 grams of active ingredient per hectare per year.

Frequently the application may be as a strip or spot application where as little as 10% to 20% of the site will be treated with the herbicide. Hexazinone is often used as a spot soil treatment in red pine plantings where competing vegetation is not widely distributed. It can be used this way because it does not affect red pine. Such applications greatly reduce herbicide use and non-target impacts.

3. Program to identify alternatives

The application shall describe the program(s) which are in place in the territory concerned or which will be put in place during the period over which the derogation will be applicable, designed to identify alternative pest control methods which do not use highly hazardous pesticides.

Research

A significant role of the U.S. EPA which regulates and controls pesticide use in the U.S. is to continually review and assess pesticides that are lower risk alternatives. Since 1996 the EPA has reviewed tolerances on nearly 10,000 chemicals and introduced new safety standards. As cumulative risk is evaluated and new standards are developed product labels are updated to reduce application rates or even remove products from use. This ongoing review is also incorporated into the North American Free Trade Agreement (NAFTA) and subsequently supported by similar initiatives in Canada. This program gives preference in pesticide registration to reduced risk products. As a result pesticide use in North America continues to develop lower risk products and application techniques. (U.S. EPA, 2007)

Principle 1.1.a., Regional Forest Stewardship Standard for the Lake States-Central Hardwoods Region (USA) requires that "Forest management plans and operations comply with applicable Federal, state, county, tribal and municipal laws, rules, and regulations." Therefore conformance to 1.1.a requires safe, low-risk application. Performance against label instructions (federal law) and MDA policy (state law) is auditable as are on the ground effects. These should all be used to verify conformance to the standard.

Forest Habitat Type System

Michigan's forest habitat type system, as developed by Kotar and Burger, is used as a basis for silvicultural recommendations because of its ecological relevance. The forest habitat types span a wide range of soil nutrient and moisture regimes from relatively low nutrient and moisture content to rich sites. Each habitat type has its own unique, ecological signature. Management guidelines take these differences into account.

As a general rule, forest health concerns are lowest on higher quality sites (containing adequate soil moisture and nutrients). Risk of redheaded pine sawfly (RHPS), for example, is greatest on poor quality sites. Established red pine on high quality sites are generally less susceptible to drought stress, winter burn and other environmental stressors that can predispose trees to attack by RHPS. However, proper site preparation is critical to ensure adequate establishment of red pine on high quality sites, especially where hardwood competition is established, or where hardwood encroachment is a concern. Controlling competition is particularly important during the first five to eight years on these sites. Planting red pine on high quality, non-red pine sites can exacerbate the above stated problems and the costs of managing are likely greater with less certain results, although returns can be very high. This issue points strongly to using forest habitat type in matching trees to sites.

In addition to site quality, management practices, weather conditions, and many other factors can have a great impact on red pine forest health. These impacts vary depending on the type of forest pest involved:

- Redheaded Pine Sawfly: Avoid red pine management in frost pockets, wet areas, heavy sod and other stressful site conditions such as drought prone areas that can predispose trees to attack. Avoid hardwood edges where shade and encroachment can stress red pine.

- Maintain Red Pine Using “Classic” Red Pine Management.

General criteria used to identify suitable stands:

-- Red pine present 60 – 80 years of age.

-- The stand is currently a planted red pine stand

-- Little or no existing deciduous understory nor overstory other than red pine.

-- Little or no existing hemlock understory nor overstory.

Integrated Pest Management

Hexazinone use is integrated with other management actions. As stated, reducing vegetative competition by use of herbicides and furrowing produces a more vigorous and therefore, less pest susceptible planting. Guidelines for reducing the susceptibility and vulnerability of red pine plantings to the redheaded pine sawfly include:

1. When practical, avoid planting on excessively dry or infertile soils.

2. Maintain distance of 50 feet from hardwood edges.

3. Control heavy shrub, weed and grass competition.

4. Plant in compact blocks to reduce amount of edge.

Red pine sites by their nature will have occasional redheaded pine sawfly epidemics. Site selection can not eliminate the need for sawfly management, but it can help reduce the need. Some sites have frost pockets or areas of lighter soils with very low moisture holding capacity. Improving our ability to recognize high risk features associated with redheaded pine sawfly susceptibility and vulnerability and not planting trees in these areas will reduce sawfly impacts and the need to use diflubenzuron.

A project to evaluate the red pine resource on state forest lands is currently under way. This project seeks to identify the most appropriate sites to plant red pine. Likewise the project will identify which sites, currently planted in red pine should be managed either for natural regeneration of pine or conversion to other forest types. This initiative will help refine the precision of management prescriptions which will help reduce the risk to RPHS in future red pine plantings.

4. Stakeholder support

All applications for derogations shall include evidence that the application is supported by social, environmental and economic stakeholders in the best interests of promoting FSC's goals in the territory concerned. It is the responsibility of the applicant to present this evidence in support of their application (see summary of procedures in Section 8, below).

The level of stakeholder support required will be evaluated taking account of the geographical scope of the derogation, the justification of need, and other factors include in the application such as the strength of the program to identify alternatives, and the level of controls to mitigate the identified hazards.

A written letter of support by the Board of Directors of the FSC National Initiative for the territory concerned shall normally be considered sufficient evidence of national stakeholder support for the application.

Describe the consultation that has taken place and summarise the results:

A letter addressed to DNR stakeholders, was written by Lynne Boyd, the DNR Division Chief for Forest, Minerals, and Fire Management Division. The letter is dated July 31, 2007, and provides background information in regard to the derogation process and procedure, a list of chemicals for which derogation is being requested, a web address where the actual derogation applications can be viewed, and contact information for the submission of comments. The stakeholder consultation period began August 1, 2007 and ended September 16, 2007. The letter was on DNR letterhead, and its content is shown below:

> Dear Stakeholder:
>
> SUBJECT: Opportunity to Comment on Department of Natural Resources Application for Pesticide Derogation (Temporary Exemption) to the Forest Stewardship Council International
>
> The 3.9 million acre Michigan State Forest System is certified by two forest certification systems, the Sustainable Forestry Initiative (SFI) and the Forest Stewardship Council (FSC). The FSC closely scrutinizes the use of pesticide products on certified land, and maintains a list of chemicals that are prohibited from use unless special temporary permission is requested from and granted by the FSC (this is referred to as "derogation") to use them.
>
> The Department of Natural Resources (DNR) is requesting derogation to utilize five pesticides currently on the FSC list. Consistent with FSC policy requirements, we are seeking comments from interested parties on our request for pesticide derogation.
>
> The formal derogation requests, which include detailed information about proposed use of the chemical, are posted on the DNR Forest Certification web site at: http://www.michigan.gov/dnr/0,1607,7-153-30301_33360---,00.html. The following five chemicals are in our derogation request to the FSC:
>
> 1. Hexazinone (Velpar) - one of the most widely used forestry herbicides in the United States. It has been in use for more than 30 years to control brush and weeds during the establishment of new stands of trees.
> 2. 2,4-D, 2-ethylhexyl ester - used for habitat restoration and control of invasive exotic plants. It provides a management tool for some difficult to control species.
> 3. 2-(2,4-DP), dma salt (= dichlorprop, dma salt) - used for habitat restoration and

control of invasive exotic plants. It provides a management tool for some difficult to control species.

4. Dicamba, dma salt - used for habitat restoration and control of invasive exotic plants. It provides a management tool for some difficult to control species.
5. Diflybenzuron (Dimlin) – used on a limited scale to protect young red pine plantings from Red-headed pine sawfly.

All five of these pesticides have been approved for use by the Environmental Protection Agency, and if used, would be applied according to label guidelines and only by licensed applicators. The use of these chemicals will be minimized, applied on a limited number or acres, and only used when necessary as part of an integrated pest management program to achieve defined management objectives. When use of chemical pesticides is necessary, we select the least toxic, least environmentally persistent, narrowest spectrum products that provide cost effective control and are labeled for the target species.

The DNR invites your comments on use of these pesticides. Please submit your comments by September 16, 2007 to Dennis Nezich, Forest Certification Specialist at Marquette Operations Service Center, 1990 US 41 South, Marquette, MI 49855 or by email at nezichd@michigan.gov. We will compile all comments, include them in the derogation requests, and forward them to the FSC. If you have questions, please feel free to contact Mr. Nezich at 906-228-5245.

Sincerely,

Lynne Boyd, Chief
Forest, Mineral, and Fire Management
517-373-1246

Stakeholder consultation actions:

1. Lynne Boyd's letter was sent to members of the Michigan Forest Management Advisory Committee on August 12. 2007, following discussion at their August 1, 2007 meeting. The Forest Management Advisory Committee (FMAC) is a 19-member committee whose members are appointed by the Director of the Michigan Department of Natural Resources (DNR). The committee's role is to assist the DNR in balancing the environmental, social and economic issues surrounding forest management. The committee members range from timber producers to university representatives to environmental interests, and assist the DNR with management problems, opportunities and challenges related to Michigan's state forests.

2. A prominent notice was posted on the opening page of the Department of Natural Resources internet web site for the entire public input period that began on August 1, 2007 and ended September 16, 2007. This notice, which is displayed below, was linked to Lynne Boyd's stakeholder letter and to copies of the chemical derogation applications.

> DNR Asks for Stakeholder Comments on Chemical Derogation
> The Department of Natural Resources (DNR) is requesting derogation to utilize five pesticides. Consistent with the Forest Stewardship Council (FSC) policy requirements, we are seeking comments from interested parties on the applications for pesticide derogation.

3. Lynne Boyd's letter was sent to members of the Michigan's Sustainable Forestry Initiative, Statewide Implementation Committee. Membership includes representation from forest industry, forestry consultants, universities, forestry associations, and loggers.

4. Lynne Boyd's letter was sent to right-of-way maintenance contractors who have held permits for application of chemicals on state forest land.

5. A message was posted on the Enviro-Mich Listserv. Enviro-Mich is sponsored by the Sierra Club – Mackinac chapter to serve the needs of the citizen environmental and conservation community and citizen's grass roots organizations in Michigan. Enviro-Mich functions like a discussion forum and an automatic e-mail distribution system. Any person who is subscribed to Enviro-Mich can send e-mail to the Enviro-mich address and it will be automatically distributed to the entire list. Cara Boucher, Resource Management Section Leader for the DNR FMFM Division, submitted a notice on September 7, 2007. The notice was titled "Request for public input on Michigan DNR's FSC chemical derogation applications", and included the content of Lynne Boyd's stakeholder letter.

6. A request was submitted to the Michigan Environmental Council (MEC) by Cara Boucher, Section Leader in FMFM Division, to forward Lynne Boyd's letter to MEC member organizations for their information. The MEC provides a collective voice for the environment at the local, state, and federal levels. MEC works with 75 member groups and their collective membership. The request was originally made on August 1, 2007. Subsequent contact with MEC on September 11, 2007 revealed that a notice had not been forwarded to members. MEC requested an extension of time for members to comment on the derogation applications. This was granted, with comments due by September 20, 2007.

7. An article appeared in the Detroit Free Press on September 6, 2007 titled "Your questions answered: Defining DNR's derogation". This article was written by Free Press Outdoor Writer Eric Sharp (see http://www.freep.com/apps/pbcs.dll/article?AID=2007709060405) . The article below includes background information about the FSC derogation process, noted the chemicals for which derogation is sought, and provided DNR contact information for submission of comments. The Free Press also provides an opportunity for reader comments (a single comment was submitted to the Free Press web site).

Your questions answered: Defining DNR's derogation

September 6, 2007

BY ERIC SHARP

FREE PRESS OUTDOORS WRITER

Several readers e-mailed to ask about an item on the Department of Natural Resources Web site that asks for public comment on the "derogation" of five chemicals for use in forestry.

Derogation simply means deviating from a standard and using something in a way that it is not used normally or hasn't been used before.

Dennis Nezich, who works in the Marquette office of the DNR's Forestry, Minerals and Fire Control division, said the chemicals are needed to control the growth of brush, invasive species and a tree-damaging insect.

The reason the state must seek public input is that three years ago the DNR had its forestry program certified by an international body called the Forest Stewardship Council, and the FSC must approve the use of the chemicals.

Part of that approval process requires a chance for stakeholders and members of the public to comment.

Michigan has 3.9 million acres of state forests, and the forestry programs are overseen by both the Sustainable Forestry Initiative and the FSC. The latter organization is especially concerned with things such as the use of chemicals.

"This is an opportunity to take a closer look and ensure that there isn't an undue risk in using the chemicals this way," Nezich said. "The plan will be to use them on a limited basis if it's approved by the FSC."

The DNR didn't join the Forest Stewardship Council just for the cachet. Companies around the world are thinking greener, and many of them won't buy forest products unless they have the FSC seal of approval.

"It's not just in Europe," Nezich said. "A good example is Time Warner. They demand FSC certification," and Time Warner buys a lot of pulpwood to make paper.

Three of the five chemicals will be used to kill invasive species such as knapweed, garlic mustard and autumn olive, and although the chemicals are approved by the U.S. Environmental Protection Agency, the FSC sets a tougher standard.

But it allows the testing to be done by for-profit private agencies, and Marvin Roberson, a forest ecologist for the Sierra Club who lives in Marquette, said that's the suspect link in the chain of protection.

"The Forest Stewardship Council was formed in response to deforestation in the rain forests. It's a good organization. But it hires third-party people to do the certifications. Some of them boast that they've had 100% success in getting (clients certified). That makes you wonder.

"I also am concerned about the standards they use. The standard they're using for Michigan says that the state doesn't have (forest) plantations. But we do -- we have thousands of acres of jack pine plantations."

But overall, Michigan getting FSC certification has been a good thing.

"I'd rather be complaining about a bad statewide standard than having no standard at all," Roberson said.

The chemicals to be derogated are hexazinone, Dimilin, dicamba, 2,4-D dimethylamine salt and 2,4-D 2-ethylexter ester. Members of the public can comment by writing Nezich at the DNR, Marquette Operation Center, 1990 U.S. 41 South, Marquette, MI 49855, or by sending e-mail to him at nezichd@michigan.gov.

Stakeholder Comments received (in chronological order):

1. Izaak Walton League of America, August 13, 2007:

"The Michigan Division of the Izaak Walton League of America supports the Michigan Department of Natural Resources application for pesticide derogations for use of the five pesticides listed in Lynne Boyd's letter of July 31, 2007. Those pesticides include: Hexazinone, 2-3-D, 2-ethylhexyl ester, 2-(2,4_DP) Dicamba, and Diflybenzuron."

"We recognize in some instances there are no good substitutes or the substitutes may be cost prohibitive. As long as the pesticides remain registered for use by the EPA and the Michigan Department of Agriculture, we believe their use should be continued in the manner outlined in Ms. Boyd's letter"

2. Ken Rauscher, Director, Pesticide and Plant Pest Management Division, Michigan Department of Agriculture, August 15, 2007:

   "On behalf of the Michigan Department of Agriculture (MDA), Pesticide and Plant Pest Management Division, I am providing the following comments on the Department of Natural Resources Application for Derogation (temporary exemption) to the Forest Stewardship Council International.

   MDA is the state agency responsible for pesticide use regulation, including the annual registration of pesticides for use in Michigan. Your request for the use of the 5 pesticides; Hexasinone (Velpar); 2,4-D, 2-ethylhexyl ester; 2-(2,4-DP), dma salt (=dichlorprop, DMA salt); Dicamba, dma salt; and Diflubenzuron (dimilin) under the pesticide derogation application is supported by MDA under the following conditions:

   1. The specific pesticide chosen is registered for use in Michigan. Currently there are numerous pesticides registered in Michigan that contain the 5 pesticide active ingredients listed in the application.
   2. Any pesticide use occurs in accordance with label use directions and in compliance with the provisions of the Natural Resources and Environmental Protection Act, Act 451, Part 83, as amended and rules promulgated thereunder.
   3. Pesticide applicators are certified or registered in accordance with the Natural Resources and Environmental Protection Act, Act 451, Part 83, as amended, and the application of any restricted use pesticide occurs by or under the direct supervision of a Michigan certified applicator.
   4. Any pesticide application contract issued under the application will only be awarded to a business licensed by MDA for the commercial application of pesticides in all applicable categories of use in accordance with the Natural Resources and Environmental Protection Act, Act 451, Part 83, as amended.

   If you have any questions regarding the above comments, please contact Brian Rowe, Pesticide Section Manager, at (517) 373-4905."

3. Jerome Barry, President, Owen Specialty Services, Inc (OSS), August 16, 2007:

   "OSS has been engaged in habitat restoration and maintenance since inception in 1993. After review of the intended use for the DNR application for pesticide derogation, I am in favor of said derogation and would probably recommend that the list of products be expanded to include some other products. I believe that there is more than enough Data available from studies and all related industry to show that "Best Management Practices" often must include the qualified and judicious use of these named products to control, and manage specific plant species in the forest population to restore habitat, maintain habitat, limit competition which would harm the plants being established, eliminate invasive species and overall help maintain the healthy diversity of the forest."

4. Mr. Richard Phillips, August 25, 2007:

   "The Deregulation of Pesticides is not a good thing. Here in Oakland/Wayne Counties and southeastern Michigan where I grew up in the 60's and 70's I remember all of the bugs that were around, some bit, some ugly and some so beautiful a picture couldn't do them justice. Most all are gone from this region because of the use of pesticides, some bugs were killed

off from the homeowners spraying other from more commercial concentrations sprayed from the air. The eco-ness was effected too, birds, fish, mammals-some couldn't reproduce without deformities! The dragon flies and lighten bugs are only now making a come back to most of this area along with the Hawks. Lets not make the same mistake twice."

5. Mr. Fred Kochis, General Foreman, State Certified Pesticide Applicator, September 7, 2007:

   "After reviewing the derogation application information on the MDNR website, Thunder Bay Tree Service, LLC fully supports your request for derogation of the five materials listed:

   1. Hexazinone (Velpar)
   2. 2,4-D, 2-ethylhexyl ester
   3. 2-(2,4-DP), dma salt (= dichlopprop, dma salt)
   4. Dicamba, dma salt
   5. Diflybenzuron (Dimlin)

   Any integrated pest management program relies on the widest possible assortment of safe and effective methods of pest control. As such, we believe the proper use of these five materials can contribute to a safe and effective I.P.M. program for the establishment and maintenance of Michigan's state forests."

6. Reader comment re: Detroit Free Press article "Your questions answered: Defining DNR's derogation", September 8, 2007:

   "If I'm not mistaken, add 2-4-5-T to it and you have agent orange, which by the way was the best broadleaf herbicide I'd ever used. If the Defense Department had used this product as it was directed, the V.A. wouldn't be having the problems it has now. I would think the better the public and private sectors knew about these chemicals, the better off we'd be, and this is an excellent way to do so."

7. Mr. Lee Jackson, Smurfit-Stone Container, Ontonagon, MI, September 11, 2007:

   "These selected chemicals are industry standards that should be available for use on state of Michigan lands."

8. Mr. Charles Cubbage, Enviro-mich list serv comment, September 15, 2007:

   The following note was posted on Enviro-mich by Mr. Charles Cubbage on September 14, 2007, following some correspondence with the DNR and after additional information was posted on Enviro-mich by the Michigan DNR:

   > "Thanks for posting the added information. I should imagine that among EMers there are those who would appreciate a note when DNR makes such applications. The transparency is appreciated!"

Contingency plan to eliminate use of the pesticide during the derogation period
Derogations shall normally be issued for a five-year period. There is a presumption against renewal at the end of this five-year period unless it can be clearly demonstrated that the program to identify alternatives has been fully implemented but has failed to identify an acceptable alternative in the available time.

Forest managers seeking certification under an approved derogation should therefore ensure that they have a contingency plan in place to eliminate use of the pesticide prior to the end of the derogation period. If a derogation is not renewed, the continued use of a highly hazardous pesticide after the expiry of the derogation would be considered a major non-compliance and would lead to the withdrawal of the certificate.

As a condition of use of a derogated pesticide, forest managers shall record quantitative and qualitative information about their use of such a pesticide, and this information shall be included in the certification body's evaluation reports and in all subsequent surveillance reports.

Compliance with these requirements would need to be demonstrated by an applicant for certification at the Forest Management Unit (FMU) level and be verified by the certification body prior to the issue of a certificate. However, this evaluation is independent of the decision to issue a derogation for use of a pesticide over a geographical area.