

**TREE MARKING PAINT COMMITTEE
MEETING NOTES-2008
ASHEVILLE, NORTH CAROLINA
May 13-15, 2008**

MAY 13, 2008

Dave Haston of the San Dimas Technology and Development Center (SDTDC) started the meeting with a general welcome and requested an introduction of those attending.

Attendees:

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|--------------------|-----------|-----------------|---------------|
| Gerald Ryszka | Region 2 | Gary Helmer | WO – OSOH |
| Kim Newbauer | Region 3 | Andy Sadler | WO – LEI |
| Jacob Somerset | Region 4 | Kelly Koepp | WO – AQM |
| Dan Merritt | Region 5 | Jon Menten | BLM – WO |
| Frank Duran | Region 6 | Walt Smith | BLM – O and C |
| Sandy Henning | Region 8 | Margaret Conroy | GSA |
| Ken Dinsmore | Region 10 | Randy Terrill | NCP Coatings |
| Ted Sandhofer | NFFE | Sherman Drew | NCP Coatings |
| Dave Haston | SDTDC | John Thompson | LHB |
| Bob Simonson | SDTDC | Mark Epstein | LHB |
| Richard Fitzgerald | WO – FM | Dave Robson | LHB |

Introductions

Role of SDTDC – Bob Simonson: Bob gave a brief description of the role of SDTDC. San Dimas is charged with resolving tree marking paint (TMP) technical issues. Part of this responsibility is to coordinate activities of the tree marking paint committee.

WO Forest Management – Dick Fitzgerald: Dick gave an update on Washington Office Forest Management including transformation, market conditions, and a recap of past paint issues and the role of this committee.

NCP Coatings – Sherman Drew: Sherman emphasized NCP Coating's commitment to the TMP program and provided a summary of their research and development capabilities, as well as discussing other products and customers (military and DOD, especially the US Navy). Because of their commitment to meet customer needs, Sherman indicated that their biggest expense is research and development. Any ideas the group has should be expressed to NCP so they can look into it.

Light House for the Blind (LHB) – John Thompson: Along with R&D, LHB attempts to find paint, cans, labels, etc to make a quality paint as inexpensive as possible that is delivered on time and intact. Mark Epstein worked hard with NCP and others to help develop the aerosol that is used today. LHB is also very interested in safety as a non-profit, not only for their employees but also for their customers and associates.

Company Presentations

Lighthouse for the Blind

LHB employs the equivalent of approximately five (5) full time blind individuals in the TMP program.

TMP volume in total paint units of all sizes except for water borne (WB) quarts has been steady, and actually up a bit in the last couple years, with 2008 expected to be down a bit. WB quarts have been fairly steady.

Last year the decision was made to discontinue citrus gallons. LHB recommends discontinuing gallons of Rain Resistant (RR) black, white, green and yellow. They had zero sales of these in both 2007 and 2008.

The committee agreed to drop these RR colors in gallons.

LHB also suggested removing black WB gallons which sold only 148 in 2007 and averaged about 185 for prior years. They have paint that is reaching its age on delivery (AOD) date. They have not done a good job of letting the Forest Service know that, but they intend to start so that it can be ordered if needed prior to that.

TMP shipping – Most orders are shipped within 3 days. Orders must be shipped complete, so LHB may hold an order longer than 3 days in order to complete it. All orders are shipped LTL or UPS. All shipments contain a note to carriers that a signature and delivery notification is required, but because of the remoteness of some locations and the small shipping companies that serve these areas some still get dropped off without either. Packing lists are sent with all shipments, but sometimes get missed.

Paint cost: Shipping has become an enormous cost, mainly due to the astronomical fuel surcharge. Also the cost for resin (paint) is very high. Cans are the second largest cost because steel prices have also increased (~30% this year). Sherman Drew from NCP coatings mentioned that petroleum products in general are increasing costs for everyone from pigment providers to steel. Everything we purchase has a fuel surcharge now because of the cost of petroleum.

Frank Duran asked LHB about paint can labels: There is a lot of concern from the field about labels coming off the container. Can we go back to stamping directly on cans, as labels tend to fall off and lose batch # and other information. Information is currently printed on aerosol cans, but not quart cans.

Action Item: LHB to investigate purchasing another inkjet machine to print information on the bottom of the quart cans. The committee requested the following information be printed on cans: paint type (A, B, C or D), manufacturing date, lot number, and color. **Update:** LHB implemented ink printing information on quart cans effective 6/08.

NCP Coatings

Randy Terrill gave a presentation of NCP Coatings products and services. No notes were taken per his request. After Randy's presentation, several issues were discussed:

Jon Menten asked about shelf life. A BLM district wanted to get rid of paint because of the perception that it was going bad. Is two years a good shelf time?? NCP says it would be ideal to use paint in one year. However, if it is turned upside down and shaken, it should be good for 5-6 years. If there are problems with solids in paint they should be returned to NCP for testing.

Because orange paint is so expensive, alternative colors were discussed. The WB/RR hybrid paint was also discussed. The developmental hybrid paint contains the best properties of WB and RR paints, and could provide a lower cost orange paint. The primary objective in the development of the hybrid paint is

to improve durability with the addition of UV absorbers. The two hybrid colors were discussed. Most committee members agreed that the “fire orange” was an acceptable color, but thought the “butterscotch yellow” would blend-in too much with bark. Currently both San Dimas and NCP are doing additional weathering testing on the hybrid paint, including field test sites. Along these lines, Randy also recommends not making a decision to go with a new paint until its been thoroughly tested. Frank Duran agreed with this, but also thinks one type of paint (instead of three potentially) would be more economical. Dick Fitzgerald agreed as well, and emphasized that durability is an important issue, as long-term stewardship contracts are becoming more widespread.

Randy stated that NCP’s goals are to maintain a user-safe product, maintain long term stability, improve product performance, and provide lower cost options.

2007 Accomplishments / Action Item Review

- Field test sites photos and inspection reports were added to the website.
 - The test site application instruction form was updated to add a requirement that digital photos be provided (with the inspection forms).
- The Hazmat Designers Guide was added to the website for reference.
 - Frank Duran recommends all Regional Reps have a Hazmat Designers Guide in case folks ask questions about storage (the Guide can be used to assist with a response).
- Separate web pages are being developed for “Tech Tips,” including field tips, ordering tips, paint gun cleaning and storage.
- The Beefy Backpack webpage has been updated. San Dimas still has a reasonable inventory of backpack components. If anyone wants them they will need to make a request a little in advance so they can be built.
- Qualified Products List (QPL) testing –Solvents and metals testing is complete. Performance testing is complete except accelerated weathering. Accelerated weathering tests will be completed next week.
- Aerosol can disposal and storage has been updated. Puncturing of aerosol cans is no longer required.
 - The draft 2409.12 has been updated to reflect the new disposal requirements.
 - The JHA has been updated to add storage and aerosol can disposal information.
- Hybrid paint has been applied to test sites in Regions 3, 5, 6, and 8.

Remaining Action Items:

- **SDTDC** to add a section to the TMP website where spare paint from across the county can be listed, as well as listing LHB paint that is approaching age on delivery.
- Timber theft case procedure (**SDTDC**). A list of approved labs and test procedures should be added to the committee members-only portion of the TMP website. A 2007 theft case may be used as a case study.

General Services Administration

Margaret Conroy stated that GSA is preparing to put a new contract together. They are currently accepting ideas and suggestions for the contract, and Margaret asked if there are any upcoming specification changes. Dave Haston stated that the paint specifications shouldn’t change much but there will be some minor refinements based on the QPL testing.

Margaret indicated that there have been some problems with the USDA Advantage system, but she is not too involved with it. She has also had some calls where folks aren't getting responses to their calls from GSA.

Regarding USDA Advantage, most ordering problems are caused by improper AACs being used, or credit card name or number changes. Kelly Koepp is usually able to assist the person in solving the problem. Sandy Henning stated that most of the paint problems she comes across are with ordering. Kelly emphasized that the regional paint representatives need to give her any additions/changes to the lists. Dave Haston summed-up the USDA Advantage problems as either a lack of knowledge on how to order, a name issue on a credit card, a GSA profile issue, or a computer issue that requires a EUSC ticket. According to Kelly, EUSC cannot deal with USDA Advantage issues; it is something GSA needs to work on because EUSC cannot get on the GSA site to deal with it.

Margaret reported that someone recently ordered paint using the old Fedstrip system. Fedstrip orders were supposed to be cut off on September 30, 2007. It was agreed that Fedstrip orders should no longer be placed, and they should be rejected by GSA. Margaret agreed and she will immediately notify the individual making the paint order, rather than forwarding the Fedstrip order to LHB. Bob Simonson suggested that the regional representative be contacted so they can inform the person of the proper ordering procedure.

Another ordering concern brought up by Kelly was that she gets calls related to orders being rejected when new names are added to the list. There appears to be a delay between the time Kelly *submits* the updates and the time when GSA *implements* the updated lists. Kelly stated that she would not send out the message to the field until after GSA has implemented the new updates to ensure the field knew when the latest update was in the system.

Acquisitions Management

Kelly Koepp reported two minor issues. The first is that employees should not be contacting her directly— they should be contacting their regional paint representative as a first step. The second issue was a recommendation that someone be at the receiving office to receive the delivery. It should be the person that orders the paint. Kelly suggested reviewing the names on the FS Address list to ensure the contact listed for the office is the one who will accept the delivery. The FS address list is separate from the cardholder list.

Shipping Problems and Fixes

The number one shipping problem is lack of required notification prior to delivery. This is especially troublesome with small carriers with infrequent deliveries to remote district locations. LHB has attempted to address this problem several ways, and has apparently run out of ideas.

Test Site Reports and Status

Region 3 (Kim Newbauer): The R-3 test site was checked last week. All paint looks good, minimal to no fade. On rain resistant pink applied in 2005, the tracer was a little slow to react, but it did react. The hybrid butterscotch yellow and fire orange was applied on ponderosa pine blackjacks just last week and they both look pretty good. Will continue to monitor and report. **Action Item:** Kim will provide electronic file of photos and evaluation reports to San Dimas. **Update:** Reports and photos were submitted to San Dimas.

Region 5 unofficial test site (Dan Merritt): Butterscotch yellow and fire orange hybrids were applied last fall on a site on the east side of the Plumas NF near Nevada. This winter they have received lots of straight-on blasts w/ice and snow, which was some of the reason these hybrids were developed, but they seem to have held up pretty well so far.

Region 6 (Frank Duran): R-6 could not access site yet due to too much snow. **Action Item: Frank** to provide electronic inspection reports and photos to San Dimas when inspections are completed.

Region 8 (Sandy Henning): Sandy checked the site in February. She usually has the district conduct the site inspection, but there were some issues last year, so Sandy checked it herself. She noted some non-satisfactory results on tracer, but only on hardwood trees. One problem she found was that the folks applied the paint at the test site did not always mark what type of paint it was, therefore reporting was a bit difficult.

There is some concern about visibility of white paint on hardwood trees. Archeologists are pretty concerned. No other regions are experiencing problems with white. A secondary color for cultural resources was suggested. Dick Fitzgerald said white was developed because of a lawsuit in Region 3, and the need to standardize. He agreed that we might need a secondary color for cultural resources, however this is concern that any secondary color should not be too bright (to not draw attention to the site). Dick made a additional comment concerning alternate colors in general. The number of colors was reduced at one time to minimize the colors and reduce cost by reducing what needed to be produced.

Region 9 (Mike VanDyck via written report): Site inspection forms and photos were provided by Mike. Unsatisfactory color fade was found on waterborne paint that was applied in 2006 – specifically yellow, pink, green and white on yellow birch; yellow, orange and white on sugar maple; and yellow, pink and white on aspen.

Qualified Products List Testing

Performance testing has been completed for the most part. This testing was performed in cooperation between NCP Coatings and SDTDC.

Quantitative testing: It took some time for San Dimas to locate a qualified testing laboratory that was willing to test paint samples. EIS Analytical Laboratory in South Bend, Indiana was selected to perform metals and solvents testing. Using the EPA testing methods identified in our paint specifications, no prohibited metals were detected above allowable limits. However, there were some solvents found to exceed specification limits in trace amounts. Formaldehyde testing still needs to be performed by a different lab (EIS does not test for formaldehyde).

Regarding the solvent testing results – we need to determine if the paint formulation has changed since it was introduced, or if laboratory test equipment is more sensitive since the original WB and RR paint formulations were tested. The National Institute for Occupational Health and Safety (NIOSH) conducted exposure studies of employees using the new WB and RR paints in 1999 and 2000. The NIOSH reports are available on the SDTDC tree marking paint website: <http://fsweb/programs/fm/fy03/tmp/tmphs.shtml>

Gary Helmer said we should not be concerned unless someone is exposed for at least 8 hours, and since painting is done outside, it shouldn't be a problem. He suggested finding out what the applicable occupational exposure limit are, and make those the levels of concern (instead of these levels we set ourselves many years ago).

Frank Duran indicated that the original specification limits came from the Navy and their paint contracts for bridges. Bob Simonson said the Navy limits were intended to minimize the amount of paint coming off the bridges to avoid wildlife exposure, and in other cases we specified the lowest level that was in that paint at that time. Frank also stressed the importance of clarifying how the paint was tested and reported so we can provide open, accurate, and honest information to our employees. Current testing equipment/detection devices may be the issue if it provides more accurate readings than was available previously. Hence the levels may be very similar to what they were originally but due to more accurate readings it may now appear that they are not meeting the specification.

Action Item: Dave Haston will organize a meeting to review previous NIOSH exposure studies, current paint specifications, the recent solvents and metals test results, potential additional testing, and any applicable specification changes. **Update:** The meeting has been scheduled for July 22-23 in Denver. The following people are scheduled to participate:

- Ted Sandhofer, NFFE representative
- Tim Radtke, Public Health Service Officer and Certified Industrial Hygienist (assigned to Interior)
- Kolby Hirth, Forest Products Laboratory Analytical Chemist
- Eric Esswein, NIOSH Certified Industrial Hygienist and author of previous NIOSH exposure studies
- Kim Newbauer, representing the TMP Tech Sub-Committee

Law Enforcement

Patrol Captain Andy Sadler represented John Carpenter of the Washington Office.

Theft case in Arkansas: Special Agent Doug Ryan went through State crime lab. The crime lab worked with Randy Terrill to establish how to test paint the paint. There is concern that the formulation could become public record in court. This raised the issue of what types of labs to use for investigations. It was agreed that state crime labs are preferable because they have established procedures/methods for law enforcement cases.

Captain Sadler indicated that contract marking crews are a big concern relative to tracer paint accountability. Some committee members suggested that we should not do any contract marking, while others felt that good sale administration procedures should take care of the majority of problems that might arise. It was suggested that we consider different colors with a different tracer to assist with accountability when we do contract marking.

Paint Performance

There are still UV issues with orange waterborne paint. Jerry Ryszka said that the major timber forest in Region 2 cuts ponderosa pine, and they are having durability problems with the WB paint. He feels the hybrid paint might resolve some of the problems they are having and would like to know when it can be used on a production basis.

It was generally agreed that we should wait until a reasonable test program has been completed, including accelerated weather laboratory testing, and at least a couple of years on test sites with high UV exposure. In the meantime, RR paint (although more expensive than WB), is a short term solution in high UV exposure areas that are experiencing durability problems. If a smaller sale is developed NCP can provide a case or two for them to try as a real life test of the hybrid paint.

Action Item: NCP and SDTDC will perform side-by-side accelerated weathering tests of WB, RR, and hybrid paint samples.

Aerosol Can Disposal

Frank Duran reported that there were two hazardous material audits on Region 6 forests. Each audit identified aerosol can puncturing as a problem. Homemade can puncturing devices are not allowed. Frank consulted with the environmental staffs in California, Oregon and Washington, and determined that RCRA-empty cans can be disposed of without puncturing and drying. Historically, the main reason for puncturing and drying was tracer accountability. LHB determined that the contents of over 100 empty paint cans would have to be collected to equal the volume of a single quart can.

Subsequently, a new disposal procedure was developed. The new procedure is to use the aerosol cans until all of the propellant is expelled. Paint managers/custodians must verify that all cans are empty. Additional disposal requirements include removal of the can label and nozzle. Defective cans must be disposed of as hazardous waste. WO Law Enforcement was consulted and had no issues with the new procedure. The 2409.12 handbook draft was updated to reflect the new procedure. The JHA was updated as well.

May 14, 2008

Health and Safety

Gary Helmer attended the meeting on behalf of the WO Office of Safety and Occupational Health (OSOH).

The safety and occupational health manual/handbook has been recently rewritten. The changes include a more extensive chapter on hazardous materials. It is currently in the Federal Register and under 120 day review. Hazardous materials must be inventoried every quarter. Gary is not sure who is responsible for the inventories. Paint falls within the inventories for hazmat. The accident investigation chapter is not yet on the website, but will soon be out for its 120 day review.

Action Item: Gary requested that the committee review hazardous material chapter and that FSH 2409.12 be provided to him for comparison. Frank Duran will work with Gary, and provide him with the draft 2409.12.

Equipment

No equipment issues were reported

Website

Paint Material Safety Data Sheets: Quarts and gallons of the same color and type are on one MSDS. MSDS's are located on the LHB website.

Action Item: SDTDC will add a link on the paint website to the LHB MSDS webpage.

Future Needs

Frank had a couple of comments. The first concerned hybrid paints. Generally speaking, previous products were released to production hastily, primarily due to the requirement to introduce WB paint in a short period of time. Frank suggested that adequate field testing should be done well before a product is released for production. He also suggested developing a new tracer, as court records could reveal the tracer in timber theft prosecution cases.

Randy – The new hybrid paint could replace waterborne paint with improved performance, but the aerosol product would take a while to develop in order to have a stable product. Randy also indicated that there is not a real cost savings with hybrid. Price-wise, “fire orange” is somewhere between waterborne orange and blue. The use of non-organic pigments could reduce the price of a quart by approximately \$3.30. Color would not be as bright but weathering would be improved. Orange, Yellow and Red currently have organic pigments. Total quarts purchased last year was approximately 160,000. The use of non-organic pigments could save roughly \$500,000.

Action Item: Sandy to provide hardwood bark samples for hybrid paint testing.

Bob Simonson suggested that we consider switching color schemes. We use the most expensive color for leave trees. Bob suggested using the more economic blue for a leave trees. It was generally agreed that this could be a difficult transition, especially considering what colors are already on the ground for what purposes.

Dick Fitzgerald commented that a different color can be considered as long as it is a color that is not confusing to cutters. Several regions have had lawsuits from changing paint colors (so a cost savings could be less than anticipated). In the long term an alternative color would be better than switching blue and orange. Dave Haston said we will continue testing the hybrid due to UV issues. Then we can look at some options for more cost effective colors.

Action item: Randy will provide a “fan deck” so we can look at color options to add as secondary boundary and leave tree colors.

Sandy Henning identified the need for a secondary cultural resources color because white can be difficult to see on certain trees. She suggested making pink a secondary cultural resources color. Need to discuss with archeologists.

Margaret Conroy – contract question. Last year we suggested combining RR and WB paint into one contract. Should GSA pursue this? The RR contract does not expire for another year. If the contracts are kept separate, RR pricing will be maintained for another year. Otherwise if the contracts are combined, RR pricing may increase. The committee recommended keeping the contracts separate in order to keep prices as low as possible.

Mike VanDyck (region 9 was not able to attend the meeting, but sent in notes to be shared with the committee. Some of the issues raised by Mike that were not otherwise covered are:

There is no course of action to take when paint at a test site is deemed unsatisfactory. The specifications state that a product will be dropped from the QPL if it is deemed to fail by the qualifying agent. This is a severe consequence and a suitable corrective action should be determined.

Mike suggested that some alternative to paint be explored for marking trees – possibly some type of grease pencil, or lumber crayon or a heavy liquid with a different form of application to avoid many of the

health concerns with paint and its application. It should be relatively easy to apply, be highly visible, durable, waterproof, UV resistant, usable in extreme cold and contain some type of tracer element.

Future Meetings

Ken Dinsmore asked if we all agree that we need to have a face-to-face meeting or can we do video conferencing, or a combination of the two? The group agreed that there are enough issues and challenges, and that face-to-face meetings are beneficial. In the future we can consider an interval longer than one year.

It was recommended to meet in one year due to all the issues that were discussed this year. The week of May 11, 2009 was identified as the tentative meeting dates, in Chicago. The field trip will be to NCP Coatings. Video conferencing can be set up for folks who do not have a travel budget and cannot attend.