



Certification of Incorporation
FIRST. *The name of the Corporation is*
National Paint, Varnish and Lacquer Assoc

By Laws

organized November 1, 1933

Article Sixteen

uer Association, Inc., recognizing our responsibilities
maintain honorable, fair and friendly relations among

SCIENTIFIC COMMITTEE MEETING
 SEPTEMBER 1970

11/24/70
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AGENDA

SCIENTIFIC COMMITTEE MEETING

Sheraton-Carlton Hotel
16th & K Streets, N. W.
September 24 & 25, 1970

Sept. 24

- 2:00 p.m. 1. Call to Order - Mr. Arthur Bohnert, Chairman
 2. Introduction of New Members and Guests
 3. Minutes of last Meeting, April 7 & 8, 1970
 4. Appointment of Advisors
 New Areas Needing Advisors
- 2:30 p.m. 5. Scientific Forum at Annual Meeting
 "Getting More for Your R&D Dollar" - Art Holton
 6. Report of Raw Materials Index Subcommittee - Bill Nordt
 7. Marine Coatings Report - Fred Vogenitz
- 3:00 p.m. 8. Liaison with other Associations - Sid Levinson
 9. Chemical Coatings Report - Bob Pickering
 10. Wood Finishes Report - John Cleveland
- 4:00 p.m. 11. New NPVLA Committees of Interest to Scientific Committee
 Mark Padow, Dir. Trade Sales Div.
 a. HIPAC Committee
 b. Aerosol Manufacturers Committee
 c. Seamless Systems Committee
 12. Paint Industry Education Bureau - Dick Johnson, Director
 13. Automobile Finishes Report - Pete Graham
- 5:00 p.m. Meeting Adjourns for Today
- 5:30 p.m. Reception at NPVLA Building
- 6:45 p.m. Dinner - The Club Restaurant
 1017 17th Street, N. W.
 Washington, D. C.
- 11/24/70 per per 11/24*

N11725.01

Sept. 25

9:00 a.m. 14. Meeting Reconvenes
 15. Research Management Report - Dan Farstad
 16. Information for Paint Specifiers Subcommittee - Arndt Thorson

9:30 a.m. 17. Toxicology Report - Floyd Green
 18. Air and Water Improvement Report - Jim Blegen
 19. Fire Retardant Coatings - Art Bohnert & Roy Brown

10:00 a.m. 20. Occupational Health & Safety Legislation - John Montgomery
Director of Govt. & Industry Relations

Coffee Break

10:45 a.m. 21. Technical Director's Report - Roy Brown

11:00 a.m. 22. Product Liability - Mr. William E. Murane
Deputy General Counsel
U.S. Department of Commerce

12:00 Noon - Lunch -

1:45 p.m. 23. ASTM Committee on Consumerism - Hal Werner & Sid Levinson
 24. Unfinished Business
 25. New Business
 26. Recommendations of Advisors - Written
 27. Time & Place of Next Meeting

3:00 p.m. 28. Adjournment

RAB/fmh

MINUTES
SCIENTIFIC COMMITTEE
HOTEL SONESTA
WASHINGTON, D. C.

APRIL 7 & 8, 1970

Attendance

Members

A.F. Bohnert (Art), Chairman
H.R. Beckwith (Hal)
D. A. Bergren (Dennis)
J. R. Blegen (Jim)
D. E. Callis (Dale)
J.B. Cleaveland (John)
A.C. Elm (Mike)
F.E. Flood (Frank)
F.W. Green (Floyd)
C.L. Lake (Clarence)
R.W. Lettieri (Ralph)
Michel E. Mullier (Mike)
W.F. Nordt (Bill)
F.E. Pschorr (Frank)
J.R. Pickering (Bob)
R.D. Radford (Dick)
S.H. Richardson (Stan)
R. Stickle (Ralph)
H.M. Werner (Hal)
R.L. Whitney (Dan)

Enterprise Paint Manufacturing Co.
Standard T Chemical Co.
DeSoto, Inc.
Ashland Chemical Co.
Fuller-O'Brien Corporation
American Lacquer Solvents Co.
The New Jersey Zinc Co..
Stanchem, Inc.
Hercules, Inc.
Tremco Manufacturing Co.
Benjamin Moore & Co.
Reichhold Chemicals, Inc.
Egyptian Lacquer Manufacturing Co.
Ciba Products Company
Lilly Industrial Coatings, Inc.
ConChemco, Inc.
Union Carbide Corp. (N.J.)
Union Carbide Corp. (W. Va.)
Glidden-Durkee Div. SCM Corp.
National Lead Company

Guests

Umberto Ancona (Bert)
A. Banov (Abel)
R.F. Hall (Bob)
R.H. Higgons (Bill)
R.W. Laurell (Bob)
R.A. Moore (Dick)
L.J. Rockenbach (Rocky)
G.G. Schmidt (Gunther)
S. Spindel (Saul)
S.A. Yuhas, Jr. (Stephen)

McCloskey Varnish Co.
American Paint Journal Co.
The Georgia Marble Co.
Benjamin Moore & Co.
E.I. duPont de Nemours & Co., Inc.
The Sherwin-Williams Co.
Reichhold Chemicals, Inc.
Armstrong Chemcon, Inc.
David Litter Laboratories
Esso Research & Engineering

Staff

R.A. Brown (Roy)
F. Felicione (Frank)
F. Scofield (Francis)

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N11725.02

The meeting of the Scientific Committee was called to order by the new Chairman, Arthur Bohnert, at 2:00 p.m. on Tuesday, April 7, 1970, at the Hotel Sonesta, Washington, D.C., with 33 members and guests attending.

Chairman Bohnert introduced the following guests:

Bert Ancona	McCloskey Varnish Co.
Abel Banov	American Paint Journal Co.
Bob Hall	The Georgia Marble Co.
Roger Higgons	Benjamin Moore & Co.
Bob Laurell (substituting for Pete Graham)	E.I. duPont de Nemours & Co.
Dick Moore (substituting for Art Holton)	The Sherwin-Williams Co.
Rocky Rockenbach	Reichhold Chemicals, Inc.
Saul Spindel (substituting for Sid Levinson)	David Litter Laboratories
Gunther Schmidt	Armstrong Chemcon, Inc.
Stephen Yuhas	Esso Research & Engineering

Chairman Bohnert announced that Dr. Ancona and Dr. Gans had been appointed by the Federation of Societies for Paint Technology to be their representatives on the Scientific Committee for 1970.

The following new members were introduced to the Committee:

Dennis Bergren	DeSoto, Inc.
Mike Mullier	Reichhold Chemicals, Inc.
Frank Pschorr	Ciba Products, Inc.
Dick Radford	ConChemco, Inc.
Stan Richardson	Union Carbide Corp.
Hal Werner	Glidden-Durkee, Div. of SCM Corporation

The minutes of the last meeting, held in Washington on September 30, and October 1, 1969, were approved as written.

Mr. Roger Higgons reported for Mr. Lettieri, Advisor on Test Methods. Mr. Higgons gave an excellent report on the reorganization and recent activities of Committee Z66.1 of the American National Standards Institute. Mr. Higgons was recently appointed chairman of Z66.1 Committee. Bill advised the group that Dr. Jay Arena, a pediatrician from Duke University was the new chairman of the main Z66 Committee. The responsibilities of Committee Z66 are to develop specifications, tests and procedures to minimize home hazards to children which might result in physical injury or poisoning. A copy of Mr. Higgons' complete report is attached to the minutes.

Dr. Floyd Green, Advisor on Toxicology, advised that carbon tetrachloride is now a "banned hazardous substance". This includes mixtures containing carbon tetrachloride. Dr. Green discussed recent large city regulations dealing with lead in paint. A copy of his report is attached to the minutes.

Mr. Bill Ringle, Advisor on Labeling, was unable to attend the meeting. He sent a written report and this was read to the group by Roy Brown. Mr. Ringle's report covered recent actions by NPVLA relating to proposed labeling laws and standards. He also gave a short report of the most recent NPVLA Labeling Committee meeting.

Dr. A.C. Elm, Chairman of the Raw Materials Index Subcommittee, reported on the work done by his group since the last Scientific Committee meeting. A meeting of this subcommittee was held the morning of April 7, in the NPVLA Boardroom with the following members attending: Messrs. Hall, Green, Nordt, Ancona, Yuhas, Felicione and Elm. The complete revision of the Pigment Section of the Index was discussed at this meeting. Dr. Elm discussed the proposed changes in the Pigment Section and announced that this section is expected to be issued in June 1970.

Roy Brown thanked Dr. Elm and his subcommittee members for their work in helping the NPVLA staff to make the Raw Materials Index a more useful publication. The work of the subcommittee has been extremely valuable in keeping this unique publication up to date. The Raw Materials Index is one of the most useful tools available to chemists, purchasing agents and raw materials salesmen throughout the paint industry.

A copy of Dr. Elm's report is attached to the minutes.

Mr. Jim Blegen, Advisor on Air and Water Improvement, reported on current activities in this field. He discussed the final report on the Smog Chamber, which is complete but has not yet been cleared by all the necessary committees. He stated that the Smog Chamber was designed three years ago and is described in Scientific Circular #797. Mr. Blegen gave an interesting discussion of the test procedures used, the materials tested and the results obtained. The publication of Scientific Circulars #798 and #799 will give full details of the Smog Chamber program. It is expected that these will be published very soon.

At the start of the program, the primary emphasis was on the correlation of eye irritation with chemical reactivity. The interest of regulatory agencies has now shifted the emphasis to other parameters, especially to the oxidant production as a means of rating photochemical smog reactivity. Mr. Blegen stated that this was not an unexpected trend.

Mr. Blegen discussed the list of revisions of Government specifications which are in violation of Rule 66. This list was sent to the Committee in March of 1969 by Roy Brown.

Mr. Francis Scofield, Vice President-Technical Affairs, reported on the completion of the three-year Smog Chamber Project at Battelle Memorial Institute. He said a final report covering work and results had been prepared and would be published as soon as approved by the appropriate committees. He also reported on work by the Seamless Systems Manufacturers Steering Committee toward the joint development of a proposed Federal Specification covering seamless flooring systems.

Mr. Scofield's report also covered the initiation of a subcommittee of ASTM Committee D-1 to discuss development of "Consumer-Type" specifications. A copy of his report is attached to the minutes.

Mr. Robert A. Roland, NPVLA Executive Vice President, talked to the Committee on several subjects. He discussed the growing emphasis on "Consumerism" and the desire of the Federal Government to aid consumers in the selection and purchase of all types of products. Mr. Roland praised the Committee on the development of Scientific Circular #796, "The Selection of Paint". He said it was one of the best publications developed by NPVLA. He urged the Committee to continue its work along this line and expressed hope that Circular #796 could be expanded in the near future.

Mr. Roland brought the Committee up to date on the activities of the captive insurance company, Verlan, Ltd. He explained that the company was in operation and had opened offices in Washington, D.C. At present the insurance is open only to "A" Members of NPVLA. It is hoped that "B" Members may be serviced at some future date.

Mr. Roland discussed the activities of various NPVLA committees. He expressed a desire that all committees deal more strongly with the problems of the paint industry in their future work.

The Committee adjourned for the day and went to the NPVLA building where a reception was held for all Committee Members and guests. Following the reception a "Dutch-treat" dinner was enjoyed by all at Blackie's House of Beef in Washington.

Chairman Bohnert re-convened the meeting at 9:00 a.m., April 8.

Dr. Robert Laurrell, substituting for Dr. Graham, Advisor on Automotive Finishes. Bob Laurrell reported that the first half of 1970 should be about like 1967 in number of cars built. Negotiations with labor unions will probably affect the total number of cars built in 1970. He indicated that foreign auto imports are up to about 12% of the American auto market. Japanese autos have shown considerable increase in this country -- especially on the West Coast.

Dr. Laurell said that 700,000,000 lbs., of plastics are used in the auto industry today and it is predicted that 3 1/2 billion lbs., of plastics will be used by 1980. The use of polyester plastic in auto bodies and ABS plastic in interior parts is increasing rapidly. Electron curing of coatings on plastics is beginning and should become an important operation in the auto painting operation.

Mr. Saul Spindel, substituting for Mr. S.B. Levinson, Advisor on Liaison with other Associations, reported on the work done with the International Copper Research Assoc. Mr. Spindel discussed some interesting laboratory research projects sponsored by the International Copper Research Association to develop a suitable exterior clear coating for copper and copper-bearing metals. A copy of his complete report is attached to the minutes.

Mr. Dan Farstad, Advisor on Research Management, was unable to attend the meeting. No report on Research Management is available this time.

Mr. Richard Johnson, Director of the Paint Industry Education Bureau, reported on Technical Education in the absence of Mr. John Oates, Advisor on this subject. Mr. Johnson discussed the various programs offered by PIEB. He urged member companies to hire students who graduate from the technical schools sponsored by the Bureau. Details concerning courses being offered may be obtained by writing directly to Mr. Johnson at NPVLA.

Mr. Arthur Bohnert, Chairman, reported on the activities of the Fire Retardant Paints Committee. Mr. Bohnert reported that the next meeting of the Fire Retardant Paints Committee will be held on May 28, at NPVLA Headquarters. The new chairman of this committee is Mr. Joseph Wolf. The Committee is attempting to standardize on a two-foot tunnel now used as a laboratory instrument for flame-spread tests by several companies. This committee is working with ASTM to establish a standard test method for using the two-foot tunnel. Copies of the minutes of the Fire Retardant Paints Committee are available to committee members by writing to Roy Brown.

Mr. Robert Pickering, Advisor on Chemical Coatings, discussed paint guarantees. He stated that he is not taking the position that paint guarantees are necessarily bad. He said that he sees nothing wrong with them whatsoever when they are done carefully and when they are done on a technically sound basis. A copy of Mr. Pickering's report is attached to the minutes.

Mr. Roy Brown, Technical Director, reported to the committee on work being done by NPVLA on the lead paint poisoning problem. Mr. Brown stated that NPVLA is arranging, in cooperation with the Atomic Energy Commission, to have several demonstrations of instruments which were developed to detect lead in old painted walls. Mr. Brown pointed out that the Community Services Steering Committee has appointed a subcommittee to study this problem, chaired by Dr. Emil Christofano of Hercules, Inc.

Mr. Brown announced that NPVLA Trade Sales Division in cooperation with the Construction Specifications Institute will hold an Architectural Coatings Forum in Atlanta, Ga., on April 17 and 18. Several technical executives from the paint industry will participate in the program as speakers. All companies represented at the meeting were invited to send representatives to the Forum.

With the subject of "consumerism" receiving so much attention in the news media, Mr. Brown spoke of the excellent acceptance accorded the Scientific Circular #796, "The Selection of Paint". He urged the Scientific Committee to continue its work in expanding this type of information to cover maintenance paints. Architects, maintenance engineers, paint specifiers and even the do-it-yourself painter have found "The Selection of Paint" to be a very helpful document.

Mr. Brown discussed with the Committee the question of the desirability and need for a technical workshop at NPVLA Headquarters. A small laboratory was established about two years ago but has never been fully activated due to lack of funds for chemical personnel and equipment. The Committee was asked to discuss the need for a technical workshop and to make whatever recommendation they desired on this matter. After considerable discussion, the following motion was made by Dan Whitney and seconded by John Cleaveland:

"A technical workshop (Laboratory) be established and operated at NPVLA Headquarters. This laboratory should be operated under the direction of Roy Brown and the selection of projects to be undertaken should be controlled by the Scientific Committee."

The motion was approved by the Scientific Committee and this recommendation will be passed on to the Executive Committee for their consideration.

Mr. Brown discussed the possibility of having a forum sponsored by the Scientific Committee for presentation at the Annual Meeting. The Committee is in favor of presenting a forum and the chairman will appoint a subcommittee to select a subject and plan the forum. Roy Brown will work with the subcommittee to develop this project.

Mr. Daniel S. Ring, General Counsel, spoke to the Committee on the activities of NPVLA in the field of hazardous substances. He pointed out that hazardous substances laws have always been intended to form the basis of regulations that protect the health and safety of those who use or may come in contact with substances that are hazardous. So, it was originally a health matter. Mr. Ring stated that this was almost exclusively what NPVLA worried about during the early stages of the hazardous substances law of the Federal Government from 1960 on when it became part of the Governmental Statutes and from 1962 on when the Regulations of the Food and Drug Administration went into effect. He said that we (NPVLA) felt that it was our duty to tell our members how warnings could be given concerning hazardous substances in paints and we promulgated the 1962 recommended labels, primarily for use in the trade sales area, but with the connotation that they could be very valuable as far as chemical coatings and industrial products were concerned.

We went along for two years and by 1964, we found that there were certain industrial products that should have outlines as far as safety was concerned such as those which had amines, peroxides, and various other substances which acted as catalysts and which could be a hazard. Now we began to move away from trade sales and took into account the danger that might occur to a customer's employee who used these substances.

Mr. Ring stated that he has watched the trend of cases in the last four years and he has found that now product liability warnings are the important things. Mr. Ring stated that the feeling is growing throughout the country that the manufacturer of a product that might be dangerous to anyone using it becomes practically the insurer of the product. The theory now is that there is a strict liability placed on the manufacturer to acquaint the one who uses the product with all of the details needed to insure safety.

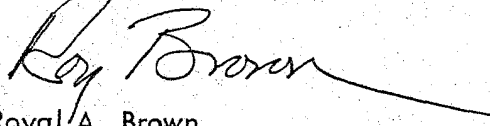
The guest speaker was next introduced. Capt. Ellis Gordon who is secretary of the American Wood Preservers Institute in Washington, D.C., gave a very interesting talk on "The Pressure Treatment of Wood". Capt. Gordon's talk was illustrated with colored slides and described the many new developments in wood pressure treatments.

Wood is pressure treated for durability and water resistance for fire retardancy and to prevent decay and attack by termites. He showed slides of houses being constructed with treated wood foundations imbedded in the earth. The proper treatment can enable wood to give 50 years or more service even when in contact with the earth. Capt. Gordon's talk was well received and the question period required about thirty minutes as great interest was shown in this subject. Capt. Gordon agreed to send copies of AWPA Standard P 10-68 for Fire Retardant Formulations to Roy Brown for inclusion in the minutes. A copy is attached to the minutes.

Chairman Bohnert discussed a possible time and place for the next meeting of the Committee. After considerable discussion, it was decided that Roy Brown should send out calendars and let committee members indicate their preference for the next meeting date. The meeting will be held in Washington, D.C.

The meeting was adjourned about 3:00 p.m.

Respectfully submitted,

A handwritten signature in cursive script that reads "Roy Brown". The signature is written in dark ink and extends to the right with a long, sweeping underline.

Royal A. Brown
Technical Director

RAB/fmh
Attachments

REPORTS OF ADVISORS

TEST METHODS - R. W. Lettieri, Advisor (Reported by R.H. Higgons)

At this meeting of the Scientific Committee, we wish to report briefly on the activities of Committee Z66.1 of the American National Standards Institute. In case some of you are not familiar with the recent changes in name of this organization, let me say that after being known as the American Standards Association (ASA) for many years; the name was changed in 1966 to the United States of America Standards Institute. I don't know why they changed the name, since the ASA designation was known throughout the world and had been incorporated into the legislation of many jurisdictions.

I know the change caused some confusion and embarrassment in the State of Connecticut in 1967 as a result of passage of a lead paint law referring to the Z66.1 Standard. The first draft of the bill used the term ASA even though this was then out of date. One of the opponents of the bill, a state senator, who also happens to be a paint dealer, had the reference changed to USA Standard before the bill was passed, having been so advised by NPVLA. He suddenly found himself in hot water while the bill was awaiting signature by the governor, when one of the Connecticut health officials started screaming that they had been tricked -- there was no such organization as United States of America Standards Institute. It took some time to get the matter straightened out.

To further compound the confusion, adoption of the USA Standards Institute name was subsequently criticized by some people, including, I believe, Ralph Nader, because it tended to imply that the Institute was a government agency. For this reason, the name was changed again in 1969 to "American National Standards Institute", and the designation "ANSI" adopted for the various standards. It's possible that "ANSI" will not be used for some things - think of the ASA ratings for photographic film-speed, for example.

To get back to the subject of our report: last fall I accepted the chairmanship of Committee Z66.1. A new chairman for the main Committee, Z66, had also been appointed; he is Dr. Jay Arena, a pediatrician from Duke University, who is also President of the American Association of Poison Control Centers. The responsibilities of Committee Z66 are to develop specifications, tests and procedures to minimize home hazards to children which might result in physical injury or poisoning. This can cover all kinds of hazards, such as home washing machines, flammable fabrics, medicine cabinets, product containers and safety closures.

The first meeting of the reconstituted Committee Z66 was held last December after a hiatus of perhaps 5 years. The meeting was attended by some 13 individuals representing almost as many diverse organizations, such as the Toy Manufacturers of America; National Bureau of Standards; Lead Industries Association; Good Housekeeping Institute; FDA Office of Product Safety. Since Z66.1 has been the only active sub-committee, the main topic of discussion was the 1964 Standard covering the requirements for coatings such as paints, enamels, lacquers, etc., applied in liquid form and

deemed suitable from a health standpoint to be used to paint childrens' toys or furniture, or interior surfaces in general. As chairman, I moved that the 1964 Standard be reaffirmed without change and this was agreed to by those present at the meeting. The reaffirmation must be confirmed by a vote of the entire membership of Z66, but I expect this will be accomplished.

Since ANSI feels that some revision of the Z66.1 Standard should be made within two years, I suggested that the section of the Standard covering soluble barium in paint films needs some revision or amplification. This section now specifies that "water soluble barium" shall not be in excess of 1% of the total barium in such coatings. This presents several problems, the first being that we do not, as yet, have a test method for the extremely low concentrations of soluble barium which could be encountered. An ASTM subcommittee, chairman of which is Harry Stevenson of Eagle Picker, is attempting to develop a test method using paint samples supplied by Sherwin-Williams, but results of their work will not be reported until the June 1970 ASTM meeting. I understand the method of analysis they are trying involves use of some acid in spite of the fact that the Z66.1 spec refers to "water soluble barium". In my opinion, the wording of the spec is not quite right, as any barium compounds soluble in weak stomach acids can poison you. Barium carbonate, found in most barytes ores, can be cited.

Other changes could undoubtedly be safely made in the Z66.1 specification, such as increasing the permissible amount of lead, when present in the paint film in the form of lead compounds which have lower solubility than white lead. I'm referring to lead chromate or lead molybdate, for example. A change of this type could undoubtedly be justified on a technical or toxicological basis but I think the present political and consumer climate is such that it would be unwise to suggest any liberalization of lead levels. With all the publicity being given to the lead poisoning problem today, we will be lucky if we can maintain the present 1% level.

About 30 "lead paint" bills have been introduced in Congress this year, with many more in various state legislatures. Fortunately, many of these bills are for the purpose of studying the problem and supplying funds for implementation of corrective measures. Some, of course, cover the well-beaten path of calling for label warnings or prohibiting use of lead paints on surfaces accessible to children. One or two of these extend the prohibitions to specific exterior surfaces, such as porches. We can't very well object to the latter type legislation; from a public relations standpoint, it would not look well for us to oppose a bill aimed at preventing the poisoning of small children, even if the measures proposed would be largely ineffective.

In concluding the discussion on Subcommittee Z66.1, let me say that I am trying to obtain some new members. Charles Martens of Sherwin-Williams, an old member, will continue his participation and Truman Kirkpatrick of the same concern has agreed to serve; also Dal Sparre of duPont, Jim Roumas of the Lead Industries Association, and Myron Averill of Hercules (Imperial Color). If any of you men would be interested in

joining the Subcommittee, or know of some knowledgeable individual who could serve, I would be glad to discuss the matter with you sometime during this meeting.

TOXICOLOGY - Floyd Green, Advisor

Carbon Tetrachloride

As an item of general interest, carbon tetrachloride is now a "banned hazardous substance". This includes mixtures containing it (including that used in fire extinguishers).

A notice of proposed rule making in this matter was published in the Federal Register of February 9, 1968. An order implementing the proposal was published May 24, 1968, effective in 60 days.

Objections to the order were filed by CSMA and a public hearing was requested. The hearings have been held and as of March 3, 1970, the stay of effective date of § 191.9 a,2 was ended.

American National Standards Institute

Just about the time we had all become accustomed to the use of "USASI" instead of "ASA", we have another change to "ANSI". In 1966, the American Standards Assoc., (ASA) changed its name to United States of America Standards Institute (USASI). In order to avoid any possibility of confusing this organization with a government agency, the name was again changed, effective October 6, 1969, to American National Standards Institute, Inc. (ANSI).

The specification to minimize hazards to children from residual surface coatings is now ANSI Z66.1 - 1964.

St. Louis City Board of Aldermen Lead Poisoning Bill

Board Bill #328, introduced by Alderman Stolar is referred to as "a lead poisoning ordinance". It prohibits the manufacture and sale of articles with "lead based substances", including any toys or furniture. It defines "lead based substances" as "any substance or material which contains 1% or more of metallic lead based upon total non-volatile content as found on exposed surfaces of objects".

We have had several inquiries on this bill, but so far can see no cause for alarm providing one follows the Z66.1 specification. I would be interested in knowing if anyone has run into difficulty with this ordinance.

Milwaukee Lead Paint Ordinance

Word came to me in the last few days of a city ordinance in Milwaukee which limits the use of lead based paints on the exterior of buildings to a level 4 ft. above the ground. I have not been able to verify this at the time of this writing. It may be in order for our staff to investigate this further.

Ad Hoc Committee on Lead Bearing Colored Pigments

This committee is conducting a literature survey on pertinent studies of toxicity of lead compounds and extractability of lead from various systems.

LABELING - W.G. Ringle, Advisor

Since the Scientific Committee met in October, 1969, the following significant labeling actions have transpired:

- (1) NPVLA Legal Counsel commented upon and recommended against the proposed MIL-STD-1341 (SA) "Symbols for Packages and Containers for Hazardous Industrial Chemicals and Materials" on the basis that packages containing paint products are already adequately labeled.
- (2) NPVLA Opposed the Food & Drug Administration proposal to change the front panel instructions from "See cautions elsewhere on label" to: "Read ----- panel for precautions and emergency instructions". The change is insignificant and would affect 25 of the 31 standard label cautions.
- (3) NPVLA Legal Counsel petitioned the 55th National Conference on Weights and Measures to exempt paints from the dual quantity declaration and from the need to show the quantity in the bottom 30 percent of the principal display panel.

It appears that many paint companies have already changed their labeling because of the uncertain position taken by the FTC in 1969. NPVLA Legal Bulletin No. 70, August 15, 1969, announced the fact that paints are not within the scope of the Fair Packaging and Labeling Act.

- (4) The Labeling Committee which met on February 10, 1970, reviewed:

a - The impending legislation in many cities and states on the hazard of deteriorating paint films having a high lead content. St. Louis, Minneapolis, Cleveland and New York are among the cities concerned about potential lead poisoning from peeling or chalking paint. Additional areas are considering label cautions for lead-containing paints.

b - Most states no longer require economic poison registration of paints containing a small percentage of mildewcide to control mildew growth on the paint film. Minnesota required registration in 1969 and may persist in 1970. NPVLA action might be helpful if this is so.

RAW MATERIALS INDEX SUBCOMMITTEE - A. C. Elm, Chairman

In line with the policy established a couple of years ago, several Index sections were reviewed and reissued during the past six months. They include the Solvent Section mailed out in January, the Resin Section mailed out in February and the Chemical Specialty and Drying Oils Sections issued in March.

The Pigment Section is being completely revised, and this subject occupied the meeting of April 7, of the Raw Materials Index Advisors. In preparation for eventual computerization, the column headings of this Section had been revised in cooperation between Frank Felicione and the Pigment Advisors. A set of these headings had been sent out to the various suppliers with the request that the information on their pigments be furnished in the form specified by the column headings. There were some requests from suppliers for clarification. A detailed review of the column headings and the overall format and arrangement revealed the need for a number of editorial changes which were made. It was also decided that a letter explaining what is desired might go a long way toward avoiding misunderstandings and further delay in issuing the proposed Pigment Section revision. This letter was drafted and will be issued over the Technical Director's signature. It is hoped to issue the revised Pigment Section in June.

REPORT OF VICE PRESIDENT, TECHNICAL AFFAIRS - Francis Scofield

The three-year project with the Smog Chamber, at Battelle, has been completed and a report covering this work has been prepared. It will be published as soon as it has received the approval of the appropriate committees. In general, we may say that we did not accomplish all we set out to do, but still we made good progress and developed a lot of information that will be helpful in the future. A summary of the results will be presented at the Annual Meeting next year.

The timing of the development of this information is fortunate, since a number of documents covering "Criteria" and "Control Technologies" for oxidants, hydrocarbons, and other materials have just been issued by the Department of Health, Education, and Welfare. These are described in this week's issue of "Coatings". The issuance of these documents sets in motion a time-table which calls for various jurisdictions to issue standards for various products, including oxidants, within the next nine months. We expect to testify concerning as many of these as is possible, using, where germane, our Smog Chamber data. However, it is necessary that we know about them, and would appreciate having any scheduled hearings in this area brought to our attention.

In this connection, we will point out that unless a given jurisdiction has a significant level of "Oxidants", there is no need for any control of organic solvents. The problem is complicated by the fact that the present methods for the analysis of oxidants, particularly on a continuous basis, are less than satisfactory. The general consensus seems to be that high results are very likely. This poses the threat of the adoption of solvent control regulations based on oxidant readings which are erroneously high. The Community Services Steering Committee is studying possible projects which may alleviate this problem.

Work with Mr. George Erickson, of HUD, on the development of a Federal Specification for a Seamless Floor is progressing, but slowly, and it is to be hoped that a semi-final draft will be ready soon.

The ASTM Standing Committee on Consumer Affairs has gotten active recently, and has requested suggestions from Committee D-1 as to the development of "Consumer-type" specifications. This request is backed up by the implied threat that, if D-1 does not do it, the Committee on Consumer Affairs will do it themselves. Committee D-1 is appointing a committee to deal with the problem. It should be emphasized that what is wanted is not a Procurement Document, like a Federal Specification, but a technical description of the paint which will enable the unsophisticated consumer to determine which of two paints is the better buy for his particular requirements. Whether they will get anything useful or not, remains to be seen.

LIAISON WITH OTHER ASSOCIATIONS - S. B. Levinson, Advisor (Reported by Mr. Saul Spindel)

Work with the International Copper Research Association

Copper and its alloys, e.g., brass, not unlike many other metallic compounds, are prone to discolor and pit when exposed to the elements and therefore must be protected. However, unlike other metals, the corrosion of copper metals is not sacrificial, only unsightly. But, because they are used for esthetic appeal, these metals must be coated with a clear, which, as we all know, is an extremely difficult product to formulate to provide durable protection.

The International Copper Research Association, more commonly known as INCRA, sponsored a number of laboratory research projects to develop a coating which:

1. can be applied on-site
2. is tough and resistant to impact
3. will maintain the original metal appearance for at least two years.
4. can be readily removed when refurbishing is required.

A broad spectrum of coating resins were evaluated by the Chase Brass Company to meet these requirements. They included alkyds, acrylics, vinyls, silicones and cellulose butyrates - used both alone and modified. The results of this work showed quite conclusively that an acrylic lacquer formulation, based upon Acryloid B-44, provided the optimum protection as well as meeting the other requirements.

As a result, this clear coating, called INCRALAC, was announced and recommended by INCRA for general use on architectural copper.

It was determined, during the course of this development work, that copper metals even when topcoated with a clear finish tend to discolor and take on an unsightly appearance when exposed. British Non-Ferrous Metals, through another research grant sponsored by INCRA, determined that benzotriazole could effectively prevent this discoloration. It was further determined, that a level of about 1 1/2 percent of the vehicle solids was an adequate concentration to use. The effectiveness of benzotriazole can be dramatically demonstrated by these panels which have been exposed in the salt fog cabinet. The only difference between them is benzotriazole. The panels exhibiting no corrosion or discoloration were coated with INCRALAC plus benzotriazole, whereas their counterparts don't contain benzotriazole. Additionally, the benzotriazole containing coatings were exposed for 1000 hours while the coatings made without benzotriazole were exposed for only 300 hours.

After the initial development work on INCRALAC was completed, the formulation received widespread use by metal maintenance organizations, and, as such, was applied to a broad variety of copper metal surfaces. As the use of the coating increased, INCRA began to receive some complaints about the weatherability of the coating. Inspection of the complaints revealed that in virtually every case the film in question exhibited severe orange peel and the type of failure was invariably pitting in the valley of the "orange peel". Further investigation also revealed that these films were relatively thin, and much less than the 1.0 mil dry film thickness recommended. Upon questioning, the applicators admitted to deliberately applying thin films in order to avoid an even more acute orange peel condition, which became particularly noticeable when the films were thicker.

Therefore, INCRA engaged the David Litter Laboratories to develop a more foolproof formulation of INCRALAC, which would be both durable and relatively easy to apply. This project included an evaluation of a broad variety of solvent blends and, in addition, the evaluation of the incorporation of pyrogenic grade of silica, Cab-O-Sil M-5.

During this investigation, we found to our surprise that copper coatings prepared with solvent blends containing high concentrations of esters or glycol ethers accelerated discoloration of the metal when exposed to humid environments.

This can be demonstrated most vividly by comparing the appearance of these panels which have been exposed in a Cleveland Condensing Humidity Cabinet for 500 hours. Note the relatively good appearance of the metal on the panel coated with the toluol, blend whereas the panel coated with the butyl acetate/ethyl acetate blend has darkened significantly.

The orange peel problem was readily solved by the use of a xylol-toluol blend. In addition, we were able to develop a more foolproof thicker coating by the use of a gelling agent - Cab-O-Sil.

As a result of this work, a coating was developed based upon Acryloid B-44 and a solvent blend consisting of 60% xylol, 40% toluol plus about 2% of Cab-O-Sil on the vehicle solids that enabled the application of smooth, relatively orange peel free, sag free films that were approximately 30% thicker in wet film thickness than the original INCRALAC formulation.

This formulation, called INCRALAC A, is currently being recommended by INCRA for use on architectural copper and brass. To date, the results of the application of this coating have been quite successful.

Some of the more spectacular applications of these INCRALAC coatings include the huge Imperial Palace in Japan and the roof of Mexico City's Olympic Sports Arena. The palace, coated some years ago still looks good and is almost as large in area as the roof of the arena, which is being coated right now. The arena roof is considered to be the largest copper roof in the world. It is 5 1/4 acres in size, consisting of over 225,000 square feet of copper. And that, gentlemen, is a lot of copper to coat with a clear finish that must protect against the rays of the sun and the other ravages of our weather.

CHEMICAL COATINGS - J. R. Pickering, Advisor

Gentlemen, I listened to the remarks that Bob Roland made yesterday afternoon, and as a result I have decided to change my mind about the subject I want to talk to you about. Somewhere in his remarks Bob made the statement that we ought to be using these meetings as an opportunity to discuss those things which are bugging us and our companies in our day-to-day business. There is a subject which bugs me and my company, and I am going to accept Bob's invitation and talk to you about it. You have heard me talk about it before, and I suppose you will hear me talk about it again. As a matter of fact, you probably will draw the conclusion that it is one of my favorite subjects. The subject I want to discuss with you is paint guarantees.

At the very outset, let me caution you that guarantees are included among the terms and conditions of sale, just as much as credit terms, discounts and other items that affect the contract between the buyer and the seller. We are an Association of competitors and we are restricted from any action that would tend toward standardizing terms and conditions of sale and this, of course, will include guarantees and warranties. I say this now because

what I will talk about will be from the view point of analyzing a general condition in the industry and not even remotely suggesting that we come to some definite agreement about some standardized warranties. Warranties must always be left to the good independent and individual judgment of each member who will chart his own course in the market place without consultation with anyone competing with him.

I also want to point out that I am not taking the position that paint guarantees are necessarily bad. In fact, I see nothing wrong with them whatsoever when they are done carefully and when they are done on a technically sound basis. It should be pointed out, of course, that in addition to spelling out your obligations, they also limit your liabilities. There is a considerable difference of opinion in the industry as to whether or not they are good or bad, but regardless of which side of this question you are on, they seem to be a way of life and are going to be with us from now on. I think those of you who are chemical coatings producers cannot afford to ignore the subject, but rather you must be staying abreast of it on a day-to-day basis.

In reviewing the minutes of the last meeting, I note that I mentioned guarantees to you briefly at that time. At that time I had just recently heard that one company was about to offer a 20-year warranty on a silicone intermediate-modified polyester. Since that time I have confirmed that this company has indeed issued such a guarantee. As I reported to you at that time, the significant thing about this is that this is the first time a length of time such as 20 years has been offered in connection with any product, with the exception of fluorocarbons and then specifically probably only for polyvinylidene fluoride. The specific guarantee this company has written is for a two-coat siliconized polyester and covers 25 years from the date of installation of the precoated metal in regard to failure by blistering, peeling, chipping, checking, cracking, etc., and covers 20 years from the date of installation in regard to permissible chalking and color change. The limit on chalking is an 8 rating by ASTM D-659-44; and the limit on color change is 5 NBS units following removal of chalk and surface contaminants, dirt, etc. While an ASTM chalk rating of 8 and a color change of 5 NBS units are significant differences, nevertheless, this represents excellent performance over a period of 20 years. The issuing of this guarantee by this company, and I have little doubt that other companies will follow suit, demonstrates what is happening to guarantees in terms of leapfrogging extensions of terms which are being granted.

In addition to that, I thought you might be interested in a memo which has recently crossed my desk from one of our salesmen. This particular salesman is heavily committed to coil coatings and has taken the time to type one and two-thirds pages of notes concerning his opinion as to the sort of guarantees our company, or any other company, is going to have to offer in the area of coil coatings, if they are going to remain competitive. I would emphasize that this does not represent what my company is doing, nor necessarily what my company will do, but rather only the opinion of one salesman who is intimately associated with the coil coating business.

He says that a 5-year warranty is going to be restricted to conventional coatings, that is garden variety thermosetting acrylics, polyesters, alkyd-amines, vinyl solutions, organosols, etc. He says that if siliconized products are involved in 5-year warranties, they will be products with relatively low silicone intermediate content (probably 25 to 30% or less) so that price-wise they will be competitive with the conventional coatings. He reports that the terms of the 5-year guarantees on these conventional coatings will be about what the terms are for the 20-year guarantees we have just talked about. In fact, it would seem that the terms of the guarantees are remaining fairly constant, that is, in the neighborhood of a maximum of #8 ASTM chalk rating and a color change of about 5 NBS units, and that only the length of time varies depending on the product.

He reports that the premium siliconized product, i.e., one which is modified in the neighborhood of 50% with a silicone intermediate, will have to carry warranties of 10 years and up, and in light of the 20-year guarantee we have discussed, probably a 20-year guarantee. Again, the terms will be about #8 chalk rating and 5 NBS units of color change. It is reasonable to assume, since this product is a better one, that it will perform better and can carry a superior guarantee, and that its cost to the coater will be somewhat above the cost of 5-year coatings or the conventional coatings.

One other significant point he makes is that he believes all the warranties from now on will be written to cover surfaces oriented in any direction. By and large, up until now the guarantees have been restricted to vertical surfaces, but he feels that in the future the paint companies will have to be willing to warrant their product for installation on roofs or any other surface. Of course, it is not often that a coating will be placed in the field in a 45° south direction in southern latitudes, but it places an additional burden on formulating these products and on the performance of them if you must meet this accelerated condition whenever the customer decides to use it. I don't need to tell you, of course, that is a far different situation from a north facing vertical wall in Minneapolis.

As I have indicated, the written guarantee in connection with chemical coatings so far is pretty much restricted to the coil coating field. However, I think it is only a matter of time until you chemical coatings producers find your other end use customers saying to you that "what is good enough for the coil coaters is good enough for me, too; where is my written guarantee?" Obviously, the other end use customers will not necessarily be interested in guarantees written in terms of chalking resistance and color fade, but rather they will want guarantees written in terms of chemical resistance, salt spray resistance, abrasion resistance, or whatever properties are important to their product. I think you are all going to be amazed 10 years from now at the percentage of chemical coatings which are sold with a written guarantee. I think this will be particularly true of the percentage of chemical coatings which will be sold to large, knowledgeable end users.

Again, I want to emphasize that in no way am I implying that written guarantees which are being offered with coatings, or which will be offered with coatings, are entirely bad. There are many good aspects to them, and certainly when they are well done and when they are based on sound technical positions, they cannot be criticized. I bring them to your attention because I do definitely feel they are becoming a way of life and that all of you, particularly you producers of chemical coatings, ought to be staying abreast of the developments in this area.