

STATE PEST CONTROL REGULATORY OFFICIALS CONFERENCE (SPECROC)

HISTORICAL RECORD

1969

PRESIDENT:

VICE-PRESIDENT:

SECRETARY:

TREASURER:

LOCATION OF ANNUAL MEETING:

New Orleans, LA

DATE:

9/15/69 to 9/16/69

HIGHLIGHTS OF MEETING:

**Minimum standard fumigation procedures (F.R. Du Chanois, Florida)

**Economic Estimate Study - Wood-Destroying Insects (Lonnie Williams, and Richard Smythe.

**The outlook for pesticides with special reference to structural pest control (Dr. Ralph Heal, NPCA)

** State Reports

** Field trip to Wood Products Insect Laboratory, Gulfport, MS.

RESOLUTIONS:

NONE IN HISTORICAL RECORD

MISC: **Historical records contain the minutes of the meeting. W.A. Ruffin (Alabama) and Richard Carlton (Louisiana) presided over the meeting.

**Paper on Minimum Standard Fumigation Procedures.

**States participating in the meeting were Alabama, Arkansas, California, Florida, Georgia, Louisiana, Mississippi, Missouri, New Jersey, Oklahoma, and Tennessee. Roster of the State Pest Control Regulatory Officials Conference (SPECROC)

The Tenth Annual State Pest Control Regulatory Officials' Conference met in New Orleans, Louisiana on September 15 and 16, 1969. The meeting site was changed from previously intended Mobile, Alabama to New Orleans, Louisiana due to unforeseen circumstances. The meeting was presided over by W. A. Ruffin, Alabama, and Richard Carlton, Louisiana--of both our intended host and host states.

The states participating were Alabama, Arkansas, California, Florida, Georgia, Louisiana, Mississippi, Missouri, New Jersey, Oklahoma and Tennessee. Attendance equalled the good turnout of 1968.

Program of the
Tenth Annual Meeting
State Pest Control Regulatory Officials
September 15, 16, 1969

Monday Morning, September 15

Meeting convened at 8:30 A.M. Welcome by Chairman W. A. Ruffin (AL) followed by co-chairman Richard Carlton (LA)

Introduction of Special Guests and Inspectors by Mr. Carlton.

Minimum Standard Fumigation Procedures - F. R. Du Chanois (Florida).

Reports from the States - Alabama - Mr. Ruffin; Arkansas - Mr. Gerald King; California - Mr. Macon Bonner; Florida - Mr. F. R. Du Chanois; Georgia - Mr. Carl Scott, Jr.

Reports from the other states were deferred at this point to allow for the presentation by the Forest Service Wood Products Insect Laboratory.

Economic Estimate Study - Wood-Destroying Insects - Lonnie H. Williams and Richard V. Smythe, Wood Products Insect Laboratory.

The Outlook for Pesticides with Special Reference to Structural Pest Control - Dr. Ralph E. Heal, Executive Secretary, NPCA.

Monday Afternoon, 15 September

Reports from the States (cont'd) - Kansas - Mr. H. Dean Garwood furnished a report by mail; Louisiana - Mr. Carlton; Mississippi - Mr. Robert McCarty; Oklahoma - Mr. H. H. (Buck) Latham; Tennessee - Mr. Clarence E. Turner.

Tuesday, 16 September

Field Trip to Wood Products Insect Laboratory, Gulfport, Mississippi.

Conference adjourned.



PROGRAM

MONDAY

STATE PEST CONTROL REGULATORY OFFICIALS	8:30 A. M.	Register
	9:00 A. M.	Report from States
	NOON	Lunch
TENTH ANNUAL MEETING	1:30 P. M.	Lonnie Williams and R. V. Smyth Wood Products Insect Lab. Dr. Ralph Heal Misc. subjects
	6:00 P. M.	Social Hour and Buffet Orkin Exterminating Company, Inc. Host

SEPTEMBER 15 - 16, 1969

TUESDAY

8:00 A. M.	Leave for Gulfport to visit Forest Insect Lab. A meeting place will be announced. Transportation will be furnished.
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Robert E. Lee Room
Monteleone Hotel
New Orleans



DEPARTMENT of HEALTH and REHABILITATIVE SERVICES

DIVISION OF HEALTH

WILSON T. SOWDER, M.D., M.P.H., DIRECTOR
BOX 210—JACKSONVILLE 32201—TEL. 904 - 354-3961

1 June 1970

MEMORANDUM

TO : State Pest Control Regulatory Officials' Conference Members

FROM : F. R. Du Chanois, Secretary, Florida

SUBJECT: Minutes and Notes of the 10th Annual Conference in New Orleans, Louisiana

The Tenth Annual Pest Control Regulatory Officials' Conference (SPECROC for short) met in New Orleans, Louisiana on 15 and 16 September 1969. The Conference was well attended and richly rewarding in terms of information exchanged and objectives accomplished. The meeting site was changed from previously intended Mobile, Alabama to New Orleans due to unforeseen circumstances. The meeting sessions were presided over jointly by Messrs. W. A. (Jerry) Ruffin, Alabama, and Richard (Dick) Carlton, Louisiana -- of both our intended host and host states. Highlight of the meeting was a field trip to the USDA's Wood Products Insect Laboratory at Gulfport, Mississippi.

This memo covers transmittal of the enclosed Minutes and Notes of the 10th Annual Conference including roster of members attending, as well as copies of the conference program and several handouts furnished at the meeting including "Minimum Standard Fumigation Procedures". Your secretary sends greetings and also apologies for the delay in getting this to you.

Minutes and Notes of the Tenth Annual Meeting

STATE PEST CONTROL REGULATORY OFFICIALS' CONFERENCE

New Orleans, Louisiana

15 and 16 September 1969

The tenth (ninth consecutive) annual meeting of the State Pest Control Regulatory Officials' Conference (SPECROC) met in the picturesque, historic, and fabled Crescent City of the South, New Orleans, on 15 and 16 September 1969. Meeting sessions were held on Monday, the 15th, in the Robert E. Lee Room of the conveniently located-down-town and hospitable Monteleone Hotel, with its charming southern atmosphere and appointments.

Climaxing the conference was an eagerly awaited trip to Gulfport, Mississippi on Tuesday, the 16th, where members were privileged to be guests of the U. S. Dept. of Agriculture's, Forest Service, Wood Products Insect Laboratory. This laboratory, one of the foremost of its kind in the world, conducts research investigations on forest products including destructive and useful insects and other organisms associated with wood and wood products. Mr. H. R. (Johnny) Johnston, Supervising Research Entomologist and Project Leader, and his coworkers were our gracious hosts at the laboratory.

Messrs. W. A. Ruffin and Richard Carlton of the Alabama and Louisiana Departments of Agriculture, respectively, served as co-chairmen. SPECROC compliments and thanks Mr. Ruffin for the fine job of conducting the meeting in an orderly, yet informal mode, and Mr. Carlton for the efficient, enjoyable and worthwhile program and local arrangements.

On Monday evening the members and their wives attending were royally treated to a most pleasant and refreshing hospitality hour by the Orkin Exterminating Company Division of Rollins, Inc. Messrs. Jack Doris, Pete Jones, Jack Edwards and John Wilson represented the company and were hosts par excellence.

The states of Tennessee, Oklahoma, New Jersey (by Dr. Ralph E. Heal, Executive Secretary, National Pest Control Association (NPCA), Missouri, Mississippi, Louisiana, Georgia, Florida, California, Arkansas, and Alabama participated. Attendance equalled the real good turnout of 1968. Total registration on Monday was 17 including non-member guests.

AGENDA

Monday Morning, 15 September

Meeting convened at 8:30 A.M. Welcome by Chairman W. A. Ruffin, (Ala.) followed by co-chairman Richard Carlton, (La.).

Mr. Ruffin recognized Dr. Ralph E. Heal, Executive-Secretary, NPCA, a distinguished invited guest and old friend of SPECROC.

Introduction by Mr. Carlton of special guests and inspectors from the Louisiana Dept. of Agriculture, Messrs. James A. Arceneaux, Mancil J. Smith and Elton G. Thompson.

Introduction of Mr. Virgil Laird, pest control operator and special guest from Lawton, Oklahoma by Mr. H. H. (Buck) Latham, (Okla.)

Reading of the Minutes of 1968 Meeting was dispensed with as these had been distributed by mail.

—MINIMUM STANDARD FUMIGATION PROCEDURES — F. R. Du Chanois, (Fla.).

Mr. Du Chanois reported on the project undertaken by Florida to submit a set of preliminary "Minimum Standard Fumigation Procedures" for consideration by the conference. Copies of the suggested standards were handed out for discussion. A copy is enclosed herewith for the benefit of those states unable to attend.

Mr. Carlton (La.) commented that Louisiana law requires a licensed fumigator to perform agricultural fumigation. Mr. King (Ark.) and Mr. McCarty (Miss.) added that their states also require licensed fumigators for such work. Mr. Du Chanois (Fla.) injected

that only structural fumigation (e.g. tobacco warehouses, packing sheds) in agricultural areas calls for a licensed fumigator under Florida law.

Dr. Heal, NPCA, questioned whether regulatory officials would be able to check on all standards presented, and suggested that they be called "good fumigation practices" or guides rather than standards (to be enforced). Dr. Heal advised that NPCA had prepared "good practices" for specific types of fumigation. Mr. Carlton (La.) asked if Dr. Heal would be willing to take the proposed standards presented back with him to be reviewed by their (NPCA) fumigation committee and staff. Dr. Heal agreed to do this. It was brought out that "minimum standards" should (or would) be checked by inspectors whereas "approved guidelines" should be available as educational material or a detailed check list of good operating procedures. Mr. Bonner (Calif.) commented that his state has a six-man Structural Pest Control Board -- five from the industry and one from the public at large -- and that he could take these (standards) back for possible adoption, with desired modification if necessary, as board policy. He suggested that other states might wish to do likewise.

Mr. Carlton (La.) suggested the conference adopt the proposals as "approved guidelines" which could be furnished to fumigation operators. The conference unanimously accepted the document as "tentative approved fumigation guidelines" to be reconsidered from time to time as may be indicated to meet the needs of the members.

— REPORTS FROM THE STATES

Alabama (Mr. Ruffin): Their law, amended 1 Oct. 1969, provides for sub-offices, branch-offices (with branch supervisor) and main offices (with supervisor). The sub-office has two employees (supervisor and an experienced treater) and requires a \$10.00 license. The branch-office employs three or more persons and certified operator-supervisor; license fee is \$25.00. The home or main office requires certified operator-supervisor and a \$50.00 license. A less difficult exam is given the branch-office supervisor than to the home office supervisor. Auburn University prepares exams.

Alabama requires contracts and reporting of termite jobs without fees. Mr. Ruffin handed out copies of the number of recorded termite jobs performed in Alabama from Jan. 1949 through Dec. 1958 and from Jun. 1967 through May 1969. A copy of the handout is enclosed. There is a 10 per cent (\$5) penalty for delinquent license renewals after 31 Oct. (licensing is on a 1 Oct. to 30 Sept. fiscal year basis). They have one full-time termite inspector who answers complaints and spot checks termite jobs for compliance with minimum standards.

Arkansas (Mr. Gerald King): The state checks about one-third of reported termite jobs for compliance with minimum standards, and has four full-time inspectors. There is a \$2.00 reporting fee for each job (\$4.00 if delinquent over 30 days). The law requires a minimum one year contract. Going prices for termite jobs average about \$35.00 for pretreating (\$25.00 for slab construction and \$35.00 - \$40.00 for crawl space construction) and \$125 - \$140 for existing structures.

California (Mr. Macon Bonner): Their law provides for principal offices and branch-offices and for operator's- and field representative's licenses. The latter must be an employee of a licensed operator. When license renewals become delinquent, there is a reinstatement period from 1 July to 30 September during which a 100 per cent delinquent penalty fee is assessed. There were 776 principal- and 590 branch-offices for the past (or a recent) year. Of 32 violations investigated by deputy registrars 18 were turned over to the

Division of Investigation. Hearing proceedings resulted in 9 licenses being revoked and 28 suspended. The Office of Administrative Procedures furnishes hearing officers and reporters and Mr. Bonner's department is represented by the Attorney General's office in cases involving disciplinary hearings.

California law requires a pest control firm to post a \$2,000 licensee's penalty bond.

Exams formerly given quarterly are now given monthly because of the difficulty operators are experiencing in finding good, qualified employees. Their exams produce about 50-60 per cent failures. An effort is made to maintain a 50-50 passing to failing ratio. The operator's exam now includes business procedures test questions covering principles of business.

Mr. Bonner advised that California operators must contend with subterranean, drywood and dampwood termites, and that the Formosan termite had been introduced into the San Diego area by shipping. When inspections reveal evidence of moisture, infestation or infection (fungus) a recommendation must be made for correction.

Florida (Mr. F. R. Du Chanois): SPECROC was briefed on recent legislative changes in Florida involving transfer of all functions of the former five-member all-industry Pest Control Commission to the State Division of Health effective 1 July 1969, at which time the Commission was abolished under the Governmental Reorganization Act of 1969. The Pest Control Act and rules and regulations are now administered entirely by the Dept. of Health and Rehabilitative Services' Division of Health. This now includes examining, certification and disciplinary hearings. The Bureau of Entomology of that division carries out these duties. There were no other changes in the law or regulations.

Georgia (Mr. Carl Scott, Jr.): There were two changes in their regulations, one involving moral turpitude as grounds for revocation(?), and the other defines normal commuting distance (of certified operator) to no more than 100 miles.

Georgia allows main office and sub-office (one man only). It requires certified operator to actively participate in the licensed business. They require reporting without fees of wood-destroying organism jobs which are spot checked routinely for compliance with minimum standards by four full-time inspectors. Inspections are also made on complaint/request of property owner. They inspect about 6 to 7 per cent of reported jobs, and check proportionately more jobs done by new companies for which they have no records.

Their program of taking subterranean termite pretreatment site soil samples has continued. Where samples show less than 100 ppm on analysis the operator is asked to return and completely retreat off-grade (crawl space) construction jobs. This has discouraged substandard or so-called "\$15.00 pretreat jobs". Mr. Scott submitted that a company has to make at least two trips and should make three to perform pretreatment properly.

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Reports from the other states were deferred at this point to allow for the presentation by the Forest Service Wood Products Insect Laboratory.

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Introduction of Mr. H. R. Johnston, Project Leader, Dr. Richard V. Smythe and Mr. Lonnie H. Williams, Research Entomologists, USDA, Forest Service, Wood Products Insect Laboratory, Gulfport, Mississippi by Chairman Ruffin.

— ECONOMIC ESTIMATE STUDY - WOOD-DESTROYING INSECTS - Lonnie H. Williams and Richard V. Smythe, Wood Products Insect Laboratory.

This presentation was prefaced by a few well-chosen remarks from Mr. Johnny Johnston.

Dr. Smythe introduced the subject of their presentation by asking: How much damage is being caused (by wood-destroying insects and fungi)? What is a reasonable figure on the economic impact of damage from wood-destroying organisms in the Southeastern states. There have been many "guestimates", but accurate figures on which to base an answer to many important questions are not available. Therefore, the laboratory has undertaken a project to hopefully find the answer through a standard, nationwide system for collecting and disseminating information on economic damage caused by wood-destroying organisms. Such a project is especially important to the Southeastern and seaboard states. Many states have relatively standard or uniform structural pest control laws, and it would not be difficult to adopt a relatively "Standard Structural Pest Control Report" (sample copy handed out and enclosed with this report). A sample "Data Listing for 80 Col. Punched Card" form was also furnished.

Dr. Smythe handed out a copy of "Economic Estimate Study Objectives" (copy enclosed herewith) listing specific information being requested from the cooperating states of Arkansas, Georgia, Mississippi and Tennessee. He explained that this information would be supplemented with latest available Census Housing Data from the other S. E. States and the validity of data tested by actual house-to-house surveys in Arkansas, Georgia and Mississippi.

In summarizing the conference was told that the \$250 million figure often quoted for such damage was a rough, rough estimate. It was emphasized that we need a better system of reporting economic damage caused by wood-destroying organisms so that reliable data is available. Comments from the members were invited.

Mr. Bonner (Calif.) commented that analysis of data covering a six-month period in 1965 showed an economic loss of \$14,453,048 from wood-destroying organisms in their state. The average cost was \$176.02 for the 82,110 properties included in the study. Mr. Du Chanois (Fla.) said that his state might be in a position to furnish data on losses from drywood termites which constitute a serious problem there. Although reports are not required by law, this might be accomplished through cooperative efforts with the industry.

The members agreed unanimously that the project was worthwhile, in the best interest of all concerned, and that individual states should cooperate wherever possible in making it a success.

— THE OUTLOOK FOR PESTICIDES WITH SPECIAL REFERENCE TO STRUCTURAL PEST CONTROL

Dr. Ralph E. Heal, Executive Secretary, NPCA

Dr. Heal reviewed the present status and prospects for pesticides used by pest control operators in light of the current emotionally-charged, and sometimes politically-oriented anti-pesticide atmosphere, and outlined the policy and efforts of the NPCA.

Members were told that the definitions of "persistent pesticides" (as often used in the press, in legislative bills, by pseudo-conservationists, etc.) vary and are often very vague and ill-defined. There are varied reasons for the attack on "persistent pesticides". The problem is not what we know but what we don't know, according to Dr. Heal. There is

so much fragmentary information that we don't know what it really means. Pesticides become rather broadly distributed in the environment and this has led some well-intentioned people to wonder what it means.

The need for DDT in the commercial pest control industry, in the absence of a suitable substitute, is for use as a tracking powder for mouse control and for use in bat control. During recent hearings in Michigan the Michigan Dept. of Public Health recommended its use for louse control. It was understood that the hearing committee accepted its (DDT) use to control ectoparasites of public health importance as well as mice and bats by pest control operators. Its use for mouse and bat control was also apparently granted in Kentucky, New Jersey, Pennsylvania and Wisconsin. (Secy's note: Since our meeting, Florida has cleared DDT for structural use in accordance with federal registration by licensed pest control operators, in declared emergencies by public health and agricultural authorities, and on forest and agricultural crops where no safe and effective alternative control method is available.)

Dr. Heal opined that when the challenge to "persistent pesticides" becomes broader, they have good, sound grounds for keeping organochlorine compounds for termite control. He believed they (NPCA) would have to be very constructive, very objective and follow the very best scientific advice available to the industry. The conference was advised there were bills pending in both houses of Congress which would ban "persistent pesticides". The NPCA intends to get the story and facts out to the public at large through its membership. A press release to 600 newspapers throughout the U. S. was planned at the time. The Association also has a public relations kit for use in answering the challenge and attack on pesticides.

Commenting further on currently registered subterranean termite control materials, he stated there isn't any practical, reasonable, economic, alternative pesticide available at this time for control of subterranean termites.

During his presentation, which was well received by the members and which evoked much interesting discussion, Dr. Heal handed out copies of the following NPCA releases:

- (1) Pesticide Usage in Structural Pest Control (presented before Assoc. of American Pesticide Control Officials by Ralph E. Heal, Aug. 10, 1966)
- (2) Termite Treatments in Soil Show Little Movement. NPCA Tech. Release 16-68 (Aug. 13, 1968)
- (3) The Significance of DDT in Household and Structural Pest Control - 1969. NPCA Tech. Release 6-69 (Feb. 21, 1969)
- (4) More on "Bans" on Persistent Pesticides. NPCA Service Letter 1230 (Jul. 15, 1969)
- (5) The Pesticide Question and the Structural Pest Control Industry. NPCA Service Letter 1231 (Aug. 12, 1969)
- (6) Pesticides and Termites. NPCA News Release (Sept. 9, 1969)

On behalf of all SPECROS members the secretary expressed deep appreciation to Dr. Heal for his presentation and participation in the 1969 conference by correspondence of 22 Sept. 1969. Let the record show that the membership recognizes and appreciates Dr. Heal's attendance and contribution to the success of the meeting.

Monday Afternoon, 15 September

→ REPORTS FROM THE STATES (Cont'd.)

Kansas: Although Mr. H. Dean Garwood, Kansas State Board of Agriculture, was unable to attend the meeting, he furnished a brief progress report by mail on their project now underway of experimental treatment of houses for termite control and subsequent soil testing for residues of chlordane and dieldrin to determine what happens to pesticides applied. Two houses had been treated to date and initial laboratory work had been done. The project had not progressed to the point where a meaningful report could be made at the time. Mr. Garwood advised that a detailed report of value would be ready for the 1970 meeting. SPECROC is looking forward to this report.

Louisiana (Mr. Carlton): Their state employs five full-time inspectors. The law provides for five structural pest control categories. Exams are given quarterly. The state prescribes a standard termite control contract. The law requires four years experience to qualify for examination except for graduate entomologists who are exempt. Louisiana found it necessary to eliminate "call offices" because of abuses in circumventing the law by rental of another person's license. It was explained that there is no supervision of (or by) such persons and it is almost impossible to pin down responsibility to the licensee. Each such "call office" was limited to two employees. Rental of licensees created a very undesirable situation.

Where the certified operator is supervising other personnel, he must be a full-time employee. It was brought out that certified operators must be held responsible for all work and contracts. Injunctive proceedings have been found the best legal device for getting compliance where necessary.

Mississippi (Mr. Robert McCarty): They removed the regulation requiring high school graduation as a qualification for examination because their law did not provide for this. All wood-destroying organisms jobs must be reported. The state has a 5 per cent sales tax on pest control services. The conference was told that pretreating jobs sometimes run as low as \$15 to \$20. The cost of corrective treatments has risen while cost of pretreating has decreased over recent time.

Oklahoma (Mr. H. H. (Buck) Latham): Monthly reports of termite control jobs are required, but contract copies are not. They presently have one full-time structural pest control inspector. Inspections are made primarily on a complaint basis. Pest control operator's certificates must be renewed annually or the operator is subject to reexamination. Mr. Latham advised that the performance bond formerly required was eliminated, but that he considered it served a good purpose and would like to see it restored. They have no pest control commission. Examinations are given quarterly. Termite jobs reported and inspected in Oklahoma are as follows:

<u>YEAR</u>	<u>JOBS REPORTED</u>	<u>PRE-TREATS</u>	<u>KIND</u>	<u>TOTAL JOBS INSPECTED</u>
1968	14,116	5,989	Termite	185
1967	14,278	5,216	Termite	618
1966	<u>12,981</u>	<u>6,446</u>	Termite	<u>490</u>
	41,375	17,651		1,293

Tennessee (Mr. Clarence E. Turner): There has been no change in their law since 1961. They require the reporting of termite control jobs only. A \$3.00 fee is collected for each job reported and a copy of the job contract is required. Exams are given quarterly. A preliminary exam is conducted in three different locations. A month later, those who pass go before their licensing board for oral and written examinations. They require a collection of 25 identified specimens as one qualification for a license. Mr. Turner advised that Tennessee law provides for first and second class offices with no limit on the number of branch offices. Presently, they employ five full-time structural pest control inspectors.

Monday Evening, 15 September

Social Hour - Courtesy of Rollins, Inc., Orkin Exterminating Company Division

Tuesday, 16 September

FIELD TRIP TO WOOD PRODUCTS INSECT LABORATORY, GULFPORT, MISSISSIPPI

Mr. H. R. Johnston, Supvr. Research Entomologist and Project Leader

The group reconvened at the Monteleone Hotel at 8:00 A.M. for departure to the Wood Products Insect Laboratory, U. S. Dept. of Agriculture, Forest Service, Southern Forest Experiment Station, Gulfport, Mississippi. Transportation was furnished those desiring it courtesy of Richard Carlton and his staff of the Louisiana Dept. of Agriculture. Enroute to the laboratory members had the intensely regrettable occasion to view the catastrophic damage recently wrought by hurricane Camille along the Mississippi Gulf Coast beaches.

Our visit to the laboratory, including discussions with laboratory personnel and tour of the main laboratories and outlying field facilities and experimental plots, was an outstanding success in all respects, and one that will long be remembered. Those members who were unable to attend missed a wonderful opportunity.

The group was briefed by staff members on research projects completed or in progress and of special interest to regulatory officials concerned with statutes and regulations dealing with wood-destroying organism control treatments. Laboratory experimental work and field plot tests under way were reviewed by the researchers and observed first-hand by the visiting officials. Of great interest to our members, the staff presented a very informative and timely review of the history and current status of the introduced and economically important Formosan termite, Coptotermes formosanus Shiraki, well illustrated with slides and specimens of the pest and its damage.

Reprints of the following publications were made available to the members. Copies are not included herewith, but may be requested by writing the laboratory (complete name above) at P. O. Box 2008, Evergreen Station, Gulfport, Mississippi 39501:

- (1) Beal, Raymond H. 1967. Formosan invader. Pest Control 35(2): 13-17.
- (2) Hickin, Norman E. 1968. Long-term testing of insecticides against termites at Gulfport, Mississippi, U.S.A. British Wood Preserving Assoc. News Sheet No. 83.
- (3) Smith, Virgil K. 1968. Pesticides in soil. Pesticides Monitoring Jour. 2 (1): 55-57.
- (4) Johnston, H. R. and R. H. Beal. 1969. What's new with the Formosan termite? Pest Control 7 (2): 24-32.

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Secretary's notes:

→ The conference adjourned at the conclusion of the field trip by enthusiastically accepting the invitation, by way of correspondence to Dick Carlton, of H. Dean Garwood, Director, Division of Entomology, Kansas State Board of Agriculture, to meet in the great State of Kansas in 1970, the place and date to be decided later.

Any omissions, commissions or errors appearing in these "Minutes and Notes" are unintentional and apologies are, nonetheless, extended. Corrections will gladly be made in the next issue upon request.

Copies of the Minutes and Notes of the 1968 meeting and of "A Brief History of the State Pest Control Regulatory Officials' Conference" (11 Sept. 1967) are available upon request.

ATTENDANCE ROSTER

ALABAMA

Mr. W. A. Ruffin, Supervisor
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Alabama Dept. of Agriculture & Industries
P. O. Box 220
Montgomery, Alabama 36101

ARKANSAS

Mr. Gerald King, Head
Commercial Pest Control
Arkansas State Plant Board
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Little Rock, Arkansas 72118

CALIFORNIA

Mr. Macon Bonner, Registrar
Structural Pest Control Board
1021 "O" Street, Room A-547
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FLORIDA

Mr. F. R. Du Chanois, Entomologist
Chief-Inspector
State Division of Health
Bureau of Entomology
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Jacksonville, Florida 32201

GEORGIA

Mr. Carl Scott, Jr., Director
Division of Entomology & Plant Industries
Department of Agriculture
Capitol Square - 19 Hunter Street
Atlanta, Georgia 30334

LOUISIANA

Mr. Elton G. Thompson
Louisiana Department of Agriculture
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MISSISSIPPI

Mr. Robert McCarty, Chief Inspector
State Plant Board of Mississippi
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State College, Mississippi 39762

Mr. H. R. Johnston, Project Leader
Dr. Richard V. Smythe, Research Entomologist
Mr. Lonnie H. Williams, Research Entomologist
U. S. Department of Agriculture, Forest Service
Wood Products Insect Laboratory
Gulfport, Mississippi 39501

MISSOURI

Mr. Lester H. Barrows, State Entomologist
Department of Agriculture
Jefferson Building
Jefferson City, Missouri 65101

NEW JERSEY

Dr. Ralph E. Heal, Executive Secretary
National Pest Control Association
The Buettner Building
250 West Jersey Street
Elizabeth, New Jersey 07207

LOUISIANA

Mr. Richard Carlton, Secretary
Structural Pest Control Commission
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Mr. James A. Arceneaux
Louisiana Department of Agriculture
Baton Rouge, Louisiana 70804

Mr. Mancil J. Smith
Louisiana Department of Agriculture
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Opelousas, Louisiana 70570

OKLAHOMA

Mr. H. H. Latham
Oklahoma Department of Agriculture
P. O. Box 3157
Oklahoma City, Oklahoma 73105

Mr. Virgil Laird
Pest Control Operator, 1811 Euclid
Lawton, Oklahoma 73501

TENNESSEE

Mr. C. E. Turner
Division of Plant Industries
Tennessee Department of Agriculture
Box 9039, Melrose Station
Nashville, Tennessee 37204

NUMBER OF RECORDED TERMITE JOBS PERFORMED IN ALABAMA DURING THE FOLLOWING DATES:

January, 1949 through December, 1958
and
June, 1967 through May, 1969

Jan., 1949--Dec., 1949	- - - - -	3,311
Jan., 1950--Dec., 1950	- - - - -	3,454
Jan., 1951--Dec., 1951	- - - - -	3,448
Jan., 1952--Dec., 1952	- - - - -	4,132
Jan., 1953--Dec., 1953	- - - - -	4,202
Jan., 1954--Dec., 1954	- - - - -	5,556
Jan., 1955--Dec., 1955	- - - - -	7,559
Jan., 1956--Dec., 1956	- - - - -	9,796
Jan., 1957--Dec., 1957	- - - - -	12,630
Jan., 1958--Dec., 1958	- - - - -	15,025
June, 1967--May, 1968	- - - - -	33,966
June, 1968--May, 1969	- - - - -	30,945

Prepared by: Division of Plant Industry
State Department of Agriculture and Industries
State Office Building
Montgomery, Alabama
September 10, 1969

MINIMUM STANDARD FUMIGATION PROCEDURES

These suggested standards for fumigation practice are presented to the 10th Annual Conference of State Pest Control Regulatory Officials at The Monteleone Hotel, New Orleans, Louisiana, on 15-16 September 1969, for its consideration.

In addition to the writers' personal experience and knowledge, the following reference sources were consulted in compiling these suggested basic standards, and to which due credit is hereby acknowledged:

- (1) Standard for Fumigation 1968. NFPA No. 57. National Fire Protection Association, 60 Batterymarch St., Boston, Mass. 02110
- (2) Good Practices for Fumigation. 1963. Tech. Release 23-63. National Pest Control Association, 250 W. Jersey St., Elizabeth, N. J. 07202
- (3) Rules of the Florida State Board of Health (now Division of Health). Chap. 1701-2, Pest Control Regulations, rev. 1966.
- (4) Thornhill, Frank L. 1966. Fumigation Handbook. Pest Control Operators of California, Inc.
- (5) Monro, H. A. U. 1961. Manual of Fumigation for Insect Control. Food and Agricultural Organization of the United Nations.

All references read in preparing these standards contain a slightly different definition of "fumigant" and "fumigation". For what it is worth, two more are offered since we do not wish to break what appears to be a time-honored tradition.

The practice of fumigation consists of containing a toxic gas/air mixture at a lethal concentration in a given enclosed environment for a sufficient period of time to kill a specific pest or pests.

Fumigants may be gaseous, liquid, or solid in their packaged form but characteristically evolve, become, or emit toxic gases or vapors in normal atmospheres at normal temperatures and humidity. Aerosols, mists, fogs, or smokes are excluded.

Environments for fumigation vary from tightly sealed vaults capable of sustaining prolonged partial vacuums to an open field infested with nematodes. The same fumigant material may even be recommended for these diverse environments.

Therefore, in proposing minimum standards, it is obvious that the environment must be sharply defined. For our purpose we will consider only enclosed environments which are continuously or intermittently occupied by man and in which the normal fumigation procedure is potentially lethal to man as well as to the pest for which it is intended.

These environments include residential and commercial structures, including their contents, common carriers of all types, vaults, and other enclosures, including various commodities under gastight sheets or tarps.

They do not include open, isolated, or primarily unoccupied environments, such as rodent burrows, lawns, plant beds or fields, spot fumigation of mill or food processing machinery, grain bins, and silos. It is recognized that large lawn fumigations under

tarps and large-scale spot fumigation of food processing plant machinery may pose serious hazards to human health and safety, and that all due safety precautions should be taken as for fumigation of enclosed environments.

Minimum standards for fumigation then must center around the safe and effective performance of this highly hazardous work. As pointed out above, only fumigation of enclosed environments are considered here.

Minimums will be laid out in the order that fumigation procedures are normally undertaken. Headings are used to describe the phase of the fumigation operation to which the particular standards apply.

I. Preliminary Survey and Planning

- A. Inspect and survey infested area or commodity to determine pest or pests to be controlled. Obtain commodity history relating to prior fumigation and analysis for residues, if necessary.
- B. Survey building or enclosure. Determine sealing procedure to be used. Locate windows, doors and other exits or entrances. Locate and note types of utilities and cutoffs for each. Check proximity and distance to adjacent or adjoining occupied structures. Observe materials sensitive to fumigants and note quantity and location.
- C. Check state laws and regulations and municipal ordinances. Locate and list authorities requiring notification. Always notify fire and police departments (See E. below).
- D. Select fumigant registered and labeled for commodity pest, area of infestation, location of enclosure, and procedure to be used. Renew or purchase safety equipment required by label or regulation. Obtain proper detectors for fumigant to be used. Destroy out-dated or used canisters. Prepare or obtain warning signs with large block letters giving common chemical name of fumigant, name, address and 24-hour telephone number of responsible fumigator and special hazards of fumigant. Bilingual warning signs may be desirable in some geographic areas.
- E. Arrange with owner or responsible occupant for access to and vacating of persons and animals from structure and removal of materials that might be adversely affected. Written or printed instructions are preferable. Notify authorities.

II. Preparation for Release of Fumigant

- A. Take command of building or enclosure. Obtain all keys and verify location of all personnel. Make final check for removal of materials that might be adversely affected. Clear building of unauthorized personnel. Clear adjoining structures if necessary.
- B. Lay out gas (fumigant) dispersal equipment and sealed fumigant containers. Re-check safety equipment and instruct fumigation crew in procedures to be used.
- C. Seal building or enclosure to one exit. Post warning signs. Connect gas dispersal equipment including fans. Connect sensor tubes to "Fumiscope" or "Gow-Mac". Introduce biological samples if desired.

- D. Make the final check for removal of all unauthorized personnel, pets and for disconnecting utility hazards (pilot lights, etc.). Turn off utilities at main switches or valves. Check entire enclosure and vocally and loudly warn of fumigation. THIS IS THE SINGLE MOST IMPORTANT STEP IN THIS SERIES AND WHERE MANY FUMIGATION ACCIDENTS OCCUR.

III. Release of Fumigant

- A. At least, but no more than, two (2) persons per fumigating crew should be used. More than one crew may be used. Make final check of safety equipment prior to release. Standby equipment must be available.
- B. Release fumigant at label-recommended dosage from exterior of structure if possible. If not, then release fumigant at label-recommended dosage starting at furthest point from final exit. Work to exit. Seal final exit. Lock all exits with lock bar if needed.
- C. Check for fumigant leaks with label-recommended monitoring device and repair as necessary. Post additional warning notices and emergency numbers. Post and instruct guard or watchman. The environment (structure) should not be left unguarded until it has been cleared of toxic fumigant and is monitored and declared safe for re-occupancy.
- D. Recheck for leaks and check alertness of guard periodically during fumigation. Ascertain that no one has re-entered. Add additional gas if indicated by sampling devices.

IV. Removal of Fumigant from Environment

- A. Two man crews should don safety equipment and break immediately accessible seals to allow preliminary aeration. DO NOT STAY IN GAS CONCENTRATION LONGER THAN ABSOLUTELY NECESSARY. When test device (detector) shows drop to less hazardous concentration, re-enter and loosen all seals. This may require two or more steps.
- B. Set up ventilating fans and ventilate until label-approved test devices show general area is clear. (If inside or outside temperature is 65°F or less, heat enclosure to 75°F to make this test.) Remove fumigation supplies and destroy used canisters. Dispose of empty fumigant containers according to manufacturer's directions or regulations.
- C. Test confined dead air spaces such as ducts, closets, cabinets and drawers and probe absorbent surfaces such as mattresses, upholstery, rug pads, foam rubber and stuffed toys with label-approved test device until clear. Temperature requirement is the same as for general area. DO NOT release structure if any trace of gas is present.
- D. Post conspicuously and hand deliver signed statement of final clearance to owner or responsible occupant stating structure is clear of gas and safe for re-occupancy. Statement should contain date and hours of release, emergency numbers of poison information center, fumigation operator in charge and common chemical name of fumigant used.

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