

OL. 29, NO. 10

OCTOBER 1974

# Food Drug Cosmetic Law

## JOURNAL

apers Presented at the Conference on  
Railroad Car Sanitation



A COMMERCE CLEARING HOUSE PUBLICATION  
PUBLISHED IN ASSOCIATION WITH THE FOOD AND DRUG LAW INSTITUTE, INC.



**T**HE EDITORIAL POLICY of this JOURNAL is to record the progress of the law in the field of food, drugs and cosmetics, and to provide a constructive discussion of it, according to the highest professional standards. The FOOD DRUG COSMETIC LAW JOURNAL is the only forum for current discussion of such law and it renders an important public service, for it is an invaluable means (1) to create a better knowledge and understanding of food, drug and cosmetic law. (2) to promote its due operation and development and thus (3) to effectuate its great remedial purposes. In short: While this law receives normal legal, administrative and judicial consideration, there remains a basic need for its appropriate study as a fundamental law of the land; the JOURNAL is designed to satisfy that need. The editorial policy also is to allow frank discussion of food-drug-cosmetic issues. The views stated are those of the contributors and not necessarily those of the publishers. On this basis contributions and comments are invited.

The FOOD DRUG COSMETIC LAW JOURNAL is published monthly by Commerce Clearing House, Inc. Subscription price: 1 year, \$25; single copies, \$3. Editorial and business offices, 4025 W. Peterson Ave., Chicago, Ill. 60646. Printed in United States of America.

October, 1974

Volume 29 • Number 10

Second-class postage paid at Chicago, Illinois and at additional mailing offices.

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# FOOD DRUG COSMETIC LAW JOURNAL

Table of Contents . . . . October, 1974

	Page
Reports to the Reader .....	491
Potential In-Transit Contamination of Food Products in Rail Cars .....	James H. Rutledge 492
Rail Car Contamination Potential—A Feed Manufacturing View .....	John R. Snyder 499
NAFC's View of Railroad Car Sanitation .....	Carl L. Haderer 504
The Problem of Quality Deterioration in the Railroad Freight Car Fleet .....	Elmer H. Atchley 510
Railroad Program for Clean Cars .....	William H. Van Slyke 519
Railroad Car Sanitation and the FDA .....	Sam D. Fine 527
The Commission's Role in Car Supply and Its Actions Concerning Boxcars and Covered Hopper Cars .....	Thomas J. Byrne 531
Railroad Car Sanitation—A USDA Perspective .....	Ervin L. Peterson 537
The Role of State Regulatory Agencies in Railroad Car Sanitation .....	Norman E. Kirschbaum 541

Volume 29

Number 10

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# REPORTS

## TO THE READER

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**Conference on Railroad Car Sanitation.**—The following papers were presented at the Conference on Railroad Car Sanitation sponsored by The FDLI in cooperation with the FDA on September 10 and 11, 1974 in Washington, D. C.

"Potential In-Transit Contamination of Food Products in Rail Cars," an article by *James H. Rutledge*, discusses the reasons and potential solutions for boxcar contamination. Mr. Rutledge is a member of the Food Protection and Sanitation Committee of the Association of Operative Millers. His article begins on page 492.

*John R. Snyder*, author of the article "Rail Car Contamination Potential—A Feed Manufacturing View," examines the types of rail car contamination and offers promising solutions. Mr. Snyder, who is employed by the Ralston Purina Company, is representing the American Feed Manufacturing Association. His article begins on page 499.

*Carl L. Haderer*, Assistant Director of Traffic and Transportation for the Great Atlantic and Pacific Tea Company, is a representative of the National Association of Food Chains. Mr. Haderer stresses the aspects of mutual cooperation among the shippers, carriers and receivers of goods transported by rail to stem the problems of rail car sanitation. His article, which begins on page 504, is entitled "NAFC's View of Railroad Car Sanitation."

*Elmer H. Atchley's* article, "The Problem of Quality Deterioration in the Railroad Freight Car Fleet," presents reasons for the degeneration of the nation's rails. Mr. Atchley is representing the Warehouse and Rail Car Sanitation Committee of the Grocery Manufacturers of America, Inc. His article begins on page 510.

"Railroad Programs for Clean Cars," an article written by *William H. Van Slyke*, discusses programs instituted to improve rail service, such as TRAIN I & II and also Train-Track Dynamics, and provides tentative solutions to the chronic rail problem. Mr. Van Slyke is Executive Director of the Association of American Railroads. His article begins on page 519.

*Sam D. Fine*, in his article entitled "Railroad Car Sanitation and the FDA," discusses the FDA's continuous fight against the contamination of food and animal feed while such articles are being transported in railroad cars. Mr. Fine is an Associate Commissioner for Compliance, FDA. The article begins on page 527.

*Thomas J. Byrne*, Assistant to the Director of the ICC, discusses "The Commission's Role in Car Supply and Its Actions Concerning Boxcars and Covered Hopper Cars." His article begins on page 531.

"Railroad Car Sanitation—A USDA Perspective," an article by *Ervin L. Peterson*, examines solutions to the complex issues surrounding improvement of boxcar design and car cleanliness. Mr. Peterson is an Administrator of the Agricultural Marketing Service in the USDA. His article begins on page 537.

*Norman E. Kirschbaum*, Administrator of the Food and Standards Division, Wisconsin Department of Agriculture, outlines the causes of and possible solutions to in-transit adulteration of food, drugs and cosmetics which were summarized by a special study committee report commissioned by the association of Food and Drug Officials. The article, entitled "The Role of State Regulatory Agencies in Railroad Car Sanitation" appears on page 541.

# Food·Drug·Cosmetic Law

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## *Journal*

## Potential In-Transit Contamination of Food Products in Rail Cars

By JAMES H. RUTLEDGE

Mr. Rutledge is a Member of the Food Protection and Sanitation Committee of the Association of Operative Millers.

**A**S MEMBERS of the Association of Operative Millers (A.O.M.), we participate extensively in the interstate shipment of food products, both for human consumption and animal feeds. For the most part, these food products are manufactured from cereal grains, or have grain products as one or more of their ingredients. Such commodities are vulnerable to attack by vermin such as stored products insects, rodents or birds. As food processors, we are subject to the sanitation requirements of the Federal Food, Drug and Cosmetic Act, and the "Good Manufacturing Practices" (GMP's) promulgated by the Federal Food and Drug Administration (FDA).

### Sanitation Programs

In order to assure compliance with these regulations, it is necessary for our companies to conduct rather extensive sanitation programs as a part of our quality assurance effort. Protecting the product against infestation by vermin is certainly a major segment



of the overall sanitation effort, and this protection must be applied from receipt of raw materials through processing, packaging, storage and distribution.

Rail cars are used to a great extent for the movement of food products. Boxcars are used to transport packaged foods, and covered hopper cars are used to ship commodities in bulk. Unfortunately, infestations may be found in these rail car shipments of food products upon receipt by the customer. All too often, the assumption is made that the shipper placed an infested product into the rail car. This is not an accurate assumption.

### **Former Studies on Boxcar Sanitation**

Past studies conducted by both food industry and government associations have clearly established that a significant contribution to food product contamination is derived from rail cars. For example, the Food Protection and Sanitation Committee of the Association of Operative Millers has recently compiled a report entitled "Boxcar Infestation—A Thirty-Five Year Synopsis Report." In that report, there are references cited as early as 1939 and 1940 that describe the problem of infestation resulting from rail cars. In 1950, a special committee of cereal entomologists prepared a report for the Miller's National Federation entitled "Boxcar Infestation and Rodent Contamination of Flours and Foods." More recently, in 1970, the Committee on Food Transportation of the Association of Food and Drug Officials of the United States issued its final study report on contamination hazards associated with the transportation of foods. Also in 1970 and again in 1972, the Food Protection and Sanitation Committee of the A.O.M. has conducted rather extensive surveys of the conditions of free-running boxcars throughout the United States. No attempt will be made here to detail the findings of the various reports and studies just mentioned. These are all available for review by interested parties.

### **Causes of Infestation**

The purpose of referring to these reports and studies is to point out that for quite some time, shippers have been aware of the potential problems of contamination associated with rail cars. For example, insect and rodent infestations frequently stem from hidden accumulations behind the inner wall linings of railroad boxcars. Such accumulations may result from prior loadings with bulk raw

grains, bulk feeds, or other commodities subject to attack by these vermin. Not only have shippers been aware of these problems, but they have also taken various steps to try to combat them. This normally involves the inspection of boxcars for evidence of infestation prior to acceptance of the car; it also involves extensive cleaning of the cars in an attempt to dislodge and remove any debris that may be present; and it may include the application of pesticide chemicals to try to create a barrier of protection for the food lading. Despite these efforts, it often occurs that the source of infestation may be hidden behind the wall linings to the extent that it is not detected by inspection; it is not dislodged and removed by cleaning, and it is not reached or penetrated with the pesticides. When this happens, infestation of the lading may very well result.

### **Protection Efforts**

Shippers have employed other efforts to try to cope with this hidden infestation. One common approach is "coopering" the boxcars, that is, lining the walls and floor with paper or cardboard to try to create barriers between the product and the potential sources of contamination. This is also done to try to protect packaged foods from damage by protrusions or rough surfaces within the cars. Some have tried enveloping the lading in polyethylene sheeting to protect it. There have been attempts to wash car interiors. Fumigating boxcar shipments of food products while they are in-transit has also been utilized extensively. Where possible, many shippers try to use the DFB-type (Damage Free Bulkhead) boxcars and assigned boxcars. It must be recognized that many of these efforts have resulted from cooperation between food companies and railroad companies. Some of these efforts have been very helpful, while others have not been very successful. For example, many companies continue the coopering of boxcars, the in-transit fumigations, and the use of the DFB-type and assigned boxcars, but these efforts only partially alleviate the problem. It still remains that free-running boxcars can serve as sources of infestation.

### **Contamination From Rail Cars**

Up to this point, we have addressed ourselves to potential contamination of food products by vermin or pests. There are other forms of contamination that may stem from rail cars. Odors would be one example, especially in boxcars. Previous loadings could leave

deposits of odiferous materials in boxcars that may not be dislodged and removed by cleaning. Such odors could permeate packaged foods and linger with the products. Normally, off-odors in a rail car can be detected prior to the loading of food products. However, some sources have indicated that this can be a particular problem in late fall and winter months when low temperatures tend to mask odors which may later become apparent due to the warmth of the product that has been loaded into the car.

Chemical residues remaining in rail cars from prior loadings may serve to contaminate subsequent food product shipments. For example, liquid chemicals being shipped in a boxcar may spill from damaged containers, and after they dry, they could leave a residue that could migrate through packaging materials and contaminate food products. Residues from prior shipments of bulk chemicals in covered hopper cars could serve to contaminate bulk food or feed products if the residues are not detected by inspection and removed through cleaning.

Again, as we look at free-running boxcars, it is not unusual to have a variety of foreign material present behind the wall liners that remain from previous bulk loadings. As indicated earlier, some of these accumulations may remain behind the liners even after efforts have been made to dislodge and remove them through cleaning. Unfortunately, these foreign materials may later vibrate loose during the jarring and movement of the car while in transit. Such foreign materials may or may not be infested with insects, and they may or may not be a potential contaminant in themselves. However, the mere fact that they do vibrate loose and work their way out near or beneath the food products in the car can create a distasteful appearance of the load when received by the customer. He may feel that the shipper is not cleaning the cars prior to loading, when, in fact, the shipper has done the best job he can.

### **Conditions in Railyards**

Thus far, we have discussed potential sources of contamination that may result directly from rail cars themselves. A second major problem exists with conditions in railyards that may contribute contamination to shipments of food products. For example, there may be piles of spillage present in railyards where grain or feed or food products have leaked from rail cars. This spillage can serve to attract insects, rodents and birds. If there is heavy weed growth

or stagnant water or junk or debris present in railyards, this can serve as harborage or breeding places for various insects and rodents. A potential problem exists when rail car shipments of food products are held in-transit in railyards where these types of conditions are present. Infestation may result from insects and/or rodents gaining entry into the rail cars where they may have been attracted by the odors of the foods inside. This potential problem exists for both box-cars and covered hopper cars. It must be recognized that even when rail cars are in suitable condition for food lading, it is difficult, if not impossible, to seal them to the extent of totally excluding all vermin such as minute species of insects.

Again, food shippers are employing efforts to try to prevent these pests from entering the rail car shipments. For the most part, this involves sealing and fumigating both boxcars and covered hopper cars in transit to protect the lading. Again, we encounter the commonly held belief that these fumigations are performed solely to irradicate infestation that is present in the product, when in fact, these treatments are being performed in an attempt to prevent infestation from taking place during shipment. Although these in-transit fumigations are helpful, they do not eliminate the *source* of potential infestation. As long as conditions exist in railyards that can serve as an attractant, harborage or breeding place for vermin, in-transit infestation will be a potential problem. Should restrictions become greater on the use of fumigants to protect products while in transit, then this potential source of infestation could become even more significant.

### Long- and Short-Term Solutions

It is a relatively easy task to discuss the potential sources of food product contamination from rail cars and railyards. For the most part, what we have covered up to this point has been known for quite some time. As with most problems, the difficult undertaking is to provide solutions. Here, we must look at both short-term and long-term solutions. For the purpose of this presentation, there are two primary problems. One is the potential problem of contamination resulting directly from the rail cars, the other is potential contamination or infestation that may result from railyards.

Let us look first at the railyards where food product shipments are held in-transit. If conditions are present that serve as an attractant, harborage or breeding place for vermin such as insects,

rodents or birds, we feel that short-term solutions can be implemented. Basically, this involves programs of cleaning and pest control. Frequent cleanup of spillage and debris, the use of rodent control measures and insecticides, and programs to control weed growth can help to minimize potential sources of infestation. One point that must be made here is that all railyards do not exhibit the types of conditions referred to earlier. Indeed, some companies have initiated programs to upgrade and maintain railyards in very satisfactory condition. It is where conditions are less than acceptable that we urge a greater effort on the part of the railroads.

### **The XF Boxcar**

For rail cars, especially the boxcars, let us look first toward long-term solutions. One successful approach currently being employed on a limited basis is the XF assigned boxcars. Basically, the XF boxcar is a refurbished boxcar used by some companies in which the loadings are restricted to packaged food products and compatible commodities. The principle here is that the boxcar is rendered suitable for packaged food loadings, and is then maintained in suitable condition by prohibiting their use for carrying shipments that may create hidden sources of infestation or other forms of contamination. It appears that expanded application of the XF boxcar on a free-running basis would be one of the best available long-term solutions to the problems of contamination or infestation. It may also be advisable for the railroads to formulate Good Transportation Practices guidelines for the shipment of food products in rail cars. If such guidelines are prepared, they should incorporate the input of the food industry as well as government and the railroads.

### **Selectivity in Loading Rail Cars**

On a short-term basis, perhaps it would be feasible to be more selective in the use of existing equipment that is suitable for packaged food lading. In other words, is it possible to earmark boxcars for food loadings that already meet the XF boxcar specifications or could readily be rendered within those specifications? To do so would necessitate limiting the use of these suitable boxcars to loadings that would not create the potentially contaminating conditions outlined earlier. We must also recognize that there will continue to be periods when boxcars that are truly suitable for food lading will simply not be available in sufficient numbers on a free-running

basis. During such periods, shippers may have to continue to rely on in-transit fumigations as an interim measure for protecting food products.

Also, on a short-term basis, there is the need for developing a system whereby shippers of food products can be readily aware of the immediate past usage of any free-running railcar that is submitted for food loading. This would apply to both boxcars and hopper cars. If the shipper has that information readily available, then he can prevent the use of railcars where their immediate past usage may have rendered them a potential source of contamination, such as bulk shipments of chemicals or other contaminating materials.

Speaking for the Association of Operative Millers, we are extremely pleased to be invited to take part in this conference on Railroad Car Sanitation. We truly hope that the foregoing presentation has served the purpose of outlining some of the problems and possible approaches as seen from our industry's viewpoint. It is quite difficult to engage in a discussion of this type without giving the impression of "pointing the finger." It is not our intention to make all other parties out to be the "bad guys" and the food industry to be the "good guys." Nothing could be further from the truth. Obviously, the types of problems we have described did not develop overnight, nor is it likely that they will be resolved within these two days. The important and encouraging fact is that we have a beginning. [The End]

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### FDA MOVES ON REVIEW AND CLASSIFICATION OF FOOD INGREDIENTS

In its first major implementation of a comprehensive review of all food ingredients, the Food and Drug Administration has decided or proposed the fate of twenty ingredients. Twelve final orders, twelve proposals, and two notices published on September 23, 1974 made up a package intended to clarify the extent of testing the Agency will require for various food ingredients, to tighten requirements for listing substances used in food after 1958 as GRAS (generally recognized as safe), and to establish specific criteria for listing ingredients as GRAS. For those substances which the FDA's review panel could not classify as GRAS, food additive regulations permitting specific uses have been issued or proposed. A public hearing on the food ingredients stannous chloride, ammonium ion, iodine and iodine salts, and aconitic acid may be held and persons desiring to present data at such a hearing have been asked to notify the FDA of their interest by October 23, 1974.

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# Rail Car Contamination Potential— A Feed Manufacturing View

By JOHN R. SNYDER

Mr. Snyder, Employed by Ralston Purina Company, Is Representing the American Feed Manufacturers Association.

I AM PLEASED to be representing the American Feed Manufacturers Association (AFMA). To begin, I would like to provide you with some identification of AFMA and the industry it represents.

AFMA is the national trade association representing manufacturers of livestock and poultry feeds. It has been in existence for about 65 years to answer the feed manufacturer's needs with respect to two areas which remain important today—transportation and regulatory compliance. Our subject today involves the transportation area.

## The Animal Feed Industry

The feed manufacturing industry is an integral part of animal agriculture. It falls within the top twenty manufacturing industries in the United States and is the largest industry serving agriculture exclusively. Our best estimates indicate that between 60 and 70 million tons of feed are being manufactured each year. This is exclusive of feeds produced and consumed on the farm. Recognize, if you will, that for each ton of manufactured feed (which is made up of a combination of ingredients) there must be an equivalent amount of ingredients processed. For each ton of feed manufactured and sold there must also be transportation of a comparable amount of ingredients—and usually the ingredients are transported for longer distances than are finished products.

The feed industry is in essence a material-handling industry. We do not originate any of the materials we use. As indicated earlier, we must receive a ton of ingredients for each ton of manufactured feed produced. By far the greatest tonnage of ingredients moves to us by rail car. By contrast, most manufactured feeds move out by truck for delivery to consumers. There is, however, a substantial tonnage of finished products that does move by rail. We are very interested as both receivers and shippers of products.

### **Basic Types of Rail Car Contamination**

For the purposes of this presentation and for the purposes of the subsequent discussion, we believe contamination falls into four basic types. These are (1) physical contamination—such as dirt and foreign material; (2) chemical contamination—such as pesticide contamination; (3) microbiological contamination—such as salmonella and other microorganisms; (4) other contamination—such as odors, which are probably more important to the food industry than the feed industry.

The foregoing types of contamination can be further categorized into two groups—those that are visible v. those that are invisible or nonapparent. Visible contamination is that which can be seen or easily detected. This would include oily stains on car floors and walls, as well as visible foreign material detected on inspection or unloading of the car. The invisible or nonapparent types of contamination would include that physical contamination which is not visible—such as that which is stemming from material working its way out from between car walls, that chemical contamination which is not visible as a result of an oily stain, and, for all practical purposes, all microbiological-type contamination. While odors may not be visible, they are certainly discernible to most people.

### **Importance of Preventing Contamination**

Before proceeding further, let us look at why we feel it is important to avoid contamination. First, we certainly have an interest in preserving the health of the animals receiving feed. Not only are we interested in the health of the animals, but we are vitally interested in the wholesomeness of the food derived from that animal. I'm sure you can quickly recognize the possible impingement of chemical or microbiological contamination on the wholesomeness



of food. We are also, of course, interested in protecting the integrity of our product and the customer purchasing and using our product. Last but not least, there is an element of self-protection from seizure of products and possible legal action.

Recognizing that it is important to avoid contamination, we should examine what can be done in this regard. As stated earlier, we receive a quantity of material equal to that of what we ship. Also, most of the material is conveyed by railroad boxcars or covered hopper cars. The problem of contamination for us in the feed industry is basically an inherited problem. While we may make some of our own problems, the basic cause of contamination of our products is the contamination of the many ingredients used in mixed or manufactured feeds.

### **Quality Control**

An obvious means of avoiding contamination of ingredients is to insist on shipment by the supplier in suitable, well-prepared equipment. Insisting is, however, only the first step. We should monitor our suppliers to insure that they are following our instructions in this regard. This is relatively automatic but does have its limitations. One can't help but observe the type of equipment and how it is prepared when cars are unloaded. Providing there is good communication from the unloading dock to the quality control and management personnel, we should have immediate notice of any problems. It should be noted, however, that of actual contamination only that of a visible nature will probably come to the attention of the unloading crew. Chemical and microbiological contamination will, because of its invisible nature, go unnoticed.

### **Limitations**

The above statements are fine—as far as they go. There are limitations. First, the foregoing procedure does give us a hand on most physical and perhaps some chemical contamination—that which would be revealed by oily stains and the like. It does not give us a hand on the invisible—which is the big problem. Complicating all of this is the fact that our suppliers are not always able to secure the type of equipment desired. They may be literally forced to accept use of boxcars or hopper cars that are not to their liking. It may well be a case of “use it or delay shipment.” Operating on a tight schedule, the feed manufacturer cannot afford to have a sup-

plier ship late. The feed industry is a dynamic business—our main ingredient inventories turn almost daily. A car of grain unloaded at 8 a.m. many times is being fed to chickens by 9 a.m. When our suppliers, in their efforts to keep us supplied, have to use other than suitable equipment, the potential for contamination of all kinds is increased.

Perhaps the equipment is suitable in all respects except the fact that it is dirty or contains material from prior use which is not compatible with feed and ingredients. While this can be handled, we would expect our suppliers to correct the situation before utilizing the car. Should they be put to this extra trouble and expense (employing the philosophy that nothing is free) the cost will ultimately accrue to us, their customer.

If the problem of the car is that it is just in poor condition, should our suppliers be forced to utilize such a car? Even more fundamental, why is the car in that condition? I am reminded of the used furniture store which had the slogan "Used But Not Abused Furniture." The free-rolling railroad equipment seems to be fair game for everyone to not only use but also abuse. This is obviously not right and not in the best interest of all parties.

What has been stated with respect to our suppliers does, of course, also accrue to us as shippers.

### Feasible Solutions

The foregoing brings us logically to a discussion of possible solutions. Regardless of the problems, we must be more interested and place more emphasis on solutions. These can and should be both short-range and long-range in nature.

What can we do in the "short haul?" It seems to us that a first logical step would be appropriate modification of cars, as they are serviced, cleaned and repaired to preclude contamination and facilitate cleaning. For example, it would seem all openings that would permit material to get between the inner and outer walls of cars and serve as a source of contamination could be "blocked out." A second logical step, in our opinion, is more specific designation of the use of cars. Cars used for hauling raw hides should not be used for subsequent hauling of rendered animal by-products or fish products—which is now the case as we understand it. The raw hides can serve as a source of microbiological contamination. A

third step for the feed industry would be to reduce the use of box-cars in favor of covered hopper cars. A fourth step, and a most important one, would be to take that action necessary to determine and publicize the responsibilities of all parties utilizing rail equipment—the shippers, the receivers, and the railroads. Following adequate publication of this information, there should be an enforcement program—that cars will be used and not abused, that cars will be cleaned prior to loading by the responsible parties, and that receivers, shippers and the railroads will do their share.

In addition to the above actions, there should be action to set up appropriate mechanics for reporting the contamination potential—that corrective action or reassignment of cars to different service could be carried out. The best illustration of this need is the example where drums or bags of pesticide material leak or are broken, respectively, and contaminate the car. This fact should be reported by the unloader of the car and that car so marked—both physically and in the records—that it would not be used to transport bulk feed or food products.

As for the long-range solutions, the basic one that comes to our attention is improved car design. Again, car construction should be of a nature to preclude contamination and to facilitate cleaning. As far as other steps that might be taken under a long-range program, we can think of nothing better than a continuation of the points outlined under the short-range aspects.

In summary, we believe the rail car, as a common means of transporting many different materials, is a potential source of contamination of feed ingredients and manufactured feeds. We have outlined what we feel to be appropriate corrective steps that could be taken to lower this contamination potential and, perhaps, even preclude the possibility of contamination. We look forward to hearing what others have to say on this same subject. [The End]



# NAFC's View of Railroad Car Sanitation

By CARL L. HADERER

Mr. Haderer is Assistant Director of Traffic and Transportation for the Great Atlantic and Pacific Tea Company and is representing the National Association of Food Chains.

**T**HE NATIONAL ASSOCIATION OF FOOD CHAINS (NAFC) is a nonprofit trade association representing some two hundred corporate food chains, ranging from the larger, with several thousand stores and approximately some forty distribution facilities, to the smaller, with only a handful of stores. I am sure that all of these companies are greatly concerned about the issues we will be discussing today and tomorrow, as they vitally affect each and every food chain distributor in the country. We commend the joint industry-government working group which sponsored this conference, and which will be working in the months ahead on positive voluntary solutions to some very real and difficult problems.

While I am employed as Assistant Director of Traffic and Transportation for the Great Atlantic and Pacific Tea Company, I am here today not to necessarily represent the views of A&P, but rather to represent the views of the Traffic and Transportation Committee and the Quality Assurance and Sanitation Committee of the National Association of Food Chains.

## Shippers, Carriers, and Receivers

The three main links in the first step of food transportation are (1) the manufacturers, producers, or processors, which in this case are the shippers, (2) the carriers, and (3) the receivers, which in this case are the food chains. While the carrier has an obligation

to provide clean cars, the shipper has an obligation to put clean products into the cars, and the receiver an obligation to clean out the car dunnage and most other matter at the receiving area. While we are not losing sight of the fact that cars should be left clean at destination, much of the problem is not directly related to dunnage and protective material used in the cars as much as it is to the various forms of infestation that are in the car or the product itself to start with.

Speaking for the receivers, we have a very special interest in this area. Food chain warehouses are under very strict control by the Food and Drug Administration (FDA) and action recently has been initiated against the chief executive officers of some chains because contaminated products were found on the premises.

Thus, it becomes imperative that a receiver not allow into his warehouse facility any product which shows evidence of contamination. Many food chains are now inspecting every incoming shipment for signs of contamination and rejecting the shipment if conditions warrant.

### **Monitoring of Shipments**

Food product is too expensive and too scarce these days to permit infestation and rejection to take place. We don't want the problems surrounding whose fault it is and who suffers the loss. We don't want the bad will and economic loss which usually follows.

Therefore, any program this group puts together has to assure and monitor very carefully not only the actions of the carriers (upon which all presentations today have focused) but of all parties to make sure that each is doing not only what the law requires, but what is necessary to protect the product. All of us are required to mitigate or eliminate infestation and contamination.

While receivers do have an obligation, which we recognize, and while the problem may end up in the receiver's warehouse, the crux of the problem does not generally lie with him. Contamination does not usually start in the receiving warehouse but is brought in. Shippers and railroads also have a tremendous responsibility in this area.

## Mutual Cooperation

We agree with the concept of mutual cooperation for which this conference is evidence. Only by pooling the expertise which can be found in the industries represented by the shippers, carriers, and receivers can this problem be solved. These three elements of business are necessary. FDA and other governmental agencies must also, by their legislative mandate, play an important role.

Any program which is devised to improve and assure proper rail car sanitation has to have some teeth in it to make it effective. There has to be the carrot, but also we must have the stick. Even though voluntary approaches to the problem are excellent, there has to be some supervision to insure that the job gets done. This is not only in the interest of shippers, receivers and railroads, which we must consider here today, but also the interests of the general public. Let's face it, the object of this whole exercise is that when consumers put food on the table they must be able to rely on the fact that it is edible, safe, nutritious, and uncontaminated.

Now, how do our industries handle this task in a joint effort?

NAFC has the following recommendations—some within the scope of this conference, others to come at a later time. All of our recommendations are complex, and none are easy.

## NAFC Recommendations

(1) An evaluation should be made of the current state of railroad cars provided for the transportation of:

(A) Human Food: Particularly the use of suitable cars of sanitary specifications for various commodities such as fruits, vegetables, bulk products including grain and grain products, meat and meat products, packaged products (canned, cartoned, bottled, bagged, fluid), etc.

(B) Animal Food: The use of covered hopper cars and other suitable cars of sanitary specifications for various commodities such as blood meal, rendered meal, fish meal, bulk grain products, etc.

(2) We should review the statutory responsibility of rail carriers to supply suitable equipment for transportation, including the condition of the car. How is this responsibility changed by a shipper

furnishing private cars? By the railroads assigning cars to the use of a particular shipper? What about the preparation of a rail trailer for loading? What about railroad fumigation of cars? What is the statutory liability of the carrier? The shipper? The consignee?

(3) We should consider the development of specifications for loading all foods, and particularly perishable fruits and vegetables and frozen foods onto food cars, particularly in the following areas: packaging, loading temperature, and unitization and its effect on sanitation.

(4) We should consider specifications for loading in order to minimize contamination of rail cars through hatches, pipes, vents, conveyors, or other potential routes of contamination.

(5) We should consider the type of car to be used in the future for a specific food commodity (convenience for loading, insulation, floor padding, etc.)

(6) We should consider the development of specifications for all types of rail cars to facilitate the unloading of food.

(7) We should consider the development of specifications for food cars:

(A) Which provide protection from pesticides, toxic chemicals, and salmonella contamination;

(B) Which provide for protection from decomposition of food-stuff by properly closing doors, freedom from attack by the elements and protection of perishable foods;

(C) Which provide protection from filth contamination, including rodents, insects, trash, and miscellaneous filth;

(D) Which provide for maintenance of proper temperatures in transit so as to properly protect (1) frozen foods (2) nonfrozen products such as fresh fruits and vegetables which require protection at specific temperature ranges (3) protection of freezables which require protection from subfreezing temperatures, such as beverages and canned goods;

(E) Which provide for protection of the product from damage and/or contamination under usual conditions of loading, terminal handling, line-haul transportation and unloading, including insulation, cushioning of car, interior protective devices, door, ceiling, floor and wall integrity, sealability, etc.: and

(F) Which provide specific car construction requirements—Interior: floor, sidewalls, and roof, insulation and floor matting.

(8) We should ask the railroads to maintain a record of car loadings and not supply, for the loading of foods, any car previously loaded with toxic materials, or items not compatible with food, unless cars have been sanitized, inspected, and found safe for such use.

(9) The railroads should be required to develop faster, more dependable transit schedules, especially in regard to perishable products, for the longer the product is in transit the more vulnerable it becomes to deterioration and contamination.

(10) We should consider the development of a system of self-inspection and correction by which the agreed specifications are met and maintained by all railroad companies in cooperation with the Food and Drug Administration, with the carrier's responsibility and the shipper's responsibility also clearly defined. What about safety inspections, sanitation inspections, loading inspections, in-transit inspections, unloading inspections, and an education program for inspection and communication to shipper, carrier, and receiver?

(11) We should consider a coordinated review of newly designed food cars for specific purposes to determine if the design meets sanitary standards as each new design is proposed.

(12) We should consider the proposal that the proper governmental agency develop standards for the fumigation of rail cars.

(13) The food industry should consider proper packaging and palletizing specifications for shipping containers (in particular, baled merchandise) to prevent potential damage and contamination during transit.

(14) And lastly, we should develop and implement a reasonable timetable for meeting agreed upon specifications and installation of self-inspection systems. Milestones to be established on a semiannual basis for each phase of development.

These recommendations cannot be achieved overnight—it will be a long and difficult chore.

Future specifications and other documents on which the action committee will be working must eliminate any question of what must be done and the responsibilities of each of the concerned parties. Without specificity there are no operable guidelines, and we are open to further disputes.



## Voluntary Industry Sanitation Guidelines

Again, let me stress that the NAFC is committed to good sanitation practices. Joint efforts are not new to us. Working together with FDA, Grocery Manufacturers of America (GMA), National American Wholesale Grocers Association (NAWGA), and other food distribution associations we have recently completed the Voluntary Industry Sanitation Guidelines for Food Distribution Centers and Warehouses. It will be published at the end of this month. This document represents voluntary industry standards which a food warehouse should meet to have a clean operation, and to be in compliance with the law. It is also the first officially FDA-approved guideline for food warehouses. Our people will specifically know what they have to do to be in compliance with FDA.

### Good Sanitation Practices

In conclusion, let me say that the member companies of NAFC are committed to good sanitation practices. We have special responsibility as the last link from farm and packaging to the table. We are the last contact with the consumer and the first to feel his wrath when conditions do not meet his approval. It is therefore extremely important to us, but it is a job that we cannot do alone, because most of what happens occurs beyond the reach of the receiver. If the other parties of this modern miracle industry do not live up to their end of the responsibilities, there is little that we can do to meet ours. So it is imperative that all parties—carriers, shippers, and receivers—live up to any forthcoming specifications and guidelines which may be developed in the future.

The bottom line is the health and welfare of all Americans. We are not only shippers, carriers, regulatory agencies and receivers, but also consumers.

As consumers we know we have a right to be able to depend upon the product we put on the table. As receivers, we know we cannot do the job alone. We must rely upon the help of all other segments of the food distribution industry.

We know from the great cooperation received so far in the action committee that it can be done. **[The End]**



# The Problem of Quality Deterioration in the Railroad Freight Car Fleet

By ELMER H. ATCHLEY

Mr. Atchley Is Representing the Warehouse and Rail Car Sanitation Committee of the Grocery Manufacturers of America, Inc.

**T**HE QUALITY STANDARDS for freight cars used for the transportation of consumer products is unusually high. Nothing less than clean "food quality" cars are acceptable vehicles for consumer product transportation. The integrity and wholesomeness of our food supply is basic to consumer acceptance and protection. For this reason consumer product manufacturers spend millions of dollars annually for extensive inspection and quality control programs for manufacturing and storage facilities to ensure that the product delivered to the ultimate consumer is pure, safe, and wholesome. The Food and Drug Administration (FDA) and other governmental agencies promulgate control procedures to assure that consumer products are clean and uncontaminated during all stages of processing and storage. However, during the transportation phase of the distribution cycle, consumer products moving between clean manufacturing and storage facilities are sometimes placed in freight cars which are not clean and almost always below the quality standards prescribed for and maintained within the manufacturing and storage facilities.

## Quality Defects

The quality defects of some boxcars (contamination, insect, and rodent habitation) are not always visually detectable—by either railroad or shipper inspectors. However, nondetectable boxcar quality defects are not an excuse for placement and use of freight cars that

do not meet quality standards for the transportation of consumer products. And, freight car quality standards for the transportation of consumer products must be, at minimum, consistent with the quality standards for the manufacture and storage of consumer products.

### **Necessity of Boxcar Quality**

The interest of Grocery Manufacturers of America, Inc. (GMA) is more related to quality of boxcars than other freight car classifications because:

Boxcars are the transportation instrumentality most frequently used for transportation from the manufacturer to his customer;

The quality of the nation's boxcar fleet has and continues to deteriorate at a more rapid rate than other classifications of freight cars;

The uses of other classifications of freight cars, tank cars, hopper cars, etc., are most generally used for the transportation of ingredients to manufacturer's plants.

### **Amount of Operable Boxcars Decreasing**

There are several reasons why the quality of the nation's boxcar fleet is below the quality of other freight car categories. One of the most important is the fact that the boxcar fleet is decreasing in quantity, concomitant with a significant increase in demand. In 1965, the nation's railroads owned and operated approximately 600,000 boxcars and moved about 700 billion revenue ton miles of freight. In 1973, the number of boxcars owned and operated by those railroads has been reduced to about 510,000, and the number of revenue ton miles of freight has increased to about 850 billion.

Basically, the national boxcar fleet is comprised of general and special boxcars.

General purpose boxcars have declined from about 500,000 in 1965 to 330,000 in 1973—a net reduction of 170,000 cars.

Special purpose boxcars have increased from about 98,000 in 1965 to 180,000 in 1973—a net increase of 82,000 cars.

Thus, the overall change for the eight-year period, 1965-1973, was a net decrease in the total boxcar fleet of approximately 85,000 cars.

### **Special Purpose Boxcars**

The use of special purpose boxcars generally involves an assignment to specific consumer products manufacturers for an exclusive use, which almost always provides the manufacturer an opportunity to inspect and otherwise control car quality. In other instances, car quality control is achieved in special purpose boxcars

by limiting the use of those cars to food or other noncontaminating packaged products.

Those "built in" quality control factors do not mean that special purpose boxcars do not constitute a quality control problem. They only mean that quality control problems are less frequent for special than for general purpose boxcars.

### **Misuse of Quality Control Regulations**

There are other important reasons for the deterioration in the quality of the national boxcar fleet. The use of "food quality" boxcars for the transportation of general commodities is an unequivocal misuse. Yet, railroad management permits that misuse—frequently for commodities having physical characteristics that contaminate or permanently "downgrade" "food quality" boxcars. Until recently, there was not an Association of American Railroads (AAR) or an Interstate Commerce Commission (ICC) mandate that prevented the misuse of "food quality" boxcars, nor is there statistical reporting which identifies the nation's needs for, and the availability of, "food quality" boxcars.

### **Causes of Contamination**

From the point of view of consumer product manufacturers, the minimal acceptable quality standards for boxcars must be assured protection from food contamination during transportation attributable to:

insect and vermin habitation

microbiological and/or chemical element residues

undetectable (at time of loading) odors

physical condition of the boxcar (its capability to protect against environmental elements)

### **Limited Effectiveness of Control Efforts**

Unfortunately, totally effective quality control of general purpose boxcars by consumer product manufacturers is not possible because:

Infestation and vermin habitation may be concealed behind boxcar interior linings and not detectable at time of loading;

Microbiological and chemical residues are almost never detectable at time of loading;

Odors, even those capable of penetrating food products, may not be detectable at time of loading if boxcar doors have been open prior to placement for loading, or if temperatures are low.

## **Widespread Problem**

The scope of the boxcar quality problem facing the consumer product industry is perplexing as well as substantial. Although it is difficult to establish absolutes from available data, a recent food industry analysis indicates that more than one million general and special purpose boxcars carry GMA-type products from manufacturing points into food distribution warehouses annually. Approximately 75 percent of those one million boxcars contain food products for human consumption; the remaining 25 percent contain related consumer products which flow through food distributor warehouses on their way to the ultimate consumer's pantry. The requirement for food quality boxcars in the transportation of soft edible food products (cereals, flour, gelatin desserts, etc.) is obvious. The requirement for the transportation of hard food products (canned and bottled goods) and soft nonedible consumer products is more subtle. The point being that a food distributor is as concerned with an infested boxcar containing napkins, toothpicks, or canned goods as he is with an infested boxcar containing flour. In either instance, infestation or any other form of contamination can be transferred from boxcar to warehouse to pantry.

## **Coordinated Effort Essential**

The consumer products industry—the shipper and receiver, the railroad and its association, and the regulatory agencies—must coordinate their efforts to assure “food quality” for all of the one million boxcars carrying food and related products from consumer products manufacturers to food distributor warehouses. Notwithstanding the fact that food manufacturers have actively engaged in extensive research and investigated every conceivable technique for the protection of food products during transportation, boxcar quality control continues to be elusive. There are several impediments to effective boxcar quality control. The most significant of those impediments are a catastrophic railroad financial crisis, ineffective railroad boxcar classification procedures, user loading and unloading practices, and the desperate need of the industry for a technological breakthrough with respect to boxcar sanitation practices.

## **Financial Plight of Railroads**

The railroad financial crisis has drained the industry's cash supply. In 1972, U. S. Class 1 Railroads ranked 69th out of 70

major industrial groups in percent of return on net worth. And, 1972 was not substantially different than a relatively prosperous 1973 for which net railroad operating income at \$359 million was the highest earned by the railroads since 1966. However, even in a relatively good 1973, the rate of return on net investment for all U. S. Class 1 Railroads, barely exceeded three percent.

The financial crisis is not restricted to the highly publicized plight of the eastern railroads, for which financial condition is close to terminal cancer. For those railroads, 1972 and 1973 rate of returns were less than one percent up from "red ink" in 1970-71 but down from a relatively respectable 4(+) percent in 1955 and 1956.

In the western district, rates of return have varied from a low of 2.5 percent in 1960 to a high of about 4.2 percent in both 1972 and 1973—not enough to prevent three of the midwest's so-called "granger" railroads from operating in the red and "teetering" on the brink of bankruptcy.

Even in the relatively prosperous southern district, Class 1 Railroads have turned in a rate of return exceeding five percent only twice since 1956—5.2 percent in 1972, and 5.4 percent in 1973.

### **Boxcar Classification**

With numbers like these, railroad management faces a "monstrous" challenge to generate adequate funding for its future capital spending requirements for boxcars, freight car cleaning facilities, and car cleaning research dollars. The railroad's boxcar classification procedures do not assure the selection of food quality boxcars for consumer products transportation. Most railroads classify "food quality" boxcars as Class "A." A railroad classified Class "A" boxcar is intended to be clean and acceptable for the transportation of edible food products. It too frequently is not. The technique used by railroads to differentiate between a Class "A" "food quality" boxcar and a Class "B," "C," or "D" boxcar used for the transportation of low grade commodities is ineffectual, rendered almost useless by the overall quality decrease in the national boxcar fleet.

### **Defects of Classification System**

It is not difficult to recognize some of the substantial defects in the railroad classification procedure:

Boxcar classification consists of a car inspector's visual inspection of the boxcar, which only infrequently detects infestation, vermin habitation, or contaminants behind linings.

Class "A" is not a controllable car usage category, meaning the car is for general use such as for loading flour, sugar, etc., and etc. frequently means a multitude of products, some of which are classified as contaminants and destroy future Class "A" usage for food products.

Class "A" is not identified on the boxcar except by temporary carding, meaning the car has been visually inspected by a railroad car inspector.

Class "A" is not uniformly interpreted or applied as by the railroads or as by the car inspector on a single railroad, meaning only that visual inspection indicates approval by the inspector's subjective interpretation.

It is not unusual for a boxcar, after having transported grain, to be swept clean, and then to be classified as Class "A" by a railroad inspector. But, after sweeping the car "clean," it is normally not sufficiently "clean" for loading consumer products. The car will probably contain grain, insects, rodents, and/or other contaminants behind the car lining.

If the railroad industry is to have effective car quality control, it must develop industry-wide cleaning techniques subsequent to a use of the car for transportation of corrosives, toxins, or the detection of insects, vermin, or other contaminants having a potential deleterious effect upon boxcar quality.

### **Sophistication of Sanitation Methods Necessary**

The principal boxcar cleaning technology of most railroads is basically unsophisticated—best described as still in the "garden hose" and "straw broom" era. The transportation industry is in desperate need of technological breakthrough with respect to freight car cleaning, infestation, and vermin control programs. Unfortunately, there are no substantial research dollars available for development of much-needed technological breakthroughs. If those technological breakthroughs are to be realized, a research responsibility directed towards improved freight car cleaning technology should be placed within an appropriate federal commission or the AAR . . . and, an approximate number of research dollars should be made available.

### **Further Barriers to Quality Control**

The recent trend toward material alleviation of railroad car cleaning facilities is a significant step backwards. Whatever reliability railroad management is placing on the ICC's "clean car rule" as a major freight car quality control factor is basically misguided. Unexcusable, self-serving practices of shippers and receivers, combined with their economic clout and shortage of railroad boxcar inspection personnel, significantly impedes an effective industry-

wide enforcement of provisions of the clean car rule. Many receivers of freight do not remove bracing, blocking, dunnage, paper residue, and other debris contained in boxcars on arrival. As a matter of fact, too often receivers are guilty of loading warehouse debris and other refuse in boxcars for shipper cleaning if boxcars are assigned, for railroad cleaning, if not. However, even if receivers substantially complied with the provisions of the clean car rule, they would still *not* be required to close and seal car doors, report mechanical defects, contamination, infestation, or vermin habitation of cars, nor abstain from abusive (to the car) loading and unloading practices.

### **Pesticides**

The rapidly diminishing "food quality" characteristics of free-running boxcars are offset somewhat by shipper cleaning, patching, and pesticide treatment. Based on a recent food industry survey, approximately one to two pounds of pesticides (methylbromide, phosphine, Malathion, pyrethrin, etc.) is applied to the average 50-foot boxcar to assure insect and vermin control during food transportation. The application of 50 pounds of pesticides to the one million boxcars carrying consumer products to food distributor warehouses means that approximately one to two million pounds of pesticides are introduced into boxcars, and concomitantly, into the environment at a cost from five to thirteen million dollars annually.

### **Extensive Infestation of Rail Cars**

However, in spite of the cleaning, trash removal, patching, and pesticide application, a recent trade association survey indicates that as much as 45 percent of the nation's general purpose boxcar fleet contains live infestation and, it follows, that some, which means too many, consumer products shipments are transported in those infested cars. The inability of shippers to totally avoid loading contaminated or infested boxcars is frequently related to the design of the cars—most significantly, the interior car lining which extends from ceiling to floor and impedes the detection and control of insects and vermin. The space between interior lining and exterior wall permits collection of feeds and other bulk materials that provide attractive harborages for insects and vermin and makes them almost impervious to pesticide sprays which cannot penetrate the interior lining. Currently, the railroad industry is accelerating its testing of the functional capability of "linerless" boxcar interiors



through a pool of 10,000 cars financed by several major railroads and managed by a railroad subsidiary, the trailer/train system.

### **Assignment Program Adopted**

Beginning in about 1962 many of the nation's railroads and food manufacturers began seeking a solution to the boxcar quality needs of the food industry. Those efforts led to a boxcar assignment program under which food quality boxcars were assigned to the dedicated use of food manufacturers. The boxcars placed in the assignment program included:

Boxcars equipped with load protective devices, so-called DF or DFB cars, officially classified as XL boxcars per the Official Railway Equipment Register. Boxcars not equipped with load protective devices, so-called "general purpose" boxcars, officially designated as XM boxcars per the Official Railway Equipment Register.

Boxcars not equipped with load protective devices but equipped for a special commodity, so-called "special purpose" boxcars, officially classified as XP boxcars per the Official Railway Equipment Register.

Under the boxcar assignment program, many railroads furnished XP boxcars; unlike DF or DFB boxcars, in that they did not contain "devices" for load protection; unlike "general purpose" boxcars in that they were built (or rebuilt) to meet food quality standards, and not for "general purpose" usage. The only design construction feature of the XP boxcars is the interior, which is finished in a white epoxy coating.

"White" is used because of its cleanliness-aesthetics and the effectiveness of white towards cleanliness.

Epoxy is used because of its ability to seal the surfaces of the boxcar's interior lining against dirt, insects, and odors and its ability to finish the interior wall smoothly for damage prevention values.

The XP boxcar was not used as a "general purpose" boxcar and thus, was not subjected to the detrimental (to quality) effects of bulk and contaminating products.

### **The "XF" Boxcar**

In November, 1973, the AAR implemented a new category of dedicated boxcar—XF, per the Official Railway Equipment Register. XF boxcars are restricted to processed package food loading only. XF boxcars may be used for loading other noncontaminating products contained in clean packaging only with the approval of railroad owners. XF cars must not be used for the transportation of bulk commodities; and if XF cars become contaminated or damaged due

to improper loading, repairs must be performed by or at the cost of the railroad placing the car to permit the improper loading.

XF cars are different than XP boxcars in that they need not be assigned and may constitute an appropriate percentage of the nation's "general purpose" boxcar fleet. They are different than XM boxcars in that they may be assigned for specific purpose usage. Violations of loading and usage directives applicable to XF boxcars are subject to the assessment of a \$100 fine against the railroad permitting the violation. Many railroads are now converting parts of their free-running XM boxcar fleets and assignable XP fleets to the XF category.

### Effectiveness of the XF

While the number of food quality XF boxcars is not large, the future fleet has the capability of assuring the wholesomeness of food products during transportation while concomitantly producing economies for the railroads of about \$200 million annually.

The application of XF boxcars to food distribution has the potential of:

Greatly reducing, if not totally eliminating, expensive boxcar cleaning operations, as these cars do not need to be switched to and from cleaning tracks. Their food-only use and cleaning by users have contributed to these economies for the railroads.

Greatly reducing infestation and contamination damage to edible food products and the concomitant switching, return transportation, handling, sorting of products, etc.

Greatly reducing the cost of boxcar repair. The interiors of XF boxcars can be maintained to meet food quality, transportation standards at relatively low cost.

Greatly reducing, if not totally eliminating, switching of rejected, unfit boxcars, from industry loading tracks.

Greatly reducing, if not totally eliminating, use of pesticides as a boxcar infestation control—worth 5 to 13 million dollars annually.

GMA appreciates and supports the railroads' XF boxcar program as the most constructive boxcar quality program implemented in decades. We believe that "the XF" program can be the short- and long-range solution to the nation's critical need for a food quality boxcar fleet. But, whether the "XF" car is to be the food-quality transportation boxcar of the future, it must be afforded the same economics as free-running XM boxcars including incentive per diem. However, that is another issue for another conference. **[The End]**

# Railroad Programs for Clean Cars

By WILLIAM H. VAN SLYKE

Mr. Van Slyke Is Executive Director of the Association of American Railroads.

**T**HE SUBJECT AT HAND is railroad freight cars and their cleanliness or lack thereof. Well, to be perfectly honest, the railroads neither infest freight cars with vermin or inedible material nor leave them full of debris. Someone else does that. We believe that cooperation between shippers, railroads and consignees is the proper approach to the problem of providing clean cars. However, because, just after sex and televised sports, one of the more popular American pastimes is criticism of the railroads, we are into it and can't escape it.

## Progress in Railroad Service

First, I would like to mention some of the broad activities in progress designed to improve service to railroad customers. Several months ago, the railroads through the Association of American Railroads (AAR) and in coordination with government and the shippers launched a massive car utilization research program. There has been input from many different sectors of the transportation community. While all railroads have some programs to improve utilization, this coordinated industry effort is designed to share the best practices of each.

Another successful program is called Train-Track Dynamics. This is a cooperative effort supported by railroads, suppliers, government and the AAR. The results are already apparent in operating practices and there is a potential for long-term improvement in rail service.

At the same time, there is a serious study between labor and management in the St. Louis terminal directed at examining the consequences of existing work rules and their impact on productivity.

The AAR is presently engaged in the development of TRAIN II, a concentrated expansion of our present computer system called TRAIN I. The primary purpose of this new system will be to provide more effective car control and to increase utilization of the nation's cars. Such information will give the AAR a powerful tool to prevent or reduce car shortages during peak periods of demand.

One important element of the new system will enable a railroad to quickly identify the commodity last contained in each individual car. This is possible even if the car unloaded on another railroad.

Now I can further review some of the programs directly related to this conference. Much contamination of boxcars has been caused by the loading of bulk commodities into boxcars with inside wood linings. As the fleet of 40-foot boxcars are retired they are being replaced by covered hoppers, which are easier to clean and keep clean. In cooperation with the food industry, the railroads introduced a food loading car with AAR mechanical designation "XF." These cars are epoxy-lined and are dedicated to food loading. We estimate that approximately 2,000 such cars are now in service and more will be added as finances permit. In addition, there are many thousands of equipped boxcars and refrigerator cars assigned to the movement of food.

Over the last few years thousands of single-walled, unlined boxcars have been designed and built to reduce maintenance and diminish the necessity for cleaning. Also, they will be easier to clean when necessary.

The railroads have on order 10,000 fifty-foot single-walled boxcars to be placed in a national pool for maximum utility. The first cars for this fleet are due from the builders this month.

Intermodal containers remain a small percentage of the equipment used for food and feed loading. However, several projections indicate they may become a significant tool in the distribution phase of food marketing. Containers offer another alternative to movement of wholesome foods.

Now, I would like to describe what we can't do. We can't insure that every freight car is as pure as the driven snow when we pick it up and deliver it to another point for reloading prior to transfer to yet another consignee. Our train crews are not qualified to do this. They wouldn't begin to have the time or even opportunity to do it.

There is not, and never will be, enough inspectors to insure the inside cleanliness of every car. We do have inspectors who make

spot checks, and their presence does reduce the number of cars released dirty by consignees.

### **Rail Car Cleanliness**

When I was preparing for this discussion, I sent a letter to the Class I railroads that asked 10 questions concerning car cleanliness and how it could be improved.

One of the questions I asked was whether the Clean Car Rule worked or whether, for one reason or another, it was inadequate.

I would like to quote part of an excellent answer I received from one of our members.

"It cannot be expected that railroads are to physically inspect the interior of every freight car before removing it from a customer's docks. It has been my observation that many shipper organizations insist that all users of railroad freight equipment fully comply with the rules and regulations, and it is my further observation that in many cases where cars are released not completely unloaded that the personnel actually unloading cars were allegedly not conversant with these rules. It is my opinion that until all users of railroad freight cars seriously consider the problems resulting from indiscriminate unloading procedures and take action to fully comply with the rules, we will continue to have problems in this area."

In other words, the Clean Car Rule works when it is applied—and when those personnel responsible for cleaning the cars understand it.

At many locations the railroads have modern car cleaning facilities with vacuums and high pressure water systems. Admittedly, many of the small volume locations still use brooms and hoses as has been suggested by some of the participants in this conference.

Among the other questions I asked of the various railroads was whether they had any particular programs for attempting to insure that cars being sent to shippers of foodstuffs were not contaminated.

An interesting answer came from another member railroad.

"We have established a computerized method of identifying cars by classification grade. This covers all our cars and converts the last commodity loaded in the car to a commodity classification. We have dedicated a sizeable amount of our equipment to the food industry. These cars are in pools and by means of computerization they are monitored on a customer basis to insure against misappropriation and downgrading."

Now that's an interesting approach to this problem, and one that I suspect will be applied more and more as time goes on and computerization techniques become even more sophisticated and their uses more widely applied by the railroads.

Speaking of railroads and computers and food cargoes leads naturally into thoughts of something that was a combination of all three—something that made transportation history.

I speak of the Great Grain Haul of 1973. At the beginning of last year, the railroads were faced with predictions of a transportation breakdown because of huge new export orders and a delay in ocean shipping arrangements. Well, at year's end, the figures showed the railroads had increased their shipments of grain to ports, by more than 100 percent compared to the previous year—to some 2.4 billion bushels, up about 1.3 billion bushels over 1972. I would like to point out that the overall increase in exports (based on Department of Agriculture figures) was 1.1 billion bushels. That means the railroads handled all of the 1973 export grain increase, plus a percentage of the volume that moved to port by other modes in 1972. This means the grain on the plain moved mainly on the trains.

And we had few complaints about the condition of the freight cars that moved this enormous load. This achievement points up anew that railroad efficiency increases, as it must, apace with the demand for rail services.

The demand is continuing to increase. Last year the railroads hauled more freight than in any other year of their history—852 billion ton-miles. That was almost 10 percent above 1972, which itself was a record year.

### **Growth of Rail Transportation**

Looking to the future, the Department of Transportation projects a total intercity freight market of 4.1 trillion ton-miles a year by the year 1990—double the 1972 level. The rail share would be 38.7 percent of that number (which is over 1.5 trillion ton-miles) if the industry does no better than hold its place.

It will take money to accommodate this growth. Money for improvement and maintenance of roadway and other facilities. Money for new and rebuilt rolling stock, including the new equipment that would ease the food movement problem we have been discussing.

Money for capital investment is, as you know, a critical problem for the railroads. Last year they invested \$1.3 billion in capital improvements for plant and equipment and some \$300 million more in other new equipment was obtained through leasing.

Yet, an industry report prepared in 1970 estimated the railroads' average capital needs at \$3.3 billion a year through 1980. This figure already is obsolete, however, because it was based on the 1969 dollar value and doesn't account for the forces of inflation. Industry executives now estimate the capital outlay needed for the next few years will exceed \$5 billion a year.

## Financial Support

Where will this money come from?

One solution proffered by a few is public ownership and operation of our railroads. This theory assumes the federal treasury—in other words, the taxpayers—will foot the bill for the difference between what railroads can now afford and what they should invest. It also assumes the taxpayers will have paid a great many billions to purchase the rail system in the first place.

Historically, our national policy has been that private management can provide service more efficiently than public ownership, because the profit motive provides incentives for efficiency and customer service which are difficult or impossible to create in a publicly owned enterprise. The recent financial difficulty of some railroads is explainable on other grounds and does not challenge the soundness of that long-standing policy. The excellent job being done today by most railroads merely proves the point.

The railroad industry and the nation will be better off if this new capital can be generated internally by retained railroad earnings and by funds raised in the private capital markets in the expectation of future earnings. This in turn can only be accomplished if railroad earnings improve substantially over the levels which have been achieved in the industry during the last decade. Since the demand for rail service is strong, earnings obviously depend on adequate rates.

## Rail Operation Earnings

Record traffic last year produced only a fractional increase in earnings from rail operations as return on net investment reached 3.05 percent. By any standard, this rate of return, even though the highest in seven years, is wholly inadequate, particularly when the prime rate of interest charged by the banks is 12 percent. For example, the purchase price of a new freight car is about three times higher than the 20-year-old car it replaces.

In past years, railroad rate increase proposals have failed to improve railroad earnings. In fact, due to regulatory lag and continuing inflation, the railroads have not even been able to keep pace with escalating expenses.

Sustained higher earnings are a sheer national necessity if the public is to obtain the quantity and quality of rail service it

will require in the future. Without the ability to reach a sound cost-rate relationship now, and then to adjust rates upward on a timely basis, the industry will not be able to meet the demand for its services that lies ahead.

Freight rates on food and feed hauling must be examined thoroughly. In particular, some railroads advise that the entire concept of transit rates must be reviewed and altered to provide some economic balance. Such rates were established many years ago when the carriers' cost was much less than it is today. The cost of the basic freight car has escalated to a level that is unbelievable. In addition, many cars used in food service now have elaborate interior lading protective devices that increase costs to even higher levels.

Transit rates have other ramifications. The possibility of insect infestation is increased if a plant unloads raw material and reloads prepared food or feed. Also, many more cars are needed for transit shipments than for direct movement. Transit rates also open up the possibility of circuitous routes with no additional charges for the service provided.

The railroads further advise that shippers of general foodstuffs are often permitted by tariff to be supplied with two or three cars to complete a transit move, all at a nominal cost to the shipper and an enormous cost to the railroad.

If I seem to have digressed from the subject at hand—clean freight cars—and delivered a litany of railroad woes even while concentrating on railroad virtues, please forgive me. It is just that, because of the complex nature of the railroad industry, it is difficult, indeed, to dwell upon one subject without touching on allied matters.

### **Increasing Car Sanitation**

So now let me reiterate, briefly, what existing and projected programs the railroads have toward reducing the problem of dirty freight cars.

As time goes on, the number of boxcars used to carry bulk commodities will be reduced in favor of giant covered hoppers. However, this will take more time than you, or I, would like because of the backlogs of car orders. Some smaller shippers still prefer boxcars because of outdated loading facilities or weight restrictions on branch lines.



There will be more and more of the specially lined boxcars intended only for the transportation of food products. But it is unlikely there will ever be enough of them to meet the entire demands of the food industry.

It is simply not economically feasible for the railroads to amass a large number of specialized cars for one narrow use. The tank car is, perhaps, a good illustration of how this problem was resolved almost a hundred years ago. Because of their limited usage potential and because of the seasonal nature of the petroleum industry's transportation requirements in the 1800s, it was decided that shippers should furnish the tank car fleet. In 1888, the Interstate Commerce Commission (ICC) agreed with this, and ever since the railroads have hauled a lot of tank cars but owned few of them. Today, of a total fleet of 165,000 tank cars, only about 3,500 are owned by railroads.

Some of the speakers this morning mentioned that there are problems with the railroads' lack of uniformity in quality grade classification throughout the industry. In fact, there is a lack of uniformity in quality grade in different areas of the same railroad. A car which is acceptable as a "good grade" car at one point may be completely unacceptable to a shipper 25 miles away.

Again, only the shipper knows the quality of car necessary for his particular commodity. Furthermore, the railroads are not experts in the detection of contaminants. Food shippers have the expertise in this field and know the type of packaging used and extent of cleaning necessary for a precise product.

### **Misuse of Rail Cars**

One area that can be productive immediately and with great benefits to all participants in this conference is:

*Misuse of cars by shippers and receivers.* Too basic and simple to mention? No. AAR and railroad field inspectors find evidence of doors being torn off by forklift trucks. Also, walls and roofs are being damaged by these mechanical loading vehicles. Then, after the damage is extensive, many consignees clean out their warehouses and throw the debris into the car. All of us are penalized by the actions of these irresponsible car users.

Some car users are still failing to completely unload as required by federal law. We do have enforcement of this law. How-

ever, there certainly is a limit to the number of inspectors available for this purpose. 42,000 closed cars are unloaded each day in the United States. There is no way the railroad can inspect that many cars daily. The whole area of misuse can be reduced if the car users and the railroads make a coordinated drive to stop such abuses.

Believe it or not, there are commodities other than food and feed that must be moved on the railroads. Such exciting products as coal, ore, steel, lumber and paper are also vital to the well-being of our citizens. We have a limited amount of capital for the purchase of freight cars and I believe all of you can understand that a large segment of railroad capital must be spent to upgrade and purchase open hopper cars, flat cars and gondolas.

One observation I must make is—any increased responsibility for cleaning or inspecting cars will, of necessity, be passed on as increased cost to the shippers, consignees and ultimately to the consumer.

### Solutions

I don't believe any of us should wring our hands and say there is nothing that can be done. We have already heard many suggested solutions. I don't want to be different. Here are some more:

- (1) Closer cooperation between shippers and consignees to maintain car integrity through sanitary loading and unloading practices.
- (2) Renew efforts to police "clean car rules" established by the Interstate Commerce Commission.
- (3) Concentrate on receivers of contaminated commodities to eliminate the possibility of contaminating the next load.
- (4) Final determination as to whether food or feed may be loaded in a car must remain with the shipper.
- (5) Continued expansion of the covered hopper fleet to eliminate bulk loading in boxcars.
- (6) Continued expansion of the fleet of "XF" food loading cars.
- (7) Continued expansion of single-wall boxcar fleet.
- (8) Continued use of dedicated cars for food and feed.
- (9) Expand research in car design and car cleaning technology.
- (10) Continue cooperative efforts between government, car users, and railroads to find solutions.

During the preliminary skirmishes of this conference, I have had the pleasure of extended discussion with all the people at the head table and many others. All of them are reasonable men and women with a single objective. *Improve sanitation of the food we eat.* The railroad objective is the same as theirs. **[The End]**

# Railroad Car Sanitation and the FDA

By SAM D. FINE

Mr. Fine is Associate Commissioner for Compliance in the Food and Drug Administration, Public Health Service, Department of Health, Education and Welfare.

**T**HE RAILROAD CAR SANITATION PROBLEM has been with us for many years. I first dealt with it in the late 1950's when I was the Director of our Kansas City District. Although the solution to the problem of in-transit adulteration of foods, drugs and cosmetics in railroad cars may not be an easy one, the Food and Drug Administration (FDA) is totally committed to finding such a solution. As a regulatory agency whose primary concern is consumer protection, we are prepared to undertake every possible effort to remedy conditions which present a potential hazard to the health and well-being of the American consumer.

This conference grew out of our continuing concern over foods and animal feeds that have been adulterated or contaminated with harmful substances as a result of their shipment in poorly maintained, contaminated or insanitary railroad cars. Let me review a few examples:

## Instances of Gross Contamination

Not too long ago, FDA seized 990,000 pounds of green coffee beans which had become adulterated with sodium borate, a poisonous and deleterious substance. Our investigation disclosed that the railroad car used to transport the coffee beans had contained crude anhydrous sodium borate prior to being loaded with coffee.

Recently we seized 80,000 pounds of flour which had become contaminated with rodent filth. The investigation revealed that many of the bags of flour had been gnawed by rodents while they were being held under insanitary conditions in a rodent-infested railroad car.

A little while later, FDA seized 100,000 pounds of flour found to be contaminated with rodent urine and rodent pellets. Upon investigating, we again learned that the flour had been contaminated with rodent filth while being transported in a rodent-infested railroad car.

A few months ago we encountered a railroad car loaded with 110,000 pounds of dried spent grain, destined to be used as an ingredient in animal feed. Analysis of the contents of the car disclosed that the grain was contaminated with Chlordane, a pesticide chemical. Further investigation revealed that the railroad car holding the grain had previously been used to transport Chlordane in paper bags. It seems that some of the bags had been damaged in transit, allowing the contents to spill out on the floor of the car. Naturally, when the grain was placed in the car it became contaminated.

Not too long ago, one of our dog food manufacturers recalled 22 separate codes of dog food which had been manufactured from contaminated corn gluten meal. We learned that the meal used in the dog food had become contaminated when it was transported in a railroad car that had previously been used to transport lead oxide.

There are many more instances of similar situations which could be related, but these five serve to make my point: the reputation of railroad cars is being tarnished because, when transporting foods, railroad cars are not being adequately cleaned and maintained. This is a very serious and disturbing problem.

### **Inconsistency in Standards**

It is highly inconsistent to demand standards that insure the quality and wholesomeness of foods and feed products during the manufacturing process, and then allow these same foods and feeds to become adulterated during shipment. For this reason, we have taken the initiative to seek a solution to the railroad car sanitation problem.

FDA has a number of statutory tools available for regulating shippers and carriers of food products shipped in interstate commerce. The Public Health Service Act authorizes the Surgeon General (whose authority in this area is delegated to the Commissioner of Food and Drugs) to provide for inspection, fumigation, disinfection, sanitation, pest extermination, and destruction of animals or articles found to be so infected or contaminated as to be sources of dangerous infection to human beings, and to take such other measures as in his judgment may be necessary for the protection of the public health.

### **"Contaminated Food" Defined**

Under the Food, Drug, and Cosmetic Act, the Agency is responsible for the protection of the public from foods that are unclean,

decomposed, or that have been exposed to conditions that may cause them to become contaminated or otherwise rendered unfit or injurious to health. The provisions in the FD&C Act dealing with foods pertain to both "food" and "feed," since, by definition, food means any article used for food in man or other animals, and components of such articles.

The Act itself is quite specific in prohibiting the commerce, distribution, or sale of foods which may contain causative agents of disease, and repulsive or offensive matter classed as filth, regardless of whether such objectionable substances can be detected by laboratory procedures or whether such substances are present because of the conditions under which the goods were handled. Filth includes such contaminating elements as rat and mouse hairs and excreta, insects, insect parts and excreta, bird excreta, and other extraneous material which, because of the repulsiveness, would cause food so contaminated not to be eaten. The presence of such filth renders food adulterated under the law, whether or not harm to health can be shown.

### **Violations**

Violations under the Food, Drug, and Cosmetic Act are handled in several different ways. Violative products are subject to seizure by the Department of Justice at the request of the Food and Drug Administration. This action is directed against the product and not an individual, although the individual may suffer some monetary loss in the process.

Individuals and firms found responsible for causing the violation are subject to prosecution and/or injunction. A prosecution carries with it the possibility of a fine of \$1,000 and/or one year in jail for each count on the first offense, and a fine of \$10,000 and/or three years in jail on each count for a second offense.

Injunction is undertaken when other methods have failed to obtain correction, or when it is desirable to use a procedure which will prohibit future violations of the Act. Injunctions and restraining orders are useful in keeping offending products from ever getting into interstate commerce. A violation of an injunction or a restraining order constitutes contempt of court; upon conviction, an individual or firm may be punished as the judge considers appropriate.

### **Recall**

Another tool used by FDA is recall. Recall is undertaken by a firm at FDA's request to remove products from the market which present a threat, or a potential threat, to consumers' safety and well-

being, involve product adulteration, cause gross fraud or deception of consumers, or are materially misleading, causing consumer injury or damage. We do not utilize recall in dealing with minor violations, nor is it used as a substitute for the sanctions of seizure, prosecution, and injunction.

### **Regulations**

One last tool is promulgation of specific regulations. The Food, Drug, and Cosmetic Act provides that the Secretary of Health, Education and Welfare may promulgate regulations for the efficient enforcement of the Act. This authority has been delegated to the Commissioner of Food and Drugs. To date, FDA has not promulgated regulations aimed specifically at railroad cars. This is an option which we will consider in the overall scheme of trying to arrive at a solution to the problems which I have described.

### **Industry's Cooperation Imperative**

With the thousands of tons of food and feed substances which have been seized and/or destroyed because they became adulterated or contaminated while in transit, it is obvious that something has to be done to correct the problem. FDA would prefer to bring about this solution through voluntary compliance by the industry. We encourage industry's self-regulation, and will participate in a cooperative program designed to produce a set of good transportation practices guidelines. Such guidelines should inform the industry how to meet the requirements of the law, and promote voluntary compliance through preventative measures designed to keep unsafe and unfit products from reaching the consumer. A program such as this is founded on the basic assumption that the first responsibility for safe and wholesome food rests with the industry, and not with the government.

A plan such as I have described would also minimize the need for regulatory action on the part of FDA; however, should such action be necessary, we are prepared to fully utilize our formal enforcement procedures, including the regulation-promulgating provisions and the punitive provisions of the laws under which we operate.

Let me conclude by saying that although we are prepared to use all available tools to achieve optimum consumer protection, we are convinced that the way to solve this problem is through the participation and cooperation of all who are present here today.

I look forward to working with you in the future. **[The End]**

# The Commission's Role in Car Supply and Its Actions Concerning Boxcars and Covered Hopper Cars

By THOMAS J. BYRNE

Mr. Byrne is Assistant to the Director of the Interstate Commerce Commission.

**I** HAVE BEEN ASKED to speak on the Commission's role in car supply and its actions covering boxcars and covered hopper cars during normal times and emergencies.

It might be well for me to begin my remarks with the statement that the Interstate Commerce Commission (ICC) has been an arm of Congress since its creation in 1887 and that its policy, while subject to a few changes, still is to develop, coordinate, and preserve a national transportation system adequate to meet the needs of the commerce of the United States and of the national defense.

## The Role of ICC

The role of the Commission, including the use, control, supply, movement, distribution, exchange, interchange, and return of locomotives, cars, and other vehicles used for the transportation of property, is exactly that given it by Congress and contained in the provisions of the Interstate Commerce Act. These provisions rule that it shall be the duty of every carrier by railroad, subject to Part I of the Interstate Commerce Act, to furnish safe and adequate car service and to establish, observe, and enforce just and reasonable rules, regulations, and practices with respect to car service. Every unjust and unreasonable rule, regulation, and practice with respect to car service is prohibited and declared to be unlawful.

During normal times, the Commission more or less relies on the railroad industry to furnish adequate service to all of its shippers. To administer car service rules during times of an ample car supply is fairly simple. When there is an ample supply of cars, the shippers can be more selective in their choice of cars and will refuse cars that do not come up to their standards of suitability. The main problem carriers have during such times is in keeping at a minimum the accrual of per diem payments; in other words, getting the foreign cars off their lines by complying with their own car service rules, some of which are now mandatory under the Commission's order in Ex Parte No. 241. In fact, when our nation's carriers have a surplus of a particular type (or types) of car, the Commission will, in order to minimize empty mileage, relax, or, in some instances, waive its Rules 1 and 2 in Ex Parte 241 for a specific period. We have recently done this on plain 40-ft. boxcars. However, Rules 1 and 2 are highly controversial during time of car shortages. When the demand exceeds the supply, carriers sometimes have difficulty in complying with Rules 1 and 2 and often go as far as blaming compliance with these two rules as a factor contributing to freight car shortages.

### **Federal Agency Acts as Protection**

Federal regulation of transportation lines is required primarily for the protection of the shipping public against unjust and unreasonable rules, regulations, and practices; against unjust and unreasonable discrimination between persons, places, and ports; and to insure that adequate facilities are available to all shippers, large and small.

In addition to the car service provisions contained in Paragraphs 10 to 17, Section 1, Part 1, of the Interstate Commerce Act, there are other provisions, all for the purpose of protecting the shipper. Some of these are Section 2 of the Act, which prohibits unjust discrimination and rebating and the provision of Section 3, which prohibits carriers from giving any undue or unreasonable preference or advantages to one party over another. These provisions are closely related to our role over the availability, use, control, and distribution of boxcars and covered hoppers, the types which this conference is interested in during this session.

### **ICC's Importance**

Recently, we have heard some of our economists and politicians advocating elimination of the Interstate Commerce Commission to correct some of the ills that have come to light over the last few years.



It is difficult for any reasonable person to be of the opinion that the Commission is to blame in any manner for the transportation ills of recent years. Since 1887 to the present our nation's railroads, although regulated by the ICC, have prospered and grown into the strongest rail system in the world.

It is true that today some of our railroads are either in bankruptcy or on the brink of bankruptcy. It is difficult for me to believe that these conditions result from regulation by the Commission when, during the same period, a substantial number of our railroads are reporting unprecedented profits.

It is also interesting to note that while the Commission goes on from year to year with the most conservative budget in government, other agencies of our government are spending more money in studying transportation problems than the Commission does in resolving them.

This is slightly tangential to my topic, but it does aggravate me to hear those persons well-learned and knowledgeable in the policies of our government, infer or imply that the Commission is the culprit holding back our transportation progress. I wish it were possible to do away with the Commission for only one year and have our carriers return to the "jungle warfare" and then ask those wise men where they are going to look for the next scapegoat to blame for many of their own misgivings.

### **The Power of the Commission**

Now, back to my topic of the Commission's role during periods of car shortages. Under the authority contained in the provisions of Paragraph 15, Section 1, Part 1, of the Act, the Commission is empowered to suspend the operations of any or all rules, regulations, or provisions then established with respect to car service for such time as may be determined by the Commission and to make just and reasonable decisions with respect to car service without regard to the ownership (as between carriers of locomotives, cars, and other vehicles) during such emergencies as in its opinion will best promote the service in the interest of the public and the commerce of the people. When the supply of freight cars is inadequate to fulfill the needs of the shippers, the Commission will exercise its emergency powers and issue orders which, in its opinion, are in the best interest of the shippers.

In September 1972, just after the announcement of the Russian wheat deal, the supply of boxcars and covered hoppers, which for many months before had been in surplus supply, became scarce and carriers were finding it difficult, if not impossible, to meet the demands of the shippers. In a few

weeks these shortages escalated into the worst shortage this country has ever suffered

### Orders Issued by the Commission

The Commission took immediate action by issuing many orders, orders requiring the expeditious handling of all traffic, including the requirement for consignees to remove all debris, dunnage, etc. from the car before it may be considered released. Let me just say a little about this provision. This is one problem that everyone talks about and no one does anything about. I refer specifically to the "dirty car." While the railroad is obligated to provide shippers with cars which are safe, suitable, and reasonably clean for the movement of their goods, the failure of the receiver to completely unload cars free of dunnage and debris, penalizes other shippers by making it impossible to reuse the car immediately for another loading and necessitates the railroads moving it to and from the cleaning tracks. Orders were also issued to decrease free time and increase demurrage charges so as to encourage prompt loading and unloading by shippers and receivers. Orders prohibiting misuse of cars in intraplant service; orders permitting the substitution of cars in ample supply for those in short supply without penalizing the user; orders to eliminate discrimination between big shippers and small shippers; and orders to assure better distribution of the available car supply (when orders of the industry failed to accomplish this) were also issued. All of these actions were taken with the thought of all shippers in mind and I am pleased to say that all of our orders served their purpose well, with many of them either being vacated or allowed to expire because of improved conditions.

I ask you, were these actions such that should subject the Commission to criticism? Were these actions issued to further the interests of a chosen few, or were these actions taken in the interest of all shippers?

Most shippers in the grain-producing areas of our country, those in the fertilizing industry and those engaged in shipping other commodities, can attest to the benefit they received from the actions taken by the Commission. Of course, it is recognized that during periods of such severe car shortages, some shippers are overlooked or neglected and, unfortunately, a few of these will immediately find fault with the role and work of the Commission.

In connection with the purpose of this Conference, the Commission's immediate problem is defining and enforcing the duties and responsibilities given the Commission by Congress to promote safe and adequate transportation, including the furnishing of suitable equipment for the transportation of food and food products.

In the past, the Commission has held, in many cases, that a carrier must furnish a car suitable for loading and supporting the commodity. It is evident that we must now go further and define just how suitable a car must be. Years ago, the Commission, in 34 ICC 60, held that :

"It is not unreasonable to expect shippers to do a limited amount of cleaning or to make minor and inexpensive repairs on cars for grain."

Yet in 5 ICC 87, it stated :

"A requirement that the shipper must clean and repair cars in order to put them in proper condition to be used for the shipment of flour is unreasonable."

In 21 ICC 539, the Commission held :

"If the car furnished is unfit, the shipper should reject it and call for another."

In B&O RR v. Hughes 278 F2 324, it was held that :

"It is the railroad's duty to see that cars placed on shipper's track for loading by shipper's employees are in reasonably safe condition for loading, and that duty requires that carriers make an inspection of the cars sufficient to disclose any patent defects."

The Commission has held in other cases before it that the cars furnished to a carrier's patron must be in good repair and in suitable condition for the transportation the carrier holds itself out to perform.

### **The Railroad Dilemma**

Our present day dilemma is assuring shippers of food and food products an adequate supply of suitable equipment for hauling our nation's food. The definition of "dilemma" is—any difficult or perplexing situation or problem. Believe me, this is a difficult and perplexing problem.

The Commission has recognized this problem and the need of finding solutions to it. In its order, under Ex Parte 241 served June 21, 1974, the Commission stated that Class 1 railroads as a group were found to lack an adequate supply of freight cars for performing their car service as common carriers. The Commission ordered to show cause, before 60 days from the service date of the order, why they should not be required to purchase additional equipment in the amounts set forth as deficiencies in general purpose freight cars in the order.

Further, the Commission in its Order Ex Parte 305 requires the carriers to allocate a large percentage of the ten percent rate increase given them to make capital improvements, including repairs and acquisition of freight cars.

The order also requires carriers to reduce their poor order ratio to five percent over a two-year period. The problem goes further, however.

We are now faced with the reality of specifying or designating freight cars for the sole purpose of transporting food and food products. This is not easy. Specialized equipment could, of course, be assigned to the food industry. This would take time and would also place a financial burden on the carriers that probably many carriers could not bear. Another solution would be the pooling of plain boxcars specially prepared and suitable for the transportation of food and food products. This is a more practical approach but one that would require the utmost cooperation among not only shippers but carriers as well to see that these cars were used only in the service for which they were classified. It is, in this sense, that we believe a proper beginning can be made at this Conference. We in the Commission stand ready, willing, and able, to assist and support this Conference in achieving its goal.

### Cooperation Is Essential

Time is of the essence—we know the problem—we must find the solution. The time for blaming each other is long past. Cooperation among government agencies is essential. The responsibility in the various aspects must be placed in the proper agency or agencies with rules, regulations, and requirements that such agency can reasonably administer. The food industry must also face reality and not expect the carriers to give high class service at low class rates.

I reiterate, we in the Commission recognize the importance of this problem and feel that federal leadership is needed. We stand ready to do our part.

Before closing, I do want to convey to you the Commission's interest in the objective of this Conference and to assure you of our intent to assist in any way we possibly can, in order to assure the consuming public of not only orderly and reliable rail transportation, but also safe transportation. The Commission, in the past few years, has taken actions and made recommendations to Congress that are drastic departures from positions this Commission has espoused in the past. Therefore, we do want to take an active part in establishing rules, regulations, and practices (whether under our domain or not) that will enhance safety in the transportation of food and food products by our nation's transportation system. [The End]



# Railroad Car Sanitation— A USDA Perspective

By ERVIN L. PETERSON

Mr. Peterson is an Administrator of the Agricultural Marketing Service in the U. S. Department of Agriculture.

**T**HE UNITED STATES Department of Agriculture has broad and wide-ranging interests in our Nation's food system. That system interconnects with the world food system in that the United States is both a substantial importer of various foods, as well as one of the world's exporters of foods, largely food and feed grains in their raw state. It should be noted that international trade in processed foods, or foods in their finished state, is growing. I would anticipate its continued growth.

## The Agricultural Marketing Act

Whether food moves from farm to processing plant, and thence in domestic or foreign commerce, it requires transport. Under the terms of the Agricultural Marketing Act of 1946, as amended, the Secretary of Agriculture is directed and authorized to engage in a wide spectrum of activities relating directly or indirectly to the transport of food and foodstuffs, including specific authority "to assist in improving transportation services and facilities."

As a consequence of the Department's broad interests in production, processing, and distribution of food, both domestically and internationally, and because of statutory responsibilities covering all aspects of these activities, we were glad to respond affirmatively to the invitation to participate in this conference on railroad car sanitation. As Administrator of the Department's Agricultural Marketing Service, perhaps I reflect a personal bias when I view food transport as an integral part of the marketing process. However that may

be, I am glad to join with you to consider a subject which commands the attention of all of us with responsibilities in the food field—whether those responsibilities rest upon us as a consequence of belonging to either public or private organizations.

I believe the food manufacturer needing to ship his products and the managers of the rail carriers both desire that food be clean and wholesome, and fully protected from adulteration, contamination, or infestation of any kind, including such protection during the course of transport by rail carriers.

### **Sanitation—A Complex Issue**

It seems to me the matter of rail car sanitation is a complex one. In the first place, there are many kinds of foods to be transported by rail. Some are in bulk; some are in consumer-size packages packed in cases or boxes; some are in raw form to be consumed in that form; others are in raw form to be either further processed or cooked at point of use, such as fruits and vegetables; others may be in liquid form, varying all the way from liquid sugar, liquid fats and oils, milk, and chemicals used in food processing; others may be processed but moved in bulk; others in free-flowing hopper cars, and so on. Similarly, there is a considerable variety of rail cars—the conventional boxcar, refrigerated cars, open hopper cars, closed hopper cars, tank cars, and a number of other designations. Not all of these cars carry food all the time. Many of them carry other products or commodities, any quantity of which commingled with a food may render it contaminated, adulterated, or even hazardous. However, if properly cleaned and sanitized, the equipment is presumably fully suitable for carrying food subsequent to having carried other substances, some of which may indeed be hazardous if incorporated in any degree into a food or a product to be used as a food.

All of this would seem to generate at least two questions, and perhaps many more. Are the rail cars currently in use for the transport of a wide variety of foods, or foodstuffs, in all their myriad of forms, and also used for the transport of other products, so designed as to permit them to be adequately cleaned and sanitized prior to each use for the transport of food? Who is responsible for the cleaning and sanitizing of cars before they are loaded with the food to be transported—the rail carrier, who supplies the car, or the shipper who uses it?

## Competitive Market Slows Progress

The carrier seeks the maximum of efficiency in utilization of its rolling stock. A car is unloaded in town A where the carrier has orders for cars from shippers of food, or foodstuffs. It may well be at that particular point the carrier has no readily available means for cleaning and sanitizing the car. Similarly, if the shipper happens to be a country packer of fruits or vegetables, it is unlikely that such packer has facilities for car cleaning and sanitization. It may be that the car had just unloaded substances which if incorporated in or on any food would render it hazardous. The food shipper ordering the car may have no knowledge of what its previous loading was, so would not know what degree of cleaning and sanitization was necessary to make it suitable for the intended food shipment. Regardless of who is to do the cleaning and sanitizing, there is a cost to be incurred. The concern shipping the food is usually dealing in a highly competitive marketing situation. The rail carrier is subject to a myriad of procedures before it can incorporate in its invoice charges for car cleaning and sanitation. So what is a practical answer to assuring that rail cars used for food transport are clean and sanitary, and do not subject the food being transported to contamination, infestation, or adulteration?

## Identifying the Problems

In a conference of this kind it is not likely that answers to the many questions we can raise will be provided. If, however, the questions we raise accurately reflect existing conditions, and those conditions demonstrate that a problem exists, as evidently it does, then it may be that our deliberations will be most effective if we are able to suggest ways and means and participants for addressing those specific problems which we can here identify. It would seem to me that one area involves the general question of who has the responsibility to do what? Who is responsible for the design and construction of cars to carry foodstuffs? Who is responsible for cleaning and sanitizing cars before foodstuffs are loaded into them? Are there minimum packaging requirements for foods moving in crated or packaged form, which should be followed by shippers? What procedures should be followed by the carriers and/or the shippers with respect to the use of cars for handling bulk commodities? If a car has carried a dangerous or contaminating substance, should it be subsequently used for the transport of food under any condition? If a car presently in use is

so designed and constructed that it cannot be properly cleaned and sanitized, should it be used for the transport of food at all? Who is to determine whether cars can be properly cleaned or sanitized? Should each car carry within it a logbook showing what its most recent carriage was; that is, what product was last in it, and was that product such as to constitute a potential hazard to the food product intended now to be carried in the car?

It is known from experience that some types of cars are more susceptible to being infested with insects than are others. It is known that some products have odors which will be absorbed by some foods to their detriment. It is known that some chemicals, if spilled, can leave residues which constitute potential hazards to foods. Such commodities in dry bulk form, if carried in some types of cars, would likely make those cars completely unsuitable for subsequently carrying bulk food, and perhaps crated or sacked foodstuffs as well.

### Safety of Our Food Supply

A question which seems to emerge is whether or not all cars adapted for the carriage of any food should be used interchangeably for the carriage of all types of commodities for which they may be suited, irrespective of whether or not those commodities are such as to constitute a hazard to foods if they come in contact with the food. Most of our food groups in this country are organized into associations of one kind or another. All of them are concerned with the transport of food. No doubt most of them could quickly identify problems they have encountered in the use of rail cars for food transport. Have the identified problems been accumulated by any public body or otherwise to provide dimensions for the problems this conference seeks to address? It would seem appropriate if this has not been done that steps be taken to organize a combination of public/private effort to establish the parameters of the problems we are attempting to address, identify what those problems are, and to endeavor to assess responsibility for their resolution. We in the Department of Agriculture would welcome the opportunity to make whatever contribution possible toward adding further assurance to the safety of our food supplies by assisting in the development of ways and means to prevent contamination, adulteration, or infestation as a result of food shipments by rail car. [The End]





# The Role of State Regulatory Agencies in Railroad Car Sanitation

By NORMAN E. KIRSCHBAUM

Mr. Kirschbaum is Administrator of the Food and Standards Division in the Wisconsin Department of Agriculture.

**T**RANSPORTATION OF FOOD has grown to become a major industry in this country. As with any new or developing industry, productivity and economics have been given priority, with little or no attention being given to the matter of protecting the integrity, safety and sanitary quality of foods, drugs and allied products while in transit. At the same time, regulatory officials, both state and federal, have given high priority to inspection of the production, processing, warehousing and retail operations, while little, if any, attention was given to the actual or potential adulteration hazards that existed in the food transportation industry.

## Committee Appointed to Study Sanitation

Several years ago, the Association of Food and Drug Officials (AFDO) became concerned with the increasing number of incidents brought to the attention of regulatory officials and industry, involving in-transit adulteration of food. Faced with these facts, a special study committee was appointed by AFDO. The charge to this committee was to conduct a preliminary survey to assess the nature and extent of food contamination hazards associated with: (1) rodent- and insect-infested trucks, rail cars, and vessels; (2) commingled shipments of food with incompatible materials; (3) inadequate or improper cleaning of transport conveyances; (4) improper loading, handling, or packaging; and (5) refrigeration abuses in handling and

shipment of perishable commodities. Based on the information obtained in this study, the committee was also requested to recommend to the Executive Board of AFDO whether a model ordinance or regulation directed at the problems disclosed should be developed.

Without going into all of the details of the study, 276 separate incidents of in-transit food contamination were investigated by the committee. As may be expected, the information collected and reviewed represented after-the-fact investigations of incidents brought to the attention of local, state and federal regulatory officials. The committee readily admitted that the evaluation of only 276 incidents was a small sample to use in arriving at any statistically valid conclusion about the nature or extent of in-transit contamination of food. However, some interesting observations were made.

With respect to vehicle type, 200 (72.5%) of the incidents involved rail cars, 65 (23.5%) involved trucks, and 11 (4.0%) involved vessels. Rodent- and insect-infested vehicles were identified as the contributing circumstance in 182 (66%) of the incidents studied, all but three of which involved rail cars. The committee felt there was probably a direct correlation between this observation and the lack of adequate inspection and/or cleaning of rail cars prior to loading.

Insect filth was by far the major type of contaminant involved, again, almost exclusively in rail car incidents. In over 70 percent of the cases, the commodity involved was a packaged raw food commodity (as opposed to unpacked bulk shipments), primarily bagged cereal products. Most of these were shipped by rail and were associated with insect contamination.

The committee was also given a report by one large cereal product processor summarizing its experience with boxcars offered by the railroads for loading. During the calendar year 1969, a total of 848 boxcars were rejected by 9 processing plants because of insanitary conditions. Major reasons given for rejection were: (1) garbage and debris; (2) offensive odors; (3) chemicals and foreign material, including soot, sand, oil, glass, cement, granular and powdered chemicals, and other incompatible materials; and (4) rodent and insect infestation. Many of the cars rejected primarily for debris and garbage were also vermin infested. The firm reports that their studies (as well as those of others) indicate that many cars accepted for loading are subsequently found to have infestation hidden behind the end and side liners. An interesting observation made by the committee from the data obtained from this study was that the

commingling of incompatible materials was the causative factor in 47 of the cases studied, the majority of which involved trucks. In 38 of these incidents, the contaminant was found to be a pesticide or an industrial chemical of some type. This type of contaminant may have more public health significance than rodent and insect filth.

### Causes of the Sanitation Problems

However, in terms of volume of products involved, the problems associated with multipurpose rail cars appear to be of major importance. The conclusions drawn from this study by the committee were that in-transit adulteration of food, drugs and allied products does represent a real health hazard to consumers and is responsible for a substantial economic loss to both the food processing and transportation industries. The basic underlying causes of the problem, though not fully defined, are suggested to be as follows:

(1) A general failure on the part of the transportation industry to fully recognize or assume their share of responsibility for protecting the safety, wholesomeness, and integrity of food in transit, and to provide suitable vehicles for this purpose;

(2) In some instances, failure on the part of the shipper to inspect food conveyances prior to loading, and to upgrade or reject those found unfit for this purpose;

(3) A chronic shortage of suitable vehicles for transporting food, especially rail cars;

(4) The absence of meaningful, uniform government (or industry) guidelines, which set forth acceptable standards for vehicle construction, sanitation, handling, and loading practices; and

(5) The inability or failure of regulatory officials to program more surveillance time into food transportation and storage facilities under existing legal authority and agency priorities.

As indicated earlier, this committee was also requested to submit a recommendation to the Executive Board for an action program. As a result of this study, the committee recommended and the Executive Board did establish an *ad hoc* committee consisting of state, federal and associate members to draft proposed good transportation practices regulations. A model regulation was developed, and adopted by AFDO in 1972.

As alluded to earlier, few if any states have programs designed to check on foods in transit. However, this does not mean that the states do not have the statutory authority to initiate such programs.

Approximately 40 states have laws basically uniform with the model Food, Drug and Cosmetic Act. The model act, and state laws adopted in conformity with it, provides for the inspection authority of foods in transit. The definition of adulterated food is also basically uniform between states and with the federal act. Other key provisions include authority for the seizure or embargo of the product, prosecution and injunction, and also for the adoption of federal regulations.

Some states have departments of transportation that are responsible for regulating intrastate carriers. AFDO believes that more control of intrastate carriers is necessary and that this control must be uniform with federal requirements for interstate carriers.

In spite of the fact that most states have adequate statutory authority, current programs are limited primarily to investigating complaints and inspection of conveyances owned or operated by the food establishments. In addition, little coordination currently exists between state food control and transportation officials.

### **Cooperative Efforts Imperative**

The problems, as seen by AFDO, are basically the same as those outlined and presented by other speakers. AFDO is convinced that problems of this magnitude cannot be resolved on an individual state basis. We further believe that these problems can best be resolved through the cooperative efforts of all affected parties, both in industry and in government. This effort must include giving more attention to the improved construction of rail cars, and more self-inspection by shipper and receiver. Initially, a program of voluntary compliance is proposed. Success of such a program will require the adoption of Good Transportation Practices Guidelines.

Where voluntary compliance is not achieved, regulatory action will be necessary. Consequently, AFDO feels it is essential that Good Transportation Practices Regulations be adopted by the federal government, and that FDA is the logical federal agency to assume this responsibility. As noted earlier, AFDO has developed and adopted a model Good Transportation Practices Regulation which may be used as a starting point.

As soon as the federal government has assumed the initiative by promulgating these regulations, AFDO is willing to act as a catalyst in encouraging individual states to adopt their own Good Transportation Practices Regulations and to initiate state surveillance programs.

**[The End]**

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