The Department of Food Science

North Carolina State University



Presents
A Slide Script

GETTING YOUR BOD IN SHAPE

A Program in Dry Clean-up Methods for Cookie and Cracker Manufacturers

> Author: Roy E. Carawan Editorial: Liz Blum

Copyright, North Carolina State University, 1989

All Rights Reserved

FILE: BAHLSEN.DOC DISK: LIZ #12 UPDATE: 06/20/89

SLIDE SCRIPT FOR BAHLSEN EMPLOYEE TRAINING PROGRAM GETTING YOUR BOD IN SHAPE

SLIDE	AUDIO
BANK OR DRAIN	THEME UP FULL
TITLE PAGE GRAPHIC #1	
GRAPHIC #2	THEME UNDER ANNOUNCER: Getting your BOD In Shapea presentation of dry clean-up in cookie and cracker manufacturing Getting your bod in shapeno, this isn't a physical fitness program. We're talking about our plant's bod or rather B-O-D. In this case, the letters B-O-D stand for biochemical oxygen demand and its excess weight is a health hazard for our water.
PRETTY OUTDOOR SCENE	Everyone likes to be outdoors and many of us fish or huntand we all want our water to be clean. Most of the time we don't think about it; we take for granted that our water is clean, environmentally safe and drinkable.
WATER TAP WITH CLEAN GLASS OF WATER	But the waste from our plant is a direct threat to our safe and clean water sources. And it's a threat that only you can help prevent.
NASTY WATER SCENE	I'm sure you've seen scenes just like this on the six o'clock news. Oil spills, plant discharges and other environmental hazards are polluting our water daily. While the waste from our plant may not seem all that bad, that waste is eating away at our clean water supply. Unless it's stoppedhere and at other sources of pollution,
PEOPLE LINED UP AT WATER TAP WITH BUCKETS	sometime, in the very near future, we might see water rationing, much like we saw gas rationing in the mid-seventies.

FILE: BAHLSEN.DOC

DISK: LIZ #12 UPDATE: 06/20/89

PRODUCTION FLOW CHART

Now that you know what this waste can do when it gets into our water supply, you may wonder...how does it get there? Well, during our production and clean-up, peanut butter, ingredients, cracker bits and dough fall on the floors. In the past, we just hosed this waste into the drains.

SEWAGE FLOW CHART (INSERT *P/T SLIDES HERE?) The drain carries this water and waste to our pretreatment system where some, but not all, of the waste is removed. This wastewater is then pumped to Cary's sewage treatment plant where the water is cleaned up and made usable again. But both systems can only operate at a certain capacity. The Cary system can't handle all the waste unless we get some of it up first. If too much waste comes from one place; let's say, our plant; the Cary sewage plant is forced to put restrictions on water use and waste loads.

BAHLSEN PLANT

So, let's get back to our plant's B-O-D or biochemical oxygen demand and find out what that has to do with waste and pollution. First, B-O-D is a measure commonly used to determine the amount of waste in water.

BOD DEFINED

In fact, B-O-D is the one the Cary sewage treatment plant uses to see how much our wastewater "weighs." If it is over a certain limit, our plant has to pay surcharges that can run into thousands of dollars a month.

FILE: BAHLSEN.DOC DISK: LIZ #12 UPDATE: 06/20/89

WASTE BILLS

That means big water and sewer bills for our plant. But that's not your problem, right? Wrong. If our plant's waste remains high and demands too much water, the bills for our plant will be high, too.

DOLLAR BILL WITH WINGS

For example, at one time in our recent past we have paid surcharges averaging \$7,000 per month for excessive BOD. This extra cost just to clean our water affects all of us. \$7,000 per month could have added up to increases in pay and benefits for all of us rather than letting that money be literally hosed into the drain.

GRAPHIC #3 (BILLFOLD OR POCKETBOOK)

So when costs are excessive or more than we have planned, it hurts all of us where it counts..in the pocketbook!

FLOOR MESS

Still not convinced it's your problem? Well, waste begins with you, on your line; not somewhere else in the plant. Just as a few cookies or some ice cream can put inches on your body, this "bod's" weight is created by the small things, too.

DOUGH ON THE FLOOR

For example, just one pound of ingredients down the drain makes almost a half pound of B-O-D in your water.

GRAPHIC #4 (1 # = 1/2 # BOD)

So, the key to getting in shape is to stop B-O-D at its source by using dry clean-up practices. The waste you recover with these methods not only helps eliminate pollution but the materials that are collected can be used.

HOG FOOD CONTAINER

You see, the waste you pick up isn't really waste; it's lost product. Animal food manufacturers have found that the ingredients and dough lost in our plant during production could be a great source for pet food. So, what you pick up could be put to good use. What you call waste, animals call dinner.

PIGS "WE LOVE IT!"

Hog farmers have found your waste makes good hog feed. You could make some pigs very happy with what you pick up. So...

FILE: BAHLSEN.DOC

DISK: LIZ #12 UPDATE: 06/20/89

"KEEP THE STUFF...

Be a BOD Buster. "Keep the stuff off the floors and out of the drains."

"BOD BUSTER LOGO" Get in shape; start training to be a BOD Buster. Begin by using common sense. That's all dry cleanup really is.

SLIDES FROM DAVE?

If stuff falls on the floor or on a machine, pick it up, brush it up, vacuum it up; don't let it get hosed into the drain.

WASTE CONTAINERS

Put what you collect into proper waste containers. These containers will be sent to various animal food recycling sources or to approved disposal sites.

MAN WITH BROOM OR SLIDE FROM PREWEIGH ROOM Here are some dry clean-up methods: use a stiff broom to loosen and sweep up ingredients from the floor.

ARM WITH SQUEEGEE

Use a squeegee to clean spilled batter of the floor and into a pan.

BRUSH & BUCKET (PETERS SLIDE?)

Use dry clean-up utensils like brushes, buckets and vacuums to collect leftover crumbs from the machines before they're hosed down. Keep these dry clean-up tools separate from your wet clean-up gear and make sure they're sanitized properly.

DRAIN BASKETS, COVERS, FLOOR DRAINS Also, make sure drain baskets and covers are over drains so they can catch what you don't. Make sure they're in good shape, doing their job properly and aren't clogged.

CLEAN WORK AREA, SHOW ASSOCIATE ON CRACKERS AROUND PETERS MACHINE OR ON CATWALK Keep your work area neat and clean; not only will this cut down on waste, it'll make your working conditions more pleasant. FILE: BAHLSEN.DOC

DISK: LIZ #12 UPDATE: 06/20/89

LINE AREA SHOT

Sweep the floor in your area periodically to get up any crumbs, flour, batter or peanut butter that's fallen on the floor. Watch for loose bolts to make sure nothing is squeezing out of the machines in the wrong place. Make sure all trays and tubs are emptied as needed. Watch your aim when pulling off the line and make sure that it goes in the trays...not on the floor.

AIR HOSE

Make sure that air hoses are cut off when not in use; don't let them run continuously.

GET IN THE HABIT

As we have shown, the major part of getting your BOD in shape and cutting down on water use in our plant is a few simple changes in old habits. So, start now to break old habits and begin the efficient new ones.

KEEP THE STUFF...

The key phrase: Keep the stuff off the floors and out of the drains. Here are the key points of dry clean-up:

LIST OF DRY CLEAN-UP Use a broom to loosen and sweep ingredients off the floor. Squeegee spilled dough off the floor into a dustpan. Empty dough tanks into hog food containers. Put trays and pans under machines, table and conveyor lines to catch loose crumbs, dough and peanut butter from falling on the floor.

2ND LIST

Collect all leftover ingredients from machines by hand or with a brush and a pan after your shift and before using an air hose. Keep the drain baskets and covers over drains and keep them clean and in good working order. Some physical fitness for your bod and our plant's B-O-D...bending and scraping are the only ways to recover waste from underneath machines befor hosing. Keep an eye out for drips, wornout equipment, loose bolts and other waste producers in your area.

PLANT SPECIFIC SLIDES?

Reduce water use by using it wisely and efficiently. If you're not using water, cut it off. Keep your work area neat and clean for less waste and better working conditions. If it's clean, neat and dry, you're well on the way to being a BOD Buster in your work area.

FILE: BAHLSEN DOC

UPDATE: 06/20/89 DISK: LIZ #12

PRETTY OUTDOOR

SCENE

Your efforts will let us see more scenes like this...

NASTY OUTDOOR

SCENE

And fewer like this...To coin an old phrase...

OCEAN SCENE

Health is wealth. Keeping our plant's B-O-D in shape will insure the fitness of our water and environment today -- for us -- and tomorrow for our children.

CREDITS

"Getting Your BOD In Shape" a training program in dry clean-up for breaded foods plants...This has been a presentation from North Carolina State University Department of Food Science in cooperation with the North Carolina Agricultural Extension Service...helping people put knowledge to

work...supported by Bahlsen, Inc. through a Challenge Grant sponsored by the North Carolina Department of Natural Resources and Community Development and their Pollution Prevention Program. Copyright, N.C. State University, 1989. All rights reserved. Author: Roy E. Carawan. Editor/Narrator:

Liz Blum.

SUPPLEMENTARY SET

OIL SPRAYERS

Close the doors after cleaning the oil sprayers. Remember to keep the drip pans under the bottom

DRIP PANS

so that oil doesn't go on the floor.

OUTSIDE SHOT

Systems for removing excess oil

OVERVIEW

Overview of new line