BFGoodrich **INTER-ORGANIZATION CORRESPONDENCE**

TO	FIELD POINT OR DEPT. & BLDG. NO.	DATE YOUR LETTER
Jerry Popiel	418/5059	
FROM	**FIELD POINT OR DEPT. & BLDG. NO.**	**DATE THIS LETTER**
Bryan Kazmer	416/5059	2/27/90

SUBJECT

1989 Safety Audit Response

Many of the items identified in the 1989 Safety Audit have been or are being addressed, including those pertaining to Building 426. One item which still needs to be addressed is 1989-6-2, the possible need for a means of conveying the Banbury dump to the mill.

Please designate someone from your group to lead a small group (need input from Safety, Engineering, and possibly ALGC F-line manufacturing) in resolving this issue.

Post + File

Bryan Kazmer

Attachment

cc: J. P. Griffin
H. Waltemate
R. F. Kissling
R. T. Krebs
C. A. Daniels
S. Alten

[MAW.MSC]1989SAFETYAUDITBMKLOC.NCS

NGC 13018

BFG-4958-NV 7/86 LITHO IN U.S.A.

BFGoodrich INTER-ORGANIZATION CORRESPONDENCE

TO	FIELD POINT OR DEPT. & BLDG. NO.	DATE YOUR LETTER
H.Waltemate	OTB	
FROM	**FIELD POINT OR DEPT. & BLDG. NO.**	**DATE THIS LETTER**
J.P.Griffin	ALTC B/418	02-05-90

SUBJECT

1989 SAFETY AUDIT RESPONSE

Attached please find the ALTC response for the 1989 Safety Audit. You will note a significant number of items in-progress. To keep you informed of our activities, I will provide you with a bi-monthly progress report.

Herm, I'd like to take this opportunity to thank you for the assistance you provide in implementing a quality safety program. The activities that have been generated as a result of the audit will have a significant impact on the performance of our facility.

Jim
J.P.Griffin

[redacted]

cc: R.T.Krebs
R.F.Kissling
C.N.Bush - OTB
R.J.Grahek - OTB
S.C.Alten

NGC 13019

AVON LAKE TECHNICAL CENTER
SAFETY AUDIT
OCTOBER 16-20, 1989

II. Items to be Corrected

1989-1. A Facility Director's Safety and Health Policy needs to be developed and issued with R.T.Krebs' signature. It should be a clear and specific statement which expresses the Technical Center's management's commitment and beliefs. The policy statement should be reviewed with each member of supervision, and in turn, with all direct employees. The policy should be a living document used by management and supervision when making decisions. Management and supervision must demonstrate that their commitment to the policy is ongoing. Management must recognize that dedications to the Safety and Health program on a daily basis is required. I have attached the policies from the BFG Louisville and Deer Park plants. You may wish to use them as an example. I have also attached an article from the Professional Safety Journal which gives suggestions on developing a safety policy and using it.

Please send me a copy of the Avon Lake Technical Center's Safety Policy when it is finalized.

Response

Policy completed and attached with the appropriate reviews in progress.

Status

____Completed
_X__In-Progress
____Incomplete

1989-2. The BFG Chemical Division Safety Team Leaders have established a new requirement involving "Hot Work". Safety Standard SA-123 Hot Work Permit has been revised accordingly. Continuous LEL monitoring is to be provided with all open flame (welding, cutting, grinding) in hazardous locations.

You need to purchase instruments to conduct this monitoring and incorporate this requirement into your plant safety procedure SAF G-6800 Hot Work permits and procedures.

Response

Complete

Status	
X	Completed
	In-Progress
	Incomplete

1989-3. I would recommend that a Job Safety Analysis be conducted on the unloading, moving and storage of the one-ton chlorine cylinders. The loss of the contents could have a serious impact on the local community. Currently you use a fork lift for unloading, store the cylinders on a pad and move them with a hand truck when you use them.

BFG Safety Standard SA-104 IV (3)(a) requires that one-ton cylinders be stored in a cradle. You should follow this BFG Safety Standard and the Chlorine Institute Manual for the safe handling of one-ton cylinders.

Response

A Corrective Action Team was organized. Minutes were distributed to H.Waltemate. "Cylinder Cradles" or trunnions have been ordered with a projected 3/1/90 installation date.

Status	
	Completed
X	In-Progress
	Incomplete

1989-4. You need to continue to conduct Process Hazard Analysis. Please send me a quarterly status report on PHA's completed and the actions taken with the resulting recommendations.

Response

In Progress with two hazard and operability studies complete and all pilot plant operation preliminary hazard analysis complete. Reports have been submitted to H. Waltemate.

Status
X Completed
_____In-Progress
_____Incomplete

1989-5. A management system, which assures that corrective action is completed, needs to be established for the Technical Center. You should track such items as narrative report corrective actions, Safety Audit Items to be corrected, Industrial Hygiene recommendations, and Internal OSHA Compliance Inspections.

Response

A system for narrative report corrective items and a monthly follow-up is in place.

An arrangement system for audit and inspecting items will be implemented after the Hygiene report is received.

Status
_____Completed
X In-Progress
_____Incomplete

1989-6. During the plant inspection, I observed five situations which have a high potential for a back strain or a shoulder strain. You should study each of these situations and review the plant for other similar potentials.

1) The floor surface in the CPVC area B/414, where the large drying cart is moved, is extremely rough.

2) In the Extruder Building, a 45-pound lump of mixed material is taken at floor level from the bottom of the mixer, picked up onto a platform and then onto the mill rolls. If this mill is being used as a production mill, a conveying system should be installed.

3) In the CPVC area B/414, the addition of bags of Soda Ash from a portable platform is not a good arrangement. A fixed platform with adequate room and better access for dumping bags is needed.

4) Several years ago, a study in the BFG Chemical Group found that a large number of our shoulder strains and back strains involved bags which weighed in excess of 55 pounds. A BFG Chemical Division Safety Standard has been drafted establishing lifting requirements. During the facility inspection, some 80-100 pound bags of raw material were noted. You should set up a requirement with your Purchasing Dept. that limits the weight on bags of raw material.

5) The portable ramp to the Drum House needs to be replaced with a fixed ramp. It would be very easy for an injury to occur, if this ramp would shift while moving a drum on it.

Response

1) 2nd floor is complete. 1st floor is scheduled for 2nd quarter 1990.

2) This has been reviewed with the operating area. Design is yet to be completed.

3) Design complete with installation date of 4/1/90.

4) Complete.

5) Complete

Status
____Completed
_X_In-Progress
____Incomplete

1989-7. We were told that approximately 50% of the maintenance work performed in B/414 and B/422 does not require a "Work Permit". These jobs usually involve capital projects. This seems to be excessive and should be reviewed from a safety standpoint. The requirements established in ALTC SAF G-5700 Maintenance Work Order and SAF G-5800 Work Permit should be evaluated.

Response

Status
____Completed
____In-Progress
X Incomplete

1989-8. The Catalyst Storage in the Bunker Area needs to be upgraded. A BFG Chemical Division Safety Standard has been drafted setting minimum requirements and will be issued soon. You will need to make the following modifications:

a) Dual temperature transmitters.

b) Remote Temperature Recorder.

c) Temperature alarm in a constant attendance area.

d) Backup freezer capacity in reserve.

e) An emergency CO_2 system instead of dry ice.

You should review this draft standard and make the required revisions to your catalyst storage.

Response

a/b/c This has been assigned on maintenance work order to record on the process computer.

d/e An AR request has been written with an engineer assigned to this project.

Status
____Completed
X In-Progress
____Incomplete

1989-9. During our facility inspection, we observed an employee standing improperly on a stepladder. I was told that the Environmental Audit Team also observed similar situations involving ladders.

It is recommended that you train your employees on the proper use of ladders and enforce the safety requirements.

Response

Training complete & documented.

Status
X Completed
In-Progress
Incomplete

1989-10. There is a concern with the proper storage and use of compressed gas cylinders at ALTC. Several Cylinders were observed with a loose single chain which was not sufficiently securing the cylinders. You may need to modify your storage areas and provide adequate devices for securing of the cylinders.

There was also a concern with the compressed gas cylinders utilized with the Smoke Lab. Several cylinders were being used and stored inside a closet. Some of the cylinders were not properly secured and oxygen cylinders were not stored separately. I also have a concern with the number of flammable cylinders inside this closet inside a building.

ALTC SAF G-5500 Compressed Gas Cylinders is a well prepared safety policy but compliance with it is lacking.

You should take the indicated corrective action.

Response

A) The cylinders in question were removed.

B) The storage areas were audited and several work orders were generated.

C) This policy was reviewed by the Monitor's Group.

Status
X Completed
In-Progress
Incomplete

1989-11. Areas in which combustible dusts are handled are to be classified Class II, Group G, Division 2. The electrical equipment in these areas should be dust tight with a NEMA 4 or NEMA 12 rating. Electrical motors should be TEFC or TENV.

The Compound Recipe Make-Up Room should be classified Class II and the electrical equipment should be changed accordingly.

You should also not permit open bags of material to be stored in the area. The bags should be resealed or placed in a container.

Response

This area was audited by Bob Reitz and Fred Kohler. The audit reports were distributed to H. Waltemate. A Class II designation was not required. Although improved ventilation & bag handling were evident, an AR has been generated to upgrade dust capture and the practice of material storage in open bags has been discontinued.

Storage
X Completed
_____ In-Progress
_____ Incomplete

1989-12. It was observed in the Extruder Building that 30 psi air is commonly used for cleaning. Blowing dust with air is an ineffective method of cleaning. I would recommend that a central vacuum system be provided and the use of air be restricted.

Response

At present we are using four portable units for dust collection. Design work is in progress for a central system.
As to air being restricted, the Operations personnel feel that some compressed air usage is still required for equipment cleaning.

Status
_____ Completed
X In-Progress
_____ Incomplete

1989-13. Buildings 422 and 417 contain a great deal of equipment which is no longer used. You need to develop a management system which removes equipment that is obsolete. This should be done on a regular basis and not just a "one time push".

Response

We successfully removed 3500+ sq. ft. of equipment. Similar efforts in B/414 and B/417 are delayed. B/422 will be evaluated annually during the manager's safety audit.

Status
Completed
X In-Progress
Incomplete

1989-14. The BFG Chemical Division's Safety Team Leaders have reviewed our history with regard to foot injuries and have decided that a 100% Safety Shoe Program is needed. You should proceed with implementing this requirement. It will include all BFG employees and contract employees who work in the plant and laboratories. It will not include individuals who are just touring the facility.

Response

Draft policy has been completed by a task force of ALGC, BRDC, and ALTC personnel.
Policy implementation is scheduled for 4/1/90.

Status
Completed
X In-Progress
Incomplete

1989-15. There is a confusion in the Technical Center with the requirements for grounding/bonding and providing self-closing valves on drums. These are required for flammable and combustible materials but they are not required with non-flammable or non-combustible materials. You should prepare a Safety Policy which covers this area and follow this policy.

During the facility inspection, several safety containers were observed in which the flame arrestor had been removed. These safety containers were being used for the collection of scrap material. It is not acceptable to remove the flame arrestor. If the flame arrestor becomes plugged, it should be replaced.

Response

All flammable drum dispensing stations have been audited and the proper grounding and valves have been provided. A draft policy has been written with a 3/1/90 implementation date.

At present we continue to use UL approved flammable material handling containers without arrestors. These are only used for viscos materials where an alternative container cannot be specified.

Status
Completed
X In-Progress
Incomplete

1989-16. You need to review your existing procedures to verify that they cover the requirements of 1910.120 HAZWOPER (q) Emergency Response to Hazardous Substance Releases. You should also be sure you document the training given to comply with this standard.

The emergency response procedure needs to cover the following:

(i) Pre-emergency planning and coordination with outside parties.

(ii) Personnel roles, lines of authority, training, and communication.

(iii) Emergency recognition and prevention.

(iv) Safe distances and places of refuse.

(v) Site security and control.

(vi) Evacuation routes and procedures.

(vii) Decontamination.

(viii) Emergency medical treatment and first aid.

(ix) Emergency alerting and response procedures.

(x) Critique of response and follow-up.

(xi) PPE and Emergency equipment.

(xii) Emergency response organizations may use the local emergency response plan.

Response

Our emergency response procedure is complete. Sections 1,2,5,7, need to be further developed. Quarterly training is established for our hazard material team. This training time will be used to upgrade sections 1,2,5,7.

Status
Completed
X In-Progress
Incomplete

1989-17. ALTC SAF G-6100 Safety Policy sets requirements for the use of AM/FM radios. Several areas in the Technical Center are not aware of this policy and have not gotten the radio approved by the Safety Department. You should review this policy to determine if the requirements are still valid and in turn comply with the policy.

Response

We have established a review group for ALTC safety policies. This group has updated (6) policies since 12/15/89. SAF G-6100 will be reviewed by 2/15/90.

Status
____Completed
__X__In-Progress
_____Incomplete

1989-18. There are 4 Industrial Hygiene situations that you should address and resolve before the Industrial Hygiene Audit scheduled for 1990.

(i) Proper storage needs to be provided for personnel protective equipment. Respirators were noted hanging on process equipment. Also, respirators were noted hanging by the straps and causing the headbands to stretch.

(ii) Eating in areas where chemicals are being handled.

(iii) Gasket material being purchased which contain asbestos.

(iv) Insufficient labeling of process tanks, drums, and containers.

Response

I. A "Respirator Users" inventory has been developed. Storage areas have been audited for compliance. Significant improvement was noted.

II. To be reviewed by Hygiene Audit Team.

III. Complete.

IV. To be reviewed by Hygiene Audit Team.

Status
____Completed
__X__In-Progress
_____Incomplete

1989-19. (continued)

I have attached 1 7-page list of OSHA violations which might be found in a chemical industry operation. You should use this list and the specific items pointed out during the audit to conduct a complete and thorough inspection of the Technical Center. Each of the violations should be corrected.

Response

32 of 35 audit items complete.

1910.106(9) (Flame arrestors removed from UL Safety Can)
Has no action due to our inability to find a suitable container for viscos flammables.

1910.219(C)(3) (Guard needed on agitator shaft). This agitator shaft is very small which does not allow installation of a proper guard.

1910.120(F) (Labeling of drums, bags, and bottles). In Progress. Several labs complete. Policy drafted.

Audits are scheduled in March 1990 using the OSHA violations list. The results of this audit will be included in the tracking system as noted in audit item 5.

Jim Griffin

JPG:drf
SaAuResp.jpg

To: Distribution

From: J. C. Carr 10/25/89

PHAs and Equipment Removal in Process Buildings

I wanted to pass the following information to you that was discussed during our recent Safety Audit.

I. Process Building Equipment Removal

Equipment removal is proceeding more rapidly than we could have hoped for in Bldg. 422. 1,500 square feet of space (3 bays) have been cleared in the last week, and by the end of next week we should complete another 1,000 square feet.

Another positive note, I have continued negotiations with the line groups and have tenative agreement on another 1,000 square feet of equipment that has no future planned use.

As I mentioned during the Audit, I identified approx. 1,750 square feet of " Dead " equipment for removal from Bldg. 414, received line group agreement to remove, and submitted an EA. Mike Wolpert is trying to expedite approval.

In Bldg. 417, we have a considerable amount of equipment that can be removed as Zeon agreements are defined in that area. Chuck Daniels is currently working on these agreements.

II. Process PHAs

We are proceeding slightly ahead of schedule on Process PHAs. I am sending H. Waltemate a copy of the " Risk Ranking " spreadsheets complete to date. I will be logging any copies made, as I have been instructed to treat this information as " Extremely Confidential ". The current status of our PHA Program is as follows.

Complete

Bldg. 422	Other	Bldg. 414
- ADVA (SP&C)	- 422 Tank Farm (SP&C)	- CPVC (SP&C)
- Hydrophilics PP (SP&C)	- 422 Drum Storage (SP&C)	- Latex PP (E&L)
- Polychem PP (SP&C)	- East Waste Staging (E&L)	
- Polychem Semi (SP&C)	- 422 Tanker Unloading (SP&C)	
- EPDM Latex (E&L)	- 417 Tank Farm (E&L)	
- BD Handling (E&L)	- 417 Tanker Unloading (E&L)	
	- Teal Storage (E&L)	

NGC 13032

Remaining To Be Done

Bldg. 422	Other	Bldg. 414
- Hycar Acrylics (E&L)	- West Drum Storage (ALL)	- Estane (SP&C)
- Butadiene Latex (E&L)	- West Waste Staging (ALL)	- SA Poly (GVD)
	- ALGC Bulk Storage (E&L)	- 55 Liter (GVD)
	- Bunker Bldg (ALL)	- Mass PP (GVD)
	- Ice House (ALL)	- Dispersion (GVD)
		- Micro Plant (E&L)