UC 1452

UNION CARBIDE

INTERNAL CORRESPONDENCE

METALS DIVISION

P.O. BOX 1029, GRAND JUNCTION, COLORADO 81502

To (Name) Messrs. R. J. Kronkhyte
Division J. L. Myers/R. O. Marsten
Location

Date November 23, 1981

Originating Dept. Safety

Answering letter date

Copy to Mr. R. L. Folkman
Dr. H. B. Rhodes
Messrs. W. C. Thurber
R. F. Wolff

Subject King City Safety/Health Audit
October 26-27, 1981

CH-29

NOV 30 1981

Gentlemen:

We were most appreciative of the consideration and courtesy extended to us during the audit. The dinner with your staff on October 25 and the Chamber of Commerce dinner on October 26 were excellent opportunities to have additional discussions with Company and community people outside of the regular audit framework.

The conclusions of our audit are as follows.

A. A review of the 1981 Audit items showed that a few recommendations may still need some attention.

* 1. Safety shower/eye wash inspections are still made monthly. We concur with the last year's auditors that the inspection should be more frequent. At least weekly there should be water flow to assure proper operation.

2. The steering committee was set up on periodic meetings, but during the recent management change period there has been a four month gap. Meetings should be held at least quarterly and at other times if special needs occur.

3. Supervisory training is still something local management is seeking, despite the varied programs that have been used. The possibility of using a retired supervisor as a consultant to coach new supervisors was discussed. If this is given further consideration, a structure or program should be developed to guide the consultant. We would be most interested in following this activity if it is tried.

4. Maintenance training has been basically on-the-job training. There is little information on availability of maintenance training programs. Mr. Folkman will ask Rusty Malacarne to develop a list of available resources.

B. Items on the evaluation list.

1. Annual Safety Program is comprehensive, meets the divisional requirements, and all components have been accomplished except for the previously noted temporary setback in steering committee meetings, a cutback in team inspections, and the deliberate dropping of daily mini-meetings in the operations groups. The general reaction of employees interviewed was that the program was good.

2. Management Support of the safety program appeared very good. There did not appear to be any soft spots in the supervisory structure, and most people indicated strong safety emphasis throughout the organization. The only detractors related to dropping of the roving inspection program (maintenance) and to a limited extent a failure of employees to recognize supervisors' personal contacts.

3. Personal Contacts and Observations are well organized and documented. All employees recognize corrective contacts. However, few indicated there was no discussion regarding observations involving "satisfactory performance." The excellent concept of "Safety Tipping" doesn't seem to be getting through to the workers. The many SOP cards document the quantity of observations. A reemphasis of the importance and technique of follow-up contact may help.

4. Task Training was recognized by all employees and most felt it was sufficient to prepare them for the work. A few stated that training by several operators lacked overall coordination and some points were not covered or were described differently by different operators.
   * This could be minimized by having a checklist for each job that would guide any operator in covering the requirements of the training.

5. Off-the-Job Safety is extremely well covered at King City. Every month there is a part of the safety meeting devoted to OTJ safety. This goes beyond anything done at other Metals Division operations. Activities involving families and the community are extensive, involving literature distribution, schools, medical groups. Reaction by employees was unanimously favorable. Two suggestions were made: 1) include some of the planned community activities in your 1982 program and 2) invite local press to visit the plant.

6. Hazardous Material is well identified and controlled. The visitor's card identifies all hazardous materials and employees appear well instructed on hazards.

7. Performance (LWCIR & RIIR) is perfect year-to-date. Comparative statistics are:

	LWCs	LWCIR	RIIs	RIIR	OTJ DIs	OTJ DIFR
1980	0	0	5	7.14	1	3.81
1981 (9 mo.)	0	0	0	0	1	5.02

Martha Sevilla - 244G Operator (7 mo.)

She seemed to be rather defensive and when we talked about safety meetings she said they really didn't relate to her job; she likes meetings where she can talk and where the subjects relate to things that she does. She wasn't here when the tailgates were run and we mentioned that type of approach might be helpful. She felt that the asbestos dust problem in her area was not good, that the wind frequently blew in material from the outside as well as the concentration that comes from the work. She thought she hadn't had a supervisor's personal contact for some considerable time; the last one was when she worked for Bill Usrey. She was concerned about the brakes on the forklift that she has to drive; apparently at times others drive them and when she has complained about the braking she felt it hadn't been properly responded to.

Manning Segobia and Fred Olevis

I talked to these people as they were waiting for shipping material in the truck that was being loaded. They were both quite favorable in their discussion about the whole safety program; it's either as good as or better than ever. They really had no complaints, except some of the respirators caused irritation and we did mention that the respirator study is underway and hopefully some improvement will be forthcoming.

8. Unsafe Acts Program is being implemented via the supervisors' observation and contact program plus the reprimand program where needed. People seem to understand and accept the importance of unsafe acts as the causes of accidents.

9. Housekeeping Program has been given extensive emphasis through plant beautification and stress on cleanup of work areas. Most people were very clear in their concern for housekeeping and in their responsibilities for areas to be cleaned.

10. Employee Reaction to the overall safety program was good. The maintenance department was particularly strong in their support. In operations there were several people who felt that certain areas of the program, e.g., training, follow-up on observations, correction of mechanical defects, etc., should be improved but the overall consensus was good support for an excellent program.

C. Miscellaneous Items

1. Quality Circles were discussed with a number of people and reaction varied. The excellent work done on respirators by one team is going to be a great help to this and other plants throughout the Division. There was a surprising negative feeling toward holding meetings on overtime.

2. Tailgate or mini-meetings were done daily in operations for awhile and are continuing in maintenance on that schedule. A number of people in operations indicated these were helpful in keeping them tuned in on
* safety as it related to their specific job. It appears that some mini-meeting would be helpful and meaningful to operations personnel. Possibly a weekly frequency would be appropriate.

3. The monthly safety inspection procedure involving two hourly people has not been used recently. Several people felt this technique is
* important and should be continued. It appears this part of your program should be reactivated.

D. Health (to be provided by H. B. Rhodes)

Thanks again for your help and interest. Please note that asterisked items require a written response in the form of an action plan or statement of resolution. This is due within 60 days. Please send copies to E. A. Piersall, H. B. Rhodes and W. C. Thurber.

R L Folkman
R. L. Folkman

E. A. Piersall

H. B. Rhodes by Imw

David Vessels - 244 Circuit Operator (3 yrs.)

We talked about his training and he felt that there is a better need for consistency; he had been trained by one operator, then another, and sometimes by a supervisor, and they had not really followed the same training outline of program and certain points were missed or presented in different ways. He recognized the observation program and mentioned that he'd had some corrective contacts. Safety awards, he really feels, are after-the-fact value rather than keeping people thinking about safety before-the-fact. We talked about quality circles and he too related to the shift schedule and the graveyard problem of staying overtime. We talked of safety meetings and he raised an issue that others hadn't, mainly that he questioned the value of safety meetings that were not work related. In this regard I think he would respond well to the tailgate type meeting. He did like, however, the off-the-job emphasis in safety meetings and elsewhere and felt this was of value to employees.

David Higgs - Leadman

David was filling in for supervisor and our brief discussion dealt with how he felt about the supervisory role and as might be expected he felt the squeeze of being put in the middle between the people he normally worked with as a part of the cohort and the temporary condition of having to supervise them. However, he felt that the men did not give him a bad time and although he didn't feel completely comfortable in the role on the intermittent basis. I asked him what problems he had and he mentioned that he was very uncomfortable when he had to enter the dust collector because of the amount of asbestos dust and the fact that you really couldn't keep it under control with a respirator under those concentrations. It also bothered his eyes and he does have a minor concern for long-range possibility of work with asbestos. The safety program applications of supervisor observation, contact meetings, he related well to. The off-the-job safety was okay and he didn't have any strong feelings one way or the other. Work program was okay. He did not relate to JSAs, his training that he had received from other operators he seemed very well satisfied with, the housekeeping effort he related to his personal cleanup of the area, and did remember the tailgates and felt they were all right.

George Valederez

He was a little reluctant to talk but in response to the various questions he seemed to feel that things were going well, including the safety meetings, and housekeeping. He felt that the quality circles in the long term would be okay, but he was a little negative about the participation on overtime. He liked the off-the-job; had read Family Safety and did remember certain articles. We discussed asbestos a bit and he didn't like the green respirators but had tested the Norton two drum respirator which he seemed to like. He too felt that the tailgate meetings had been effective and that they had not worn out or become ho hum before they were discontinued.

E. A. Piersall - Personal Contacts

King City Safety Audit

Juan Villasenor - Operator (1½ yrs.) in Bagging Circuit

I asked him if he remembered the tailgate meetings that were held earlier in the year, and he did not. He thought that the off-the-job safety program was good and that the observation program by supervisors was okay. He was not familiar with JSAs and did not remember that they had used them in his indoctrination. He liked safety meetings, quality circles were good (he belongs to them), housekeeping program he related primarily to the beautification efforts on the outside although the baggers have a big cleanup program frequently throughout the course of each day. He had two problems that he related. One was the plugups on the recycle from the dryer and it in turn causes the bags to kick off the bagger and could possibly cause an injury as well as dust problem.

Jeff Harris - Outsideman (3 yrs.)

Jeff was the one devils advocate in this group. He complained that certain things didn't get fixed until there was an accident, he didn't like quality circles, and didn't want to attend meetings on overtime, and that meetings were sometimes not held when scheduled or schedule was not communicated. He did like the off-the-job safety efforts. He wasn't familiar with zero energy as a term but understood the concept. The safety award program was okay, it did have some value. He thought that housekeeping had improved this year, safety meetings were sometimes okay and sometimes boring, and really did not remember specifically having ever looked at the JSAs.

Kek Flores - Bagger Operator (1 yr.)

We talked about quality circles and he felt that they were good but wondered if they didn't overwhelm maintenance with the amount of work that comes out of them. This was an interesting question, but later indications from management were that this wasn't really happening. Safety meetings were all right, worthwhile, off-the-job was good, the $5 quarterly awards he felt were good reminders. He was not familiar with zero energy as a term, but understood what we were talking about after further discussion. The housekeeping program was very good and he pointed out that one of his functions was regular washdown throughout all of the mill area; this is not specifically assigned to other operators. He does this virtually every day.

Gene Plaskett - Equipment Operator

The main thrust of my discussion with Gene was his involvement in the quality circle that is developing the respirator information and survey. He's very enthusiastic about this and they are doing an excellent job. I asked him about the unsafe acts program and he is a little uncertain as to where it exactly fits, he liked the awards, and felt that the tailgates which maintenance people are having were good and were helping.

KING CITY AUDIT

HEALTH ITEMS

New Union Carbide Corporation policies, procedures and guidelines on Occupational Health and on Regulatory Compliance were issued in March of this year. Adaption of these requirements to Division policies and standards is in progress and will be completed before the end of 1981. A Corporate audit of our Division program is expected about mid-1982.

Under these circumstances it is inappropriate to audit present component performance against new and not yet well defined requirements. On the other hand, revised Division standards will be in effect in 1982 and plans need to be made now to meet them. On this basis the present audit has two parts:

1. The usual deficiency audit based on meeting present Division Standards as given in the Division Safety Manual.

2. An identification of likely deficiencies in meeting the new standards based on Corporate requirements. Specific reference is made in this connection to the Corporate Occupational Health Manual, Policies/Procedures, Industrial Hygiene dated 4/14/81 and to the Model Program Guideline dated 10/2/80.

The results of the deficiency audit (current standards) are summarized on the attached sheet. Comments on specific items covering both present deficiencies and potential deficiencies in meeting the expected 1982 standards follow:

1. Health Program - Written Description, Accountabilities, and Application

Although the location has an extensive health program only safety considerations and actions were explicitly addressed in the 1981 plan. Similarly, Mr. Kronkhyte clearly has the direct responsibility to implement the health program (and is doing so effectively) but this accountability was defined in his Charter and MOP's in only very general terms.

1982 Considerations

Written Accountabilities

The Corporate manual puts great emphasis on written accountabilities and control against standards. It is suggested that Position Charters and MOP's be reviewed carefully to be sure that accountabilities for health matters are complete and can be traced clearly. (Note also that written accountability requirements also cover not only health matters but also safety and environmental affairs.) As agreed at the audit, some Charters and MOP's from other locations have been provided as illustrative examples.

Written Program Description

The 1982 Safety and Health Plan should specifically address the items in the Division Health Plan as they apply to this location. The principal health hazard here is clearly asbestos exposure. The activities which are under way with projected completion in 1982 should be mentioned in the plan.

We would like to work with you to implement a computer program to provide annual and cumulative individual worker exposures to asbestos. (Entry of past exposures will await successful results for 1982.) This activity should be noted in your plan.

Noise exposure may also be a problem at an area in the mill and with certain heavy equipment. Projected action or the documentation that no further action is needed should also be included in the plan.

2. Application of UCC Standards and Policies

As noted previously likely deficiencies for 1982 will be indicated as they occur.

3. Education of Personnel on Health

Very solid and comprehensive.

4. Management Support

Very solid.

5. Physical Examination Program

Medical examinations and audiograms are up-to-date. The pre-employment physical is a very thorough 4-6 hour examination done under contract by a well-equipped local clinic. If a back disorder is indicated, a full back X-ray is done. A medical O.K. is required before the person goes to work.

The manager receives an "O.K." or not "O.K." report from the examining physician. A copy of the medical record (preplacement or periodic) is also supplied to the location. If a non-job related problem is found, the physician writes a letter to the employee with a copy to the manager. For a job-related problem, the manager discusses it with the employee.

The new Corporate preplacement form is not yet in use. The most recent California State asbestos requirements are also not yet being followed but the change is being implemented.

* 1982 Considerations

There was a question whether MSHA and/or Cal/OSHA regulations require that the medical records be available on site. It also appears that the manager has more access to employee medical records than permitted by Corporate policy. We need to sort this out in 1982. The change to the current preplacement form and this new California requirement should be implemented.

King City Audit - November 26, 1981

Personal Comments - R. L. Folkman
(Eight Men Interviewed - Maintenance)

1. Meetings

   a. Daily (meeting in morning for maintenance) - mild to good, no raving enthusiasm, but no negatives.

   b. Monthly - well organized ("Fred really does his homework"), generally interesting and informative.

   c. One-on-One Contacts - two positive reactions, five neutral.

   Note: Five guys (independently) felt the absence of the safety committee's monthly inspection. There seemed to be a sense that the safety committee was more effective: a) as a communications sounding board (listening to problems), b) spotting unsafe and poor housekeeping situations, and c) follow-through in fixing problems. One individual felt that Quality Circle (QC) was "outweighing" safety (i.e., too much preoccupation with QC at the expense of safety).

2. Housekeeping

   a. Regarding "beautification program," four individuals felt it a positive, visible program. Two individuals were somewhat neutral. Two others felt the money would have been better spent inhouse (under the filters, bagging areas, etc.) ... "putting cosmetic on a pimple."

   b. Regarding housekeeping, the maintenance folks are proud of their system - claim it's the only way it works, it fosters more "team spirit," and other areas of the plant (notably, bagging areas) should try the system, i.e., assign, on rotating basis, different guys each day to clean up area. (They feel "no one over in the bagging area feels responsive - it's always someone else's job.)

3. Awards

   Feel the $5.00 is most effective (unanimous).

4. Off-the-Job

   Generally positive - "Company takes an interest."

5. General Overall Impressions

   Very positive, "not many companies take much interest."

   Management supportive of safety (but should restart safety committee mechanism).

6. Industrial Hygiene Sampling and Records

a. Radiation

Two sources are present in analytical instruments. Monthly scintillator readings and wipe tests at 6-month intervals are performed as required.

b. Dust

Comprehensive monthly asbestos samples are taken. Reporting is extensive and clearly expressed. The following modest changes will make the records much more valuable for epidemiology and for potential compensation cases.

Where respirators are worn, the make and model number should be given. Where respirators are not worn, a positive statement to this effect should be made. The statement, "He was wearing a respirator as needed" (Arthur Valdey 8/24/81) is too vague to be useful. There is no way to adjust actual exposure to reflect respirator use.

Although the same microscopic field counting area has been used for years there is no assurance that it will never be changed. Inclusion of the counting field area with the other information at the end of each individual summary would remove this potential ambiguity. It would also allow back calculation of the total number of fibers counted in each sample and an estimate of the confidence limits on the analytical results.

1982 Considerations

The King City laboratory is neither AIHA certified nor a participant in the NIOSH PAT Program. The substantial extra effort needed for such certification also does not seem to be justified at this time.

In order to be reasonably sure, however, that our results will withstand possible attacks in the future, it is most important that a limited, but written and documented, quality assurance program be in place. This should include a written procedure for sample collection, slide preparation, and counting. (The current NIOSH procedure with supplemental notes on our specific equipment may be sufficient here.) Equipment and microscope calibration should also be included and records of such calibrations should be kept. In addition, a modest filter exchange program should be developed and the results documented. (4-6 split filters counted quarterly by BLI + the same 4-6 semi-annually by Paul McDaniel, one of the Corporate I.H.'s, or by a PAT participating, AIHA certified laboratory at one of the other U.C.C. locations would be adequate.)

Examination of the asbestos exposure records also showed that airborne concentrations substantially in excess of the allowable limits occur occasionally in the bagger areas when operational problems are encountered. High exposures can also occur during maintenance on the bag filters.

Although respirators are required for both of these cases, they are technical overexposures. More importantly, there is no way to tell from the present sampling strategy how long the condition exists or when it has been corrected. This can have a very substantial impact on a worker's calculated cumulative exposure. It also builds into the record an apparent indication of lack of concern.

UCC 025254

At most locations when a substantial overexposure occurs, the normal practice is to take steps to remedy the cause and also to take additional samples to demonstrate that the problem has been fixed. It is suggested that the practice be considered for 1982.

The possibility that a continuous monitoring instrument might be used was also discussed briefly at the audit. There is at the present no generally accepted instrument that reads out directly in fiber/cc but there are several which under limited conditions may provide relative concentrations. It is suggested that the applicability of a continuous instrument should be explored in 1982.

c. Noise

The semiannual surveys are up-to-date and are in compliance with Division and Cal/OSHA requirements. For 1982 dosimeter checks for the several noisiest mill locations and equipment should also be made. If exposures exceed 85 dBA engineering/administrative controls should be planned and implemented or the reasons that such controls are not feasible should be documented.

7. Employee Protection

a. Breathing Air

Dust collectors discharge outside with no direct reuse of air. Substantive efforts are under way to reduce the general level of airborne asbestos in the outside air. Scott Air Packs and supplied-air systems are available for extreme high exposure conditions and for emergencies.

b. Protective Equipment

1. Respirators are widely used both at the worker's option in low exposure areas and as mandatory requirement in some jobs where there is a potential for high exposures. There is an active Quality Circle effort on the evaluation of respirators from the user's viewpoint.

* A Division Policy/Procedures, Standard, and Model Program for respiratory protection is expected in early 1982. When this becomes available, the location program should be reviewed for compliance with this standard.

2. Rubber suits, gloves, and face shields are provided and their use is enforced for the handling of undiluted acid and silicate.

* 3. Hearing protection is provided for certain jobs or locations. A Division Policy/Procedures, Standards, and Model Program for hearing conservation and noise control is expected in early 1982. When this becomes available the location program should be reviewed for compliance with this standard.

c. Personal Monitoring

Extensive program for asbestos is on target as discussed under 6(b).

UCC Metals Division - Mineral Products Dept.

1981 Safety & Health Audit

Location: King City
Date: 10/26/81

		Auditors' Evaluation				
	Std.#	1	2	3	4	Avg.
		EAP	RLF	HBR		
Safety Items, General						
1. Annual Safety Program Application	2	2	3	2		2.3
2. Management Support, All Levels	Policy	3-	2+	3		2.7
3. Personal Contacts & Observations	11-12	2-	2+	--		2.0
4. Task Training, Procedure & Effectiveness	14	2-	2	2		2.0
5. Off-the-Job Safety & Health - Planning Application & Employee Reaction	22	3	3	3		3.0
6. Hazardous Material - Identification, Control	18	2+	2	2		2.0
7. Performance (LWCIR & RIIR) vs Goals	-	3	3	3		3.0
8. Unsafe (Careless) Acts Program	-	2	--	2		2.0
9. Housekeeping Program	-	3	2+	2		2.7
10. Employee Reaction to Overall Safety Program	-	2	3	--		2.5
Safety Items, Specific to Location						
_____						
_____						
_____						
_____						
_____						

Rating System: A - Above (3)
O - On (2)
B - Below (1)
N - None (0) (where required)

Auditors: 1. E. A. Piersall
2. R. L. Folkman
3. H. B. Rhodes
4. _____

UCC 025256

d. Hazardous Work Permits

A well defined program is in place and functional.

e. Special Controls

The principle concern is the operation of baghouses. These are checked almost constantly for visible emissions. Ventilation checks are not made routinely and do not appear to be necessary.

8. Emergency Procedures

* Spill prevention control, countermeasure plans, and Section 311 reporting are covered extensively for diesel and gasoline. Glacial acetic acid is mentioned briefly and concentrated sulfuric acid is not addressed at all. A countermeasure plan for both of these should be provided.

Procedures in case of a serious injury or death are well defined.

The Emergency and Disaster Plan is generally comprehensive but the definition of specifically what is to be done by whom if a disaster occurs is not completely clear. Specifically, there is a bulletin board notice about an emergency and disaster signal that states:

> "All employees are to report to the area outside the North overhead mill door for further instructions."

This is complemented by a sheet entitled "Emergency and Disaster Plans." This sheet addresses the Organization, the Communications; Fire Protection, and Police Protection actions. It also states that the Safety Steering Committee and the Shift Supervisor will perform four duties as listed.

Finally, there is a "King City Plant Disaster Plan" which appears to be largely general instructions taken from a governmental publication about what to do wherever you are if any of the listed disasters strike. There are also some broad statements about clean up spills, turn off the main gas and the main power which relate to the mill.

The key element that seems to be missing is specific written instructions on how to shut down the mill (conditions permitting) in an orderly and safe fashion and designating the responsible people to do this. It is also assumed that the most senior management representative on location will be responsible to see that the "further instructions" called for in the "Notice" are provided for the employees who report to the area outside the North overhead door.

Most of these uncertainties would be cleared up if the "Emergency and Disaster Plan" had a final category Management Actions which included the items already listed plus the shut down and personnel instruction actions described above. Note, however, that this would leave the key telephone numbers for emergency services and senior managers in still another document "Emergency Procedures" which is specifically directed at serious injuries. It would be best if these four documents were integrated into one well organized, indexed set of instructions.

9. Contractor Safety

Health and safety requirements are well defined early in the bidding and compliance is monitored.

10. Governmental Interface

Official inspection visits by governmental regulators are handled by Mr. Marsden (Environmental) and Mr. Kronkhyte (Safety and Health).

For 1982 it is suggested that the program be re-examined and expanded to cover not only inspectors per se but governmental research agencies, their contractors, the media, and even inquiries from private citizens. The information on appropriate actions should also be extended to salary personnel at all levels.

Health Items	Auditors' Evaluation Std.#	1	2	3	4	Avg.
1. Health Program - Written Description, Accountabilities, & Application	Current Division				2	
2. Application of UCC Standards & Policies					N.A. (1)	
3. Education of Personnel in Health Requirements	"				3	
4. Management Support (All Levels)	"				3	
5. Physical Examination Program	"				2	
6. Industrial Hygiene Sampling & Records	"				-	
a. Radiation	"				2	
b. Dust	"				3	
c. Noise	"				2	
d. Gases	"				-	
e. Vapors (e.g., SX)	"				-	
f. Other if applicable	"				-	
7. Employee Protection	"				2	
a. Breathing Air	"				2	
b. Protective Equipment	"				2	
c. Personal Monitoring	"				2	
d. Hazardous Work Permits	"				2	
e. Special controls, e.g., ventilation, monitors, etc.	"				2	
8. Emergency Procedures (Vapor cloud, spills, etc.)	"				2	
9. Contractor Health Information	"				2	
10. Governmental Interface - Rapport, Concerns, Conflicts	"				2	

(1) Standard from UCC Occupational Health Manual - It is not appropriate to audit vs. new UCC Standards. Likely deficiencies in meeting the new standards are indicated in accompanying notes.