PLAINTIFF'S EXHIBIT

UC-2839

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.

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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.

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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).

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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 samoling 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.

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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).

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UCC Metals Division - Mineral Products Dept.

1981 Safety & Health Audit

Location: King City
Date: 10/26/81

	Std.#	Auditors' Evaluation 1 EAP	2 RLF	3 HBR	4	Avg.
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. Rhoces
4. _____

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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.

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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.

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Health Items	Std.#	Auditors' Evaluation 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	"				-	
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.

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