



INTERNAL CORRESPONDENCE

FU 10/10

METALS DIVISION

P.O. BOX 1029, GRAND JUNCTION, COLORADO 81501

To (Name) Messrs. R. E. Hayes
 Division F. H. Larrison/
 Location R. J. Kronkhyte
 W. C. Thurber

Date

September 12, 1975

Originating Dept.

Safety

Answering letter date

RECEIVED

SEP 15 1975

Copy to Mr. E. C. Gibbs

Subject

Safety Audit - King City
 Operation
 October 15-16, 1975

Gentlemen:

The audit team composed of Messrs. Hayes, Piersall, and Thurber plan to do the King City audit on October 15-16. The audit team should arrive at the plant by approximately 8:00 a.m. on Wednesday, October 15. The program review should take about half a day and the rest of the time will be available for inspection and personal contact. We should finish by midday on October 16.

Attached is an audit outline questionnaire which may be helpful. This year we will utilize our existing safety guide as a basis for auditing. The check list is based on the guide and includes questions relating to the minimum standards as well. We want to take a close look at the 1975 Safety Program as well as review last years audit report. Attached hereto are some suggested questions that might relate to contacts with both supervisory and hourly people. An additional subject we will wish to discuss is "What are the key situations (critical few hazards) that need the greatest safety emphasis and what are the controls for these."

Extensive preparation should not be necessary; however, any new or significantly modified procedures or documentation should be available for review. Please have available for each auditor a copy of your 1975 safety program.

Auditors should make their own travel arrangements and advise King City of any room reservations, etc., that are needed.

Very truly yours,

E. A. Piersall
 E. A. Piersall

EAP/brs

MINING AND METALS DIVISION SAFETY AUDIT CHECK LIST

Subject

1. Safety Policy (Subject #1)
 - a. Is it written and signed
 - b. How is it employed (i.e. effective planning and supervision each level)
 - c. Is it known and accepted by all
 - 1) Supervision
 - 2) Other salary
 - 3) Hourly
 - d. Are responsibilities defined for various levels and relationships clear re operations, maintenance, etc., (see Subject #4)
2. Safety Steering Committee (Subject #3)
 - a. Structure
 - 1) Top management active
 - 2) All departments involved
 - 3) Chairman; should be top management
 - b. Meetings
 - 1) Regular (monthly suggested)
 - 2) Agendas; do they get depthful consideration of all problems
 - 3) Reports, are they timely, complete, used by all
 - 4) Accomplishment; is committee effective
3. Procedures and Rules (Subject #9)
 - a. Safety rules
 - 1) Printed booklets, distributed
 - 2) Revised when
 - 3) Complete/adequate

b. Procedures

- 1) Jobs covered
- 2) Jobs needing procedure (list?)
- 3) Are procedures adequate
- 4) Reviewed when, by whom

4. Planned Safety Program

- a. Are five basic requirements covered (Sub. 8)
- b. How developed (Safety Engineer, Dept. Heads, etc.)
- c. How used, continuing thru year
- d. Other components desired (standards, etc.)

5. Accident Investigation and Reporting (Subjects #5 & #6)

a. Foreman Accident Reports

- 1) Are all injuries reported in writing
- 2) Is higher supervision input used and meaningful

b. Formal Investigations (severe accident)

- 1) Is immediate notification given Operational Manager and Safety Director via telephone and Government agencies if required
- 2) Adequacy of reports (sample)
- 3) Are investigation teams structured properly
- 4) Promptness of completion and submission
- 5) Use of reports from other locations

c. Are damage accident reports used for over \$100 cases

d. Is the RII system understood and referenced in statistical usage

6. Inspection (Subject #11)

a. Supervisory inspections

- 1) Various types and frequency

*SIR out
alt 12/1/70
use me
DIFF & RII*

2) Reports and distribution

3) Follow through

b. Assigned inspections specific items

1) Is there a master list; are there omissions (See Sub. 11 for ideas)

2) How are these kept current

3) Is follow up correction adequate

7. Special procedures

a. Equipment Release Procedure

1) Defined in writing - form prescribed

2) All necessary people involved

3) Review recent usage; omissions?

b. Safety information, shift communication

1) Established, in writing(?), adequate?

c. Repair Priority System

1) Safety considered and given emphasis *various*

d. Safe Work Permit

1) List of activities (location)

2) How publicized and use

3) Review recent usage

e. Hazardous Material Identification

1) How set up - who evaluates

2) How used

8. Safety Training and Education (Subject #13)

a. Supervisors

1) Presupervisor - syllabus
All trained before solo

2) On going Supervisor -
Method, frequency
Outside courses (safety content)

b. Hourly

1) New Employee Orientation

- a) Written outline or check list
- b) How administered (Safety Department, Supervisor, etc.)
- c) Verify before probation ends

2) Special training e.g. mobile equipment (safety concern)

- a) What jobs or skills - written?
- b) How accomplished
- c) Certification, required, what jobs

3) Safety meetings

- a) How is "training" involved in meeting (instructions vs general info.)
- b) Do meetings involve all employees
- c) How effective are meetings - audio visual

c. First Aid; offered all employees annually

9. Fire Prevention, Protection and Fighting

- a. Fire prevention planning, hazards defined, controls established
- b. Special instructions made (e.g., handling gases)
- c. Flame permits and no smoking areas defined
- d. Sprinklers or fixed systems - alarms
- e. Fire extinguishers - adequate, inspected
- f. Training, all personnel
- g. Fire fighting procedure

1) Special crews

2) General alarm and procedure - written, drills

3) Outside aid

10. Emergency and Disaster Plan

- a. Written and communicated
- b. Drills

→ New had drill but did cover in safety mtg.

11. Contractor Safety (Subject #17)

- a. Written special rules (see Sub. 17) and instruction
- b. Communication (bidding or prework)
- c. Ongoing control of contractors

12. Job Safety Analysis and Safe Work Procedure (subject #9)

- a. Jobs covered - JSA and/or SWP
- b. Current objective list
- c. How JSA/SWP reviewed - when
- d. How are these used on daily basis (training)

In progress
Most 1975 JSAs on plant
Reviewed annually - 5000
JSAs selecting to each job.

13. Environmental Hazards

- a. What substances are routinely mentioned by local personnel (dusts, gases, fumes, toxic materials, noise, radiation, flammables, etc.)
- b. How is monitoring done - by whom (spot samples, personal monitors, etc.)
- c. Substances that exceed allowable limits
- d. Action and plans to achieve compliance
- e. Personal protection program (respirators, chemical suits, hearing protectors, etc.)

14. Personal Safety Contacts (Subject #14)

- a. How is responsibility assigned to supervisors
- b. What is expected frequency of contact
- c. How is contact prescribed - rules, job procedures, general safety, etc. - variations
- d. Documentation and/or other verification

One per month / man.

15. Safety Observation

- a. How is this prescribed and communicated to Supervisors
- b. What is frequency of observations
- c. What records are used
- d. How is summary information kept and used
- e. Do foremen understand importance of this as training tool

16. Hearing Conservation (Subject #16)

- a. Is audiogram program used
(Baseline and each physical exam for every exposed employee)
- b. Does Safety Department or management have access to audiogram information - are hearing changes noted and action taken
- c. Have adequate noise exposure surveys been performed, time weighted?
- d. Are hazard areas being subjected to engineering efforts to control noise
- e. Are protection devices used where needed - training adequate - any special problems or lack of acceptance

17. Housekeeping

- a. Are area responsibilities assigned to supervisors
- b. How is housekeeping accomplished - daily, weekly, etc.
- c. What type inspections are used - supervisors, superintendents, managers, safety dept., etc.

Minimum Standards

MS#1 Electrical Safety - review all items

MS#2 Confined Spaces

- a. Is there a list of Special Work Permit jobs? Are confined spaces prescribed
- b. Are ll basic requirements defined in plant written instructions
- c. How is entry controlled to assure compliance with all requirements
- d. Does operation supervision know and accept responsibility of transmitting complete knowledge to maintenance personnel before work begins? What method used to assure this

MS#3 Falls Between Levels

- a. How is fall protection policy (4') defined and implemented
- b. How is scaffold instruction and installation controlled

MS#4 Seat Belts

- a. Do any vehicles fail to have belts
- b. How is the seat belt usage requirement emphasized and enforced

MS#5 Mobile Equipment

- a. Is there a training program for every type mobile equipment
- b. How is training accomplished
- c. Is list of qualified operators maintained? Up to date? Used?
- d. Is there a procedure to review and recertify annually
- e. How is inspection system for each piece of equipment handled

- f. Have deactivation devices been adopted for equipment
- g. Do all have 1) canopies or 2) ROPS and seat belts
- h. Are forward and reverse lights provided? maintained?
- i. Are back-up alarms (or flashing lights) provided

MS#6 Long Hair or Facial Hair

- a. Is long hair policy applied
- b. What devices are used? How consistently
- c. Where respirators are required is facial hair properly trimmed to provide good fit? Have any tests been done?

Managers Safety Audit

Suggested Questions for Supervisors

- How do you feel safety performance affects your personal evaluation, pay, promotability? Are factors being applied fairly in our system?
- What is your personal safety specific objective for 1974; next five years?
- Do you get support help in performing your safety program requirements - JSA, meetings, contacts, repairs, discipline?
- Do production demands override safety?
- Do Labor-Management relationships pose safety problem? (Union action, Safety Committee Steward, worker challenge safety of job?)
- What are the areas of weakness in our Safety Program?
- How do you report your safety efforts to your boss (scheduled, form, impromptu)?
- What safety orientation training do you give your new employees - when, how, who, where? How about post indoctrination training?
- How do you handle safety suggestions received: a) Procedure change needed, b) Physical change needed?
- What are most important hazards that concern you?
- Is work permit/lockout adequate to protect your people - why?
- What safety training is required of foremen?
- Do you have sufficient authority to accomplish your responsibilities in safety? Why (not)?
- How do you get best safety results when dealing with hourly employees (talk, written instructions, threats, discipline, correct things promptly, job observation, etc.)?
- How do men react to safety meetings, contacts, observations?
- What is best way to change long term unsafe work habits?
- Do we have accident prone 'individuals'? If so how serious is their affect on accident experience?



INTERNAL CORRESPONDENCE

MINING AND METALS DIVISION

P. O. BOX 1049, GRAND JUNCTION, COLORADO 81501

To (Name) Mr. F. H. Larrison
 Division Mining and Metals Division
 Location King City, California

Date November 4, 1974

Originating Dept. Safety

Answering letter date

Copy to Messrs. J. F. Emerson
 R. J. Kronkhyte
 W. C. Thurber
 H. F. Reichard

Subject Management Safety Audit -
 King City
 October 16, 17, 1974

Dear Larry:

The audit team was most impressed with the good safety work that had been done since the last audit ten months ago. Most of the recommendations made in 1973 have been augmented. The safety record is without blemish this year and in our interviews of personnel we were most pleased with the attitude displayed throughout the entire organization. Furthermore the plant was in as good appearance housekeeping and safetywise as we have ever seen it. We were particularly impressed with the improvement in the maintenance area appearance.

We will review the points on last year's audit following the same numbering system used previously as follows:

- I.A.1. Plant safety policy. This has been revised, has been posted and reviewed with all supervisors. All that remains to be done is have it signed by the manager and included in the forthcoming safety rule book.
- I.C.1. Central Steering Committee. This committee is functioning, meeting approximately every two months. Records are kept. Although it may not appear to be significantly different from the informal system previously used, the audit team believes the more formalized approach has definite advantages in assuring that the work gets done, action is taken, people are properly informed, etc. It certainly is of value to the Divisional Safety Director in keeping abreast of action at the plant.
- I.D.1. Annual safety program. The annual program has been developed including suggested changes from last year and appears to be serving its purpose very well. The only question noted was in one or two discussions the supervisors indicated they would like a little more help in planning, and preparing their monthly safety meetings and there was a general feeling that a few more safety films would be welcomed in the safety meeting application.
- I.D.3. Program communication. The recommendation that the asbestos health information be distributed has been accomplished and via two special approaches this year re-enforced by management's presentations, apparently with excellent results on the part of those attending the program.

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- I.E.1.a. New employee training. Last year's recommendations regarding establishing a safety shoe stock has been accomplished. The only related recommendation is to raise the shoe allowance to cover the average cost of a pair of shoes. The other recommendation from last year was to establish a testing of safety knowledge before probationary period ends. Tests have been developed and will be implemented into the program in the immediate future.
- I.E.3. Personal contacts. This has been given special attention and appears to be going well; however, interviews would indicate that personal contacts are largely corrective or instructional. Our only suggestion is that the supervisors expand contacts to generate open exchange of safety ideas and develop a two-way communication potential to the maximum.
- I.E.2.e. Safety meetings. These appear to be doing well except as noted above in I.D.1. We were particularly impressed with the development of the reporting form which includes safety meeting information, personal contacts and supervisor observation reporting for each crew.
- I.E.4. Job observation. This program has been reemphasized and appears to be going successfully. A review of the minutes and a discussion with the individuals would indicate that contacts are being made; however, there seemed to be an indication that supervisors may not follow up an observation with a contact unless there is some deficiency in the contact. They should be guided to assure that they do have a contact to review the job procedure with the employee after each observation.
- I.F.5. Safety rules. The rules have been reviewed and revised and are ready for printing. Hopefully this will be accomplished in the immediate future. Following printing, reissue and rediscussion with all employees is planned.
- I.J.1. Job safety analysis. We were pleased to find that each supervisor had been assigned specific job safety analysis to work on during the balance of 1974 and that this work is being done with the exception of the maintenance area. Maintenance is where it needs to be stressed the most. One general suggestion is that the supervisors involve as many hourly employees as possible in the review of the job procedure before the JSA is finalized.
- I.J.6. Major hazard survey. A review of the major hazards has been done and defined in writing. This will serve as a basis for the UCC major hazard survey form should it be called for sometime in the future. The problems are known; only the format remains to be followed if and when necessary.
- I.K.3.b. Medical. Improved medical relationship has been developed primarily through Dr. Welsh's visitation with the local clinic.
- I.L.1. Safety suggestion. The normal way that safety suggestions are encouraged is through personal contacts and job observations. It may be desirable to conduct a special safety contest sometime in the future.

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- I.N.3. Disciplinary policy. This has now been written and reviewed with all supervisors.
- I.P.1. Driver's certification. Drivers license numbers have been obtained and the new Clark Company's training program is being reviewed for initiation in our forklift training. Pertinent parts of this should be considered for other types of mobile equipment such as front end loaders, etc., and the proper syllabus covering various types of mobile equipment developed therefrom.
- I.Q. Off-the-job program. Although this program was not mentioned in last year's audit recent Corporate emphasis on off-the-job accident records and concerns have provided encouragement to stimulate off-the-job safety wherever possible. Of particular importance to the Corporation is emphasis on traffic safety such as defensive driving training, etc.
- II.C.2.a. Dust control. Significant progress has been made in dust control through new and improved facilities and increased sampling techniques.
- II.C.2.c. Noise. No engineering study has occurred since the last audit. An initial step will be to provide King City with the noise exposimeter (mailed 10-21-74). This will permit personal monitoring to determine full shift noise exposure level estimates on the individual jobs. Following this it will be easier to determine which areas may need engineering efforts directed toward them.
- I.C.3. Noise standards. Apparently I erred in believing that the noise standards in California were lower than OSHA. If we meet the 90 decibel 8-hour standard (until OSHA standards are changed) this should be adequate.
- III.A.1.a. Hazardous materials. Barricading and separating of hazardous material tanks, etc., has been accomplished.
- III.C.5. Condition of buildings. Certain recognized hazards still remain including steep stairs, slippery floors and minimum space for movement in some locations. Slippery floors continue to be a problem that concerns many people and maximum utilization of roll roofing for other anti-slip material is essential along with frequent cleaning, etc.
- III.E. Fire water reserve. Though not covered in last year's audit report it was discussed. We feel that the bottom of the fire water tank should be converted into a reserve for fire water only with proper valving controls, etc.
- IV.A.2. Safe work procedures. The use of safe work permits has been defined in a list and included in the new safety rules forthcoming soon.
- IV.E.9. Tools and equipment. Inspection of hand tools is not yet accomplished; however a list for inspection has been developed.
- V.A. Order and housekeeping. The general housekeeping of the mill was excellent. The maintenance area was greatly improved over the past as was the bagging palletizing area.

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V.E.

The most outstanding feature. Again, this was difficult but we felt the general attitude of all people we talked to showed nothing but strong support and appreciation for the safety program and we were greatly influenced by this reaction.

In summary, most of last year's items have been accomplished or are in the process of being accomplished. Physical conditions are much improved, areas of some concern outside of those covered in the audit questionnaire are basically oriented toward the asbestos dust problem. As a correlary action in connection with the audit a review was made of the dust sampling program with Dr. Welsh and Paul McDaniel, the audit team, and plant management group. Out of this discussion came the general agreement that the mill will be reviewed and put into approximately seven categories with monthly sampling including every month the bagging/palletizer area and three of the other categories. Operators in those groups will be given personal monitor sampling approximately 8 one-half hour samples during the course of a shift. This will provide meaningful information for estimates of full shift exposure. In conjunction with this will be, at least on a 6-month basis, area samples made of the other portions of the mill not covered by the personal monitors in the approximate seven critical areas. After this information has been developed for approximately six months a review will be made to ascertain what changes may be needed and to determine how we can best computerize this information so that we can readily have available individual exposure time weighted averages for all personnel.

In addition Dr. Welsh has asked for a mortality study on all King City employees with more than one year of service going back to plant start up and continuing in the future.

The audit team was most appreciative of the cooperation extended to all visitors and again let us congratulate you on the outstanding improvement achieved in the King City plant from the safety viewpoint last year.


E. A. Piersall


H. F. Reichard


W. C. Thurber

KING CITY SAFETY AUDIT

Personal Interviews by E. A. Piersall with Dick Marsten

Curtis Roden, Mechanic, nine years.

He reports weekly supervisory contacts, basically rule related. He is familiar with the SOP Program, which he okays, and he thought that safety rules were adequate and well understood. We discussed the hazardous work permit and he felt that there was an occasional problem of inconsistencies, such as a permit that requires the key to be removed from the ignition and at certain stages the key has to be in to do test work. Regarding training, he has had none in recent years. Awards, he felt, were good although he did feel that they were definitely after-the-fact recognition rather than before-the-fact incentive. The award pins, he likes, although he keeps them all at home, and would miss getting his pin in front of the group if he didn't earn it. Regarding asbestos exposure, he has some concern and he said that he was going to stop smoking cigars.

Ernie Gallardo, Mechanic, electrician.

He said his initial training under Roy Crow was very good, but nothing mentioned since then. Personal contacts were primarily associated with the supervisor-observation program. He only acknowledged discussion on SOPs when errors were noted by the observer. Safety meetings were discussed and he felt that sometimes they were boring because most of the emphasis was on safety rules that were known. Probably more films would help make the meetings more interesting. We discussed safety suggestions and he felt comfortable by going to the boss and, if he ever had to, he could go higher, but he had not had that need. Awards were discussed and he liked the jackets and the pins both. He was not interested in the New York trip for himself personally. Asbestos exposure was a concern, but he felt the company was doing everything possible and he indicated that he had quit or was quitting smoking. His only suggestion for improvement was better housekeeping. We turned the tables on him and pointed out his own housekeeping area which was in some need.

Gene Plaskett, Mechanic, five years.

He also reported a good indoctrination training under Roy Crow. He recognized occasional personal contacts, most of which he felt were corrective in nature. We talked about SOP which he likes and he referred to his last one about a month ago which dealt with his attitude and a temporary upset condition that he had. Safety meetings, he thought, were good, although he did indicate films would be helpful. No unsafe areas were noted in his thinking. Awards, he felt, were all good and he liked the pins particularly. He felt awards were truly incentives. Asbestos exposure: he felt the company was doing what it could and should but he felt that he wanted to quit smoking. He had no other suggestions.

George Larson, Maintenance trainee.

We talked about training as he was a relatively new employee and new on his job. All answers related to on-the-job type training, learning from other

Explosives - None used
(except by contractor
occasionally).

Confined Space.

main concern is heat

XX Test gas hoses prior to leakage
prior to welding cutting. ^{gas} no ^{gas} cylinders
in tanks.

Rolling Stock

*** Mark location on tracks for
Storage

Pressure Vessel

Air receivers

Boiler

Propane Tanks

Major problems

Hyers tested boiler after cleaner.

XX Testing plan for safety devices
(pop-off valves, etc.)

Metals Div. developing ^{mini.} steel.

Inspect ~~those~~ those
that Trumble's
is not doing.

employees, and his supervisor. Lots of questions and answers and close attention by Herman. Personal contacts were all right with him, but, again, mostly oriented towards correctional activities. He felt the SOP program was okay. He had no hazards that bothered him in his work. He felt the awards were good. He felt the pins had value; however, he admitted that he kept his stored on the shelf at home. When asked what was the most important factor that kept him working safely, he felt it was his supervisory contact regarding safety. He had no suggestions about the asbestos exposure. Controls were effective and he did not smoke.

Steve Perez, Press operator, four years.

When discussing his initial training, it was surprising that he felt that he got little out of it. Too much was thrown at him at once. He related to fork-lift training by Abby, which he thought was good. The rules were reviewed and corrections made so that he, over a period of time, became a proficient fork-lift operator. He admitted having to be corrected severely in one or two cases to slow him down in his driving. He thought personal contacts were good and he particularly appreciated Bill Usury as an effective supervisor in this regard. Regarding SOP, he noted that Usury had done a SOP on him last week on a start-up procedure and had acknowledged his satisfactory technique. There was no hazard that bothered him in the plant particularly. Discussing awards, he thought they were okay, but he was not enthusiastic. He didn't particularly care much for the pins and said he didn't want to go to New York because he is uncomfortable with strangers. Safety meetings were discussed and he thought the information was helpful, and, when prompted, he felt more films would be desirable. When asked the question what influenced him most to work safely, he said it was his own desire to work safely, his own needs was the greatest incentive to him. Asbestos exposure did concern him when he had to work in dusty areas, such as the bagging room, but not in his present situation in the presses. He does not smoke.

Pako, Metallurgical engineer.

I was very pleased to discuss safety with Pako, who was not directly in the mainstream of safety involvement. Nevertheless, he showed excellent interest. He has worked toward developing JSA's procedures, rules, display posters, etc., in the lab. He was not familiar with the plant safety meetings except the supervisor meetings and I did suggest that he occasionally sit in on a safety meeting. He has done SOP's on lab personnel. When asked whether he felt safety would effect his performance evaluation, he said that he thought it would, but he had no understanding of any formalized approach in this regard. He felt the support that he got from other supervisory/management officials was very good. He has no problems in this regard. He did feel that production never overruled safety in his own area of operations. I was pleased to note that he trains his own lab people himself and, apparently, takes a lot of pride in emphasizing this. Currently, he is learning sign language to be able to better communicate with the deaf mute technician.

Ed Sinclair, Mechanic, ten years.

He noted that he got good supervisory contacts from Herman once or twice a week. Safety meetings do help in keeping him informed. There was no hazardous situation on his job that he was worried about and he had no suggestions.

Electrical

- No 480 volt switching
- ** Visual Inspection to Ground yearly
Need to do & report
- Try not to use double insulated tools
- * Try Switch O.K.?
- Look out - gas lines, valves, agitators

Sho

Mowing Machinery
Tag Book Film - State Comp. Ins. Fund

Lifting Equipment

No power hoists used.

Rent cherry-picker service.
Hired one for other.

Gas + Volatiles

Bottled O_2 & C_2H_2

Propane

- full to 25%

Nat'l Gas

- fire eye for shut down
on gas failure

Propane in all tank lifts except one.

Are parked outside.

- * * Question of fire eye function testing & inspection
- ** Expand list of areas where Hazardous
Work Permits Req'd