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FROM PLANT SAFETY & HEALTH STEERING COMMITTEE TO MEMORANDUM
ROCKDALE WORKS

1979 March 23 MAR 30 1979

RE: PLANT SAFETY AND HEALTH STEERING COMMITTEE MEETING MINUTES

Date, 1979 March 8, 2:00 p.m., Room 138 Conference Room
Time, Place

Attending: Thomas Williams, Finis Black, Ed Gaas, E. R. Goltra, MD,
Brooks Parker, Dave Smith, Nelson Mueller, Garry Blagg,
Jerry Congleton

General comments were as follows:

1. Lost work day case no. 5 for 1979 occurred on March 2 when Electrician Dutch Biehle was burned while working at the rectifier station. Mr. Biehle was cleaning the disconnect for the positive potroom bus when it went to ground, creating a fireball. He received first and second degree burns to the face, neck, hands, and chest. The wearing of safety glasses and cotton clothing reduced the seriousness of his injuries. Also, the quick action of his co-worker is credited with lessening his injuries. SIR
2. The fire in the rodding room to the butt crusher - This happened because of welding that was going on to build up the hammers. The sparks ignited the soundproofing material installed to reduce noise.

The next meeting of the Plant Safety and Health Steering Committee will be April 5 at 2 p.m.

J. J. CONGLETON

JJC:cw
Attachment

Copy - Plant Safety and Health Steering Committee
F. P. Bergeron/W. J. Drake
Managers
Department Heads
Superintendents
Smelting Safety Managers
J. R. Archibald, Pittsburgh
T. B. Bonney, Pittsburgh
H. D. Belk, MD, Pittsburgh
C. E. Magee, USWA, Rockdale

PLAINTIFF'S
EXHIBIT
AL-1739

ARD 001838



ACTIVE SAFETY PROJECTS

DEPARTMENT PLANTWIDE

RESPONSIBLE PERSON

Item and Brief Description	Status
1. Housekeeping improvement program	Safety and health steering committee appointed sub-committee to develop housekeeping improvement program. Sub-committee has met and prepared proposal. Educational and promotional program to be prepared by 1978 Oct. (Brent Lemons, H.N.Mueller)
2. Safety representative recognition A. Purchase safety caps B. Train safety representatives	Safety caps-fluorescent green- received 78-07-31. Distribution complete 78-09-07. J.J.Congleton to develop safety representative's training program. Estimate completion by 1979 May 1.
3. Gasoline and diesel pump station-main entrance to plant near walkway	Present gasoline and diesel pump station to be relocated. Suggested locations are; (1) vicinity of new vehicle repair shop, (2) across from Properzi building (3) northeast of potroom Line 8. These proposals have been reviewed with R.P. McCracken, Pittsburgh Fire Protection. Review with plant safety and health steering committee at 78-09-21 meeting. In the meantime, enforcement of our present rule prohibiting tank trucks from filling the underground tank at shift change will be emphasized. RFA approved in early 1978 December per W.D.Essary. Estimated completion date - 1979 July 1.
4. Safety rule book format (needs revision)	After reviewing, safety rule loose leaf notebook, general safety rule concept followed by departmental rules, it was agreed to pursue this format. Letters to appropriate areas of responsibility will be written and sent requesting review and submission of final safety rules for their respective areas. A. Crane safety rules - Nelson Fernandes, Ed Gaas B. Tag Out - Garry Blagg, Finis Black C. Welding/Burning - Garry Blagg, Finis Black D. Confined Spaces - Jerry Congleton, Weldon Henson E. Chlorine - Huey Dick, Brooks Parker F. Fire - Thomas Williams, Nelson Mueller G. Visitors - Ike Korenek, Terry Stuller H. Bldg. 66 - Roy Simpson, Jack Leggett Publish safetygram (C.H.Satcher- H. N. Mueller)
5. People not using walkway to and from showers - using the street	Project 80% complete-hopefully will complete and show at April 5 Plant Safety & Health Steering Committee meeting (Dave Smith, Chris Stern, Nelson Mueller)
6. Audio-visual lost work day review for 1978	Start in April (Cholly Weise will schedule)
7. Establish teams to again audit dept. safety & health steering committees	

ARD 001839

ACTIVE SAFETY PROJECTS

DEPARTMENT PLANTWIDE RESPONSIBLE PERSON _____

Item and Brief Description	Status
8. Carbon bouncing off trailers because of rough street and floors A. Milam St. between Bldg. 33 & Room 4 B. West passage ways (1) 18-20 Rooms (2) 26-28 Rooms C. Bumpers on trailers D. Carbon hugger at push-off station	A.B. \$40,000 RFA for passageway floors and street repair work has already started and should be complete 1979 May 01. (Stan Spell) C. Start 79 April 14, estimate completion date - 79 June 16 (Dwight Job) D. Start 79 April 14, estimate completion date - 79 June 01 (Dwight Job)
9. Back Control Projects A. Potrooms - Long handle shovels B. Carbon Plant - Gunnite 100 lb. bags C. Yard Service - Cement 96 lb. bags	Under Study
10. Purchasing of safety equipment at Stores trailer- particularly safety shoes is frustrating because one has to do this after shift because of employee sales hours. 8:00-9:00 a.m. and 3:00-5:00 p.m. Monday through Friday	Under study, J.J.Congleton
11. Coffield junk truck hauling material not secured or tied down. Material has been observed having fallen off along roadside	Jack Fry, Finis Black
12. Number of bathrooms in Bldg. 27 is insufficient for number of people using those facilities- 100 people maximum - 2 urinals and 2 stools.	Garry Blagg, Ed Remaley, Dave Smith

ARD 001840

ACTIVE SAFETY PROJECTS

DEPARTMENT POTROOMS

RESPONSIBLE PERSON HUGH McLAUGHLIN

Item and Brief Description	Status
1. Find another location for breaking up blocks with backhoe-presently located in CY7 west end - dust and noise in Potrooms	Presently being used in Courtyard 15 and sometimes in Courtyard 11 - Under study
2. West end and center passageway and doors being blocked by carbon trailers and potlining trailers (worst situation usually Saturday morning, especially Lines 7 & 8.)	Situation improved slightly - however the main problem comes from the rodding room schedule - present method of scheduling forces building up inventory for weekend consumption.

ARD 001841

ACTIVE INDUSTRIAL HYGIENE PROJECTS

DEPARTMENT POTROOMS RESPONSIBLE PERSON Hugh McLaughlin

Item and Brief Description	Status
1. Pot tenders eating their lunch in potrooms (exposure to fluorides through ingestion)	Project as originally defined is complete. However, additional work is needed. Schedule is as follows: 1. Provide adequate air conditioning in all center passageway lunchrooms by May 1. 2. Provide sink, eye wash, water fountain combination in Lines 1-6 by June 1 3. Start a campaign to eat in the lunchroom - June 1 4. Total compliance with above campaign by September 1
2. Fluoride exposure	1. Proper respirators provided and people trained-complete. (Results of OSHA tests indicated compliance. Mandatory respirator use not indicated.) 2. Evaluation of experimental Rockdale covers complete. Commitment made to new design of covers for Rockdale pots. 3. New covers for Lines 7 and 8 have been ordered
3. Potroom crane cab environment	1. Festoon system design complete, but installation on hold because of cost inequities with present self-storing system. 2. Present self-storing system is installed in rooms 20 and 22 and is operational. Operator acceptance has been marginal at best. 3. Efforts are presently being concentrated on the snorkle system. First such trial completed and successful. 4. RFA to install snorkle system routing in Pittsburgh 79-2-23. 5. All fans and motors on order, promised 4-6 weeks from 79-3-1.
4. Dust from ore bucket filling	1. Side loading bucket has proven inappropriate due to difficulties in filling. 2. The concept of physically moving bucket out of room and under tank discharge appears feasible. RFA for one room to explore this potential will be submitted in preliminary form on 79-3-9.
5. Dust from ore bin filling	1. Design for improved dump gate to be started by Pittsburgh Engineering in 1979 January. It is a Company-wide problem. Schedule of work is being developed in Pittsburgh. Prototype of new bucket to be tested at Badin. Rockdale general arrangement design to begin 1979 February. Rockdale is awaiting design concepts of Badin's bucket from Pittsburgh Engineering.

ARD 001842

ACTIVE INDUSTRIAL HYGIENE PROJECTS

79-3-20

DEPARTMENT SERVICES DEPT.

RESPONSIBLE PERSON Dave Smith

Item and Brief Description	Status
1. Dust from coke blasting flexible riser connections in Potrooms	1. Pangborn refused to quote on blast enclosure. Sanding belt alternatives are being studied. Reciprocating sander received from PEL is being evaluated.
2. Dusting at ore unloading station	1. Investigate standardization of ore cars - complete. Not possible. 2. Investigate use of lean-to obtained from Pt.Comfort to place against rail car during unloading. Does not appear feasible. Complete. 3. Investigate ways of keeping floor hoppers full to avoid intermittent dust clouds when opening rail car hoppers. Project is feasible, but has low priority because of low order of dust exposure. Complete. 4. Evaluate vacuum cleaning vs. sweeping in basement - complete. Dust exposure significantly reduced by vacuum cleaning. Permanent vacuum lines installed and in use. Dust leaks in duct system have been repaired. Complete. 5. Shop order for improved ore blending device (to minimize slugs of fine material in ore stream) has been approved. Installation complete. Equipment performing satisfactorily. Complete. 6. Respiratory protection provided and people trained - Complete. 7. Investigate reducing volume of hoppers to reduce dusting when unloading into an empty hopper. Wooden prototype constructed for evaluation. To be installed 1979-03-23. Awaiting installation.
3. Bag changers exposed to unregenerated	1. Evaluation of English barrier cream complete. Found to be somewhat effective, but not a cure-all. Additional quantities ordered. 2. Evaluation of Airstream helmets complete. Found to be unsatisfactory in this application. 3. Evaluation of cool suit completed. Found to be satisfactory except for weight of the hoses-need lighter equipment. Disposable coveralls and disposable air-supplied hoods and vests with vortex tube being evaluated. System works, but excessive water in compressed air plugs filters in very short time. Water traps have been ordered and evaluated. Concern exists that air volume may not be adequate. Investigation continues. Evaluation in CY160 seemed to be satisfactory with Tripl trap, but additional experience in other courtyards will be necessary to see how effective Tripltrap is in highly wet air.
4. Dust spillage from trash screen-A398 systems and 19X tower	1. Engineering active to develop means of screening ore at ore unloading station. RFA being prepared. Estimate completion 6 months after RFA approval.

ARD 001843

ACTIVE INDUSTRIAL HYGIENE PROJECTS

79-3-20

DEPARTMENT ELECTRICAL ENGINEERING

RESPONSIBLE PERSON Burney Howell

Item and Brief Description	Status
1. Carbon monoxide alarm not installed for plant air compressors that are used for breathing air	1. Installation for monitoring only - Complete 78-02-03. 2. CO monitors are scheduled to be installed on each air compressor by 79-02-28. Each monitor will shut down its related compressor except for the Atomizer. High CO at the Atomizer will alarm there. Installation underway, complete by 79-03-31.

ARD 001844

ACTIVE INDUSTRIAL HYGIENE PROJECTS

79-3-20

DEPARTMENT RODDING

RESPONSIBLE PERSON Bill Eckert

Item and Brief Description	Status
1. Excessive Noise	1. Rodding Room modernization complete. Noise exposure survey completed. Overexposure found, money for noise control included in clean-up RFA. Phase I to be complete 79-04-30. Exposure survey to be done 1979 May to determine need for Phase 2.

ACTIVE INDUSTRIAL HYGIENE PROJECTS

79-3-20

DEPARTMENT INGOT & PROPERZI

RESPONSIBLE PERSON Ted Randa

Item and Brief Description	Status
1. Excessive noise	1. Evaluation of muffled filter box burners completed at ATC. Sample mufflers to be shipped for evaluation. Evaluation at Rockdale complete. Mufflers effective but overly expensive. Inactive. 2. Relocation of whistle at No.3 DC complete. 3. Modification of operator cubicle at No.3 DC to provide sound damping appears feasible. However, muffling filter box burners is a more satisfactory way of reducing noise exposure. No action planned until results of exposure dosimeter survey are available. Survey scheduled week of 78-11-13. Results of dosimeter survey 78-11-13 through 11-15 indicated need for hearing protection at No.3 DC but nowhere else in Bldg. 34. A new operator cubicle for No.3 DC has been ordered. Shop Order by 79-3-31, estimate complete 79-5-31.

ARD 001846

ACTIVE INDUSTRIAL HYGIENE PROJECTS

79-03-20

DEPARTMENT CARBON PLANT

RESPONSIBLE PERSON Bill Eckert

Item and Brief Description	Status
1. Coal tar pitch volatiles exposure mixer floor	1. Provide respirators - Complete. 2. Respirator training -Complete. 3. Implement respirator program - Complete. 4. Mixer door project to be complete by 78-09-15. Complete. 5. Replacement of batch cars with screw conveyors to be complete 79 March. On schedule.
2. Coal tar pitch volatiles exposure, press room	1. Compliance testing of modified lube system - Complete. Results still indicate overexposure. Respirator usage made mandatory for press operators. 2. Area has been retested. Results indicate marginal compliance with OSHA standard. Respirator use still recommended. 3. Engineering considering means of providing additional ventilation. Fabrication of roof cover openings complete. Awaiting installation. Estimated completion date - 79-4-15.
3. Dust from belching of Carbon Plant precipitator	1. Implementation of Research Cottrell recommendations complete. Still had belching. Research Cottrell representative called in and he pointed out a few things needing attention. Unit performance improved. Long-range solution is to replace unit. Engineering on replacement in progress.
4. Inadequate number of drinking fountains	1. Survey made and additional fountains to be provided. Request for money to reinstall fountain in Bldg. 60 and to install 4 additional fountains, one on the east side of each furnace room has been submitted. Shop order approved, engineering in progress. New fountain installed in Bldg. 62. New water line required for 60 (2), 62E, 58E -79 March. Fountains have been installed in 64E and 160W.

ARD 001847

COMPLETED SAFETY & INDUSTRIAL HYGIENE PROJECTS

ITEM AND BRIEF DESCRIPTION	AREA OF PLANT	RESPONSIBILITY	ACTION
(1) Chlorine respirators not available for emergency escape from area	Properzi	E. B. Parker T. J. Randall	1. Respirators placed in area-complete. 2. Training of department coordinators-complete. 3. Training of employees - complete.
(2) No attempt to reduce air flow from plant air system (100 psi $\pm$ 15 psi) being used to blow off pots and superstructures	Plant Wide	W. R. Smith	1. Approved blowpipes issued and unauthorized pipes removed from service - complete. 2. Check material and design to eliminate pipe breakage- complete.
(3) Electric fork truck no. 33-164 had non-approved modification to overhead guard (from four post to three post overhead guard)	Ingot	W. D. Essary	1. Overhead guards on all electric trucks modified to be in compliance-complete.
(4) Violation of respirators standards	Total Plant	E. B. Parker	1. Respirator program developed 2. Departmental coordinators trained-complete. 3. Program implemented- complete.
(5) Floor opening above mixer not guarded	Bldg. 127.	D. L. Smith	1. Install permanent guard - complete.
(6) Asbestos exposure	Potrooms	F. H. Sutton	1. Asbestos-free siphon gasket evaluation - complete. 2. Asbestos millboard - discontinued. 3. Discontinue use of compressed air to blow out brake drums- complete.
(7) Pitch fumes from hot packing material placed on green carbon in baking furnace pits	Carbon Plant	J. W. Havins J. L. Roddy T. Williams	1. Lengthen firing cycle in old furnaces when new furnace is in service - complete. 2. Purchase new fluid coke boxes for old furnaces - complete.

ARD 001848

COMPLETED SAFETY & INDUSTRIAL HYGIENE PROJECTS

ITEM AND BRIEF DESCRIPTION	AREA OF PLANT	RESPONSIBILITY	ACTION
(8) Dust from blowing off deck plates	Potrooms	F. H. Sutton	1. Change practice to provide for cleaning of deck plates with brooms and shovels - complete
(9) Dust from blowing off superstructures out for maintenance	Potrooms	D. L. Smith	1. Establish practice of sweeping and blowing off superstructures to minimize dust - complete.
(10) Inadequate dust clean-up	Potrooms	F. H. Sutton E. Gaas	1. Sweeping schedule modified and sweeper operators instructed to empty sweeper and shake bags more often - complete.
(11) Dust from bath crushing and handling	Potrooms	F. H. Sutton E. B. Parker E. Gaas	1. Sweeping done more frequently, but no immediate engineering solution to control dust has been found. Long range solution lies in replacing bath crushing facility. In meanwhile, equipment operators in bath crushing area have been issued Airstream helmets - complete.
(12) Dust leaks in dense phase ore transport system	Carbon Plant	D. L. Smith T. Williams	1. Establish practice to provide for rapid shutdown and repair of leaks - complete. 2. Ceramic elbow sections evaluated and approved - being installed on a replacement basis - complete.
(13) Silica dust from brick saw being used by contractor	Carbon Plant	T. Hormuth	1. Material being cut was cardboard - no silica problem - complete.
(14) Need to identify areas of exposure to harmful air contaminants	Entire Plant	E. R. Goltra, MD E. B. Parker	1. Sampling program implemented and is a continuing process - complete.

COMPLETED SAFETY & INDUSTRIAL HYGIENE PROJECTS

ITEM AND BRIEF DESCRIPTION	AREA OF PLANT	RESPONSIBILITY	ACTION
(15) Hypertension (high blood pressure) among employees	Entire plant	E. R. Goltra, MD	1. Dr. Goltra assists in hypertension control program through annual physicals of all employees and program is continuing - complete.
(16) Not enough parking places and excessive speed in parking lot	South Parking Lot	W. D. Essary	1. Restripe parking lot and install speed bumps - complete.
(17) Chlorine fumes from Ingot Plant furnace stacks	Ingot Plant	G. G. Owen T. J. Randall	1. Minimize furnace fluxing through use of in-line metal processing A. Equipment has been installed at No.3 DC B. Equipment has been installed at No.2 DC C. No plans to install equipment at No.1 DC
(18) Blowing out potshells for patching	Potrooms	D. L. Smith	1. Establish and enforce practices of cleaning out with brooms and shovels. Use air to blow out cracks that can not be cleaned with brooms and shovels - complete.
(19) Dust at butt crusher	Carbon Plant	J. L. Roddy T. Williams	1. Installation of new butt crusher complete. 2. Production equipment to be interlocked with dust collection equipment by 1978-08-15. Complete.
(20). Pitch burns from dust leaks in A446 regenerators	Carbon Plant	G. Johnson	1. Redesign of one regenerator complete Capacity and performance of redesigned unit greatly improved. 2. Two new regenerators to be placed in service in late April or May. Problems with units' insulation have delayed their full use. 3. Improvements in system's operation have eliminated the problem. Complete.

COMPLETED SAFETY & INDUSTRIAL HYGIENE PROJECTS

ITEM AND BRIEF DESCRIPTION	AREA OF PLANT	RESPONSIBILITY	ACTION
(21) Blowing dust from baked carbon on temporary conveyor	Rodding Room	G. Johnson T. Williams	1. Temporary conveyor removed, however blow-off was moved to another area along new conveyor. Solution to problem lies in improving effectiveness of carbon cleaning machines. Work complete.
(22) Silica exposure during gunnitting of flue walls	Carbon Plant	J. L. Roddy T. Williams	1. Personal exposure tests indicated occasional overexposure. Respirator use made mandatory. Complete. 2. Still have problem with skin irritation. Barrier cream appears most effective protection. Complete.
(23) Vehicle operating and maintenance program	Plant Wide	T. J. Randall	1. Safety and Health Steering Committee appointed sub-committee to develop program for vehicle operation and maintenance improvements. Sub-committee has met and recommended that Safety and Health Steering Committee handle the matter. Complete.
(24) Inadequate clean-up of regenerated alumina spilled from A446 units and regenerators in Courtyards 58,60,62	Carbon Plant	D. L. Smith H. N. Mueller W. G. Henson	1. Evaluation of ice cream cart Tennant sweeper complete. Equipment did not perform as hoped. brooms and shovels still best way of cleaning up in tight spaces. Complete. 2. Evaluate small supersucker. Vacuum attachment fabricated and tried. Slow, but effective. Some modifications may be needed. Will be used in connection with manual methods. Complete. 3. Coordination of waste removal improved. Continuing attention required. Complete.

COMPLETED SAFETY & INDUSTRIAL HYGIENE PROJECTS

ITEM AND BRIEF DESCRIPTION	AREA OF PLANT	RESPONSIBILITY	ACTION
(28) Recognition brochures	Plant Wide	J.J.Congleton	4. Engineering looking at ways of reducing wet beds. EE working on 4 zone control. ME looking at possibility of using potable water for sprays. This will reduce instances of dumping wet ore into the courtyards. Since clean-up is now considered adequate, project as originally stated is complete. 1. Printed and distributed by supervisors at departmental safety meetings. Complete 78-06-29

Item and Brief Description	Area of Plant	Responsibility	Action
29. Dust from blowing off superstructures when slipping jacks	Potrooms	H. McLaughlin E. Gaas	1. Use of 30 lb. air to blow off is most effective way of cleaning found thus far. Ultimate solution lies in reducing ore spillage when filling ore bins. Since there is no other apparent solution to problem, item will be removed from the active list.
30. Dust from blowing off cranes in potrooms	Potrooms	W.T.Eckert	1. Vacuum cleaning not satisfactory. No other apparent solution. Item will be removed from active list.
31. Coal tar pitch volatiles exposure (Carbon Plant)	Furnace Room	E. B. Parker	1. OSHA samples indicated compliance. Alcoa samples showed borderline results. Should be retested after conditions stabilize. Retesting complete. No overexposure indicated - complete.
32. Dust from ore belt transfer points	Service Dept.	D.L.Smith	1. Improved dust collection designed and complete.

COMPLETED SAFETY AND INDUSTRIAL HYGIENE PROJECTS

Item and Brief Description	Action
33. Ditch Road - Detour A. Oil on roads bleeding B. Evaluate installing guard rail to prevent autos going into lake C. Fill in holes on bypass lake road D. Dust from the bypass lake road	To investigate and take appropriate action. Covered roads with slag, watered both morning and afternoon. Road detour removed 1979 February. Roads will be improved as weather and construction activity allow. Complete 1979 February. J.J.Congleton
34. Safety Billboards A. Temperature hard to read B. Cannot tell which dept. had Lost Work Day Case	Paint center needle red to help identify present temperature. When the lgith is turned on a 1& will be added to the number column for the dept. having suffered the Lost Work Day Case - i.e., Potlining 1&4 (H.N.Mueller)
35. Numerous low-profile type vehicles such as bicycles, scooters, payload-ers, mowers, small tractors, and some fork trucks have been involved in several accidents and near-misses in the last few years. One of the reasons is poor visibility.	Purchase 1,000 bicycle falgs of a bright orange color with green safety logo, ALCOA, and "Drive Safely" printed on them. (1) 500 for in-plant use (2) 500 for employee sales - Alcoa will share in the expense and offer them to employees at the reduced price of \$1 each. (Promote off-the-job safety.) Complete
36. Lights on vehicles	Vehicle lighting policy - complete
37. Lights from Room 134 that shine on street - one out of seven working	W.O.# 6618, 79 March 21 - Lights all working per E. V. Patschke/Bob Thompson 79/3/23
38. North road curve is sharp and needs a reflective curve sign and relocated further north	Sign ordered - P.O. 698984 (W.J.Davis) Complete

COMPLETED SAFETY AND INDUSTRIAL HYGIENE PROJECTS

Item and Brief Description	Action
39. Have Mr. Leonard Ring, Auckland, New Zealand, recognized internationally in the prevention and control of back injuries conduct lectures and tours for Rockdale	Back Control Program - February 26 to March 2 14 Safety Meetings with 1550 management & hourly employees-1 hour 5 Management Meetings with 129 management employees - 2 hours 1 Engineering Meeting with 40 engineers & drafters - 2.5 hours Tours with superintendents of respective areas to look at material handling jobs - 14 hours Community relations and spouses and friends lecture on Weds., Feb. 28 from 7:30-9:30 p.m. at Rockdale High School Auditorium-1.5 Hrs. Rotary Club - Rockdale, 20 people, 0.5 hours Total People Attending - 1,778 Complete 14 Hrs. 10 Hrs. 2.5Hrs. 14 Hrs. 1.5Hrs. 0.5Hrs 42.5 Hrs
40. Potline scrubbers plugged causing gas to fill up east end, room 4	Regarding potline scrubbers, mechanical maintenance is responsible for inspection, cleaning and operation (Steve McFaul) Complete 1979-02-08
41. Inadequate cleanup of regenerated alumina spilled from A446 units and regenerators in Courtyards 58,60,62	Evaluation of ice cream cart Tennant sweeper complete. Equipment did no perform as hoped. Brooms and shovels still best way of cleaning up in tight spaces. Complete. Evaluate small supersucker. Vacuum attachment fabricated and tried. Slow, but effective. Some modifications may be needed. Will be used in connection with manual methods. Complete. Coordination of waste removal improved. Continuing attention required. Engineering looking at ways of reducing wet beds. EE working on four zone control. ME looking at possibility of using potable water for sprays. This will reduce instances of dumping wet ore into the courtyards. Since cleanup is now considered adequate, project as originally stated is complete.
41. Bldg. 403 airslide crosses over stairway. This causes a head-bumping hazard. Need some sort of warning device.	Painted for hazards - Complete (L.E.Tate)