

ACTIVITY HAZARDS ANALYSIS

Date Prepared 03/27/2006

Project ALUM CREEK LAKE

Job WELL INSPECTION

E = Extremely High Risk
 H = High Risk
 M = Moderate Risk
 L = Low Risk

Prepared By: ACS STAFF

Reviewed by:

Risk Assessment Code (RAC):

Recommended Protective Clothing and Equipment:

Safety toe boots, hard hats, goggles, climbing harnesses with front and rear D-ring, 3' lanyards, gloves, flashlights/lanterns/headlamps, public safety barricades, handheld radios, air monitor.

SEVERITY

Catastrophic	Text
	Text
	Text

JOB STEPS

HAZARDS

ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS

EM 385-1-1 (PARA REF)

PROBABILITY				
Frequent	Likely	Occasional	Seldom	Unlikely
E	E	H	H	M
E	H	H	M	L
H	M	M	L	L
M	L	L	L	L

1. Barricade/restrict public access to work area.

1. Back injuries, slips, trips, falls, while setting up barricades, ropes and warning signs.

1. Use proper lifting techniques. Maintain uncluttered work areas. Be attentive around small work areas.

2. Close intake gates and open outlets and cross-over gates. (Shut down of water supply previously arranged.) Open water supply drain (City of Columbus). Lock-out all gate controls. Verify lock out at water plant to prevent backflow of water from plant.

2.a. Electrical shock.
 2.b. Sewer injury/fatality caused by gate operation with personnel in well or backflow from water treatment plant.

2.a. Ensure proper maintenance of electrical panels. Stand on insulating mats when operating electrical controls.
 2.b. Use of lock-out tag-out techniques to prevent accidental operation.

3. Open hinged grating covers on top of wells.

3.a. Back injury.
 3.b. Crushed toes or fingers.
 3.c. Falls into opening.

3.a. Use proper lifting techniques. Minimum of two persons shall lift and verbally acknowledge timing of lift.
 3.b. Two persons shall verbally acknowledge clearance of body parts prior to releasing grating at resting point.
 3.c. Area will be barricaded from public and only necessary workers will be on-site.

(Previous Edition Obsolete)

SO

ACTIVITY HAZARD ANALYSIS

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	EM 385-1-1 (PARA REF)
<p>4. Access motor platforms.</p>	<p>4.a. Falls. 4.b. Head injury from falling objects.</p>	<p>4.a. Use caution when climbing fixed ladder from top to motor platform. 4.b. Wear protective hard hats when working below others. Lower tools and supplies via bucket and rope. Keep tools away from edge of opening.</p>	
<p>5. Open platform grating, enter well, install hand rails, pressure clean/hose down silt and debris.</p>	<p>5.a. Slips, trips, falls from ladders. 5.b. Slips/falls from well platforms. 5.c. Abrasions, cuts from debris in well. 5.d. Illness from air hazard.</p>	<p>5.a. Wear full body harness with ladder positioning device when on ladders. Use 6' lanyard as temporary tie-off when mounting tops of each ladder. 5.b. Use extreme caution while on platforms to install rails. Single person shall be attached to SRL from top of well to install rails. 5.c. All persons entering well shall wear heavy gloves and personal coveralls (if available). 5.d. Due to flow through ventilation, air hazards routinely are not a problem. As a preventative measure, an air monitoring device will be lowered by rope in advance of personnel to verify absence of air borne hazards.</p>	
	<p>5.e. Injury from being struck by falling object. 5.f. Eye injury from splashed debris while cleaning.</p>	<p>5.e. Same as 4.b. (wear hard hats). Handrails shall be lowered to each level in advance of employee. 5.f. Wear goggles during hose down. Spray at or below working level only.</p>	

ACTIVITY HAZARD ANALYSIS

Project: OR-ACS

Job: WELL INSPECTION

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR	EM-385-1-1
<p>6. Enter wells, perform inspections and exit.</p>	<p>6.a. Falls from ladders, platforms and slippery surfaces.</p> <p>6.b. Abrasions, cuts from sharp edges, debris, etc.</p> <p>6.c. Injury from being struck by falling objects.</p> <p>6.d. Illness from air hazard.</p> <p>6.e. Drowning or severe injury from gate failure or accidental opening.</p>	<p>6.a. All entrants must wear full body harness with ladder positioning device when on ladders. Use 6' lanyard to tie off when mounting ladders. (Each entrant will have added option of SLR attached to grab bar at top of well.) Wear lug sole shoes and gloves while on ladders.</p> <p>6.b. Wear gloves, long sleeves, to protect from sharp edges such as zebra mussels and miscellaneous debris.</p> <p>6.c. Wear hard hats and goggles, while on all lower levels and in outlet works.</p> <p>6.d. Air monitor shall be lowered in advance of first entrant and kept at lowest level during entire inspection. No less than two personnel will be at lowest level at one time. Two-way radio communication shall be maintained with designee on top of well in case of illness. Local trained rescuers shall be notified if necessary.</p> <p>6.e. Maintain records of hydraulic steel inspection certifications as necessary. Maintain lock-out tag-out procedure, so gates are not accidentally activated.</p>	<p>7.a. Use caution when removing rails from brackets. One employee shall remove rails and secure for lifting. Employee shall be attached to SRL and wear ladder positioning gear when ascending well.</p>
<p>7. Remove railings and re-water wells.</p>	<p>7.a. Back injury, muscle strains, falls, slips.</p>	<p>7.a. Use caution when removing rails from brackets. One employee shall remove rails and secure for lifting. Employee shall be attached to SRL and wear ladder positioning gear when ascending well.</p>	

ACTIVITY HAZARD ANALYSIS

Date Prepared: 03/27/2006

Project: OR-ACS

Job: WELL INSPECTION

JOB STEPS	HAZARDS	ACTIONS TO ELIMINATE OR MINIMIZE HAZARDS	EM 385-1-1 (PARA REF)
<p>7. Remove railings and re-water wells. (continued)</p>	<p>7.b. Struck by accident</p> <p>7.c. Drowning during re-watering.</p>	<p>7.b. Wear hard hat and goggles. Rails shall be lifted only after employee ascends to next platform. No rails shall be lifted or lowered above an employee.</p> <p>7.c. All employees must be accounted for prior to re-watering of wells. All gate controls will remain locked-out until all personnel have exited the wells and the grating on the motor level is closed.</p>	
<p>8. Exit motor level platform, close and secure gratings and remove barricades.</p>	<p>8.a. Back injury.</p> <p>8.b. Crushed toes or fingers.</p> <p>8.c. Falls into opening.</p>	<p>8.a. Use proper lifting techniques. Minimum of two persons shall lift and verbally acknowledge timing of lift.</p> <p>8.b. Two persons shall verbally acknowledge clearance of body parts prior to releasing grating at resting point.</p> <p>8.c. Area will be barricaded from public and only necessary workers will be on site.</p>	
<p>A pre-work safety meeting shall be held with all participants to review this JHA/AHA, the SOP for Entry Into Lake Outflow Tunnels, dated 22 August 2002, and other pertinent procedure such as radio use, lock-out tag-out and decription of required safety equipment.</p>			