



US Army Corps
of Engineers
St. Paul District

Crosscurrents

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Lock & Dam No. 7 takes its turn for dewatering

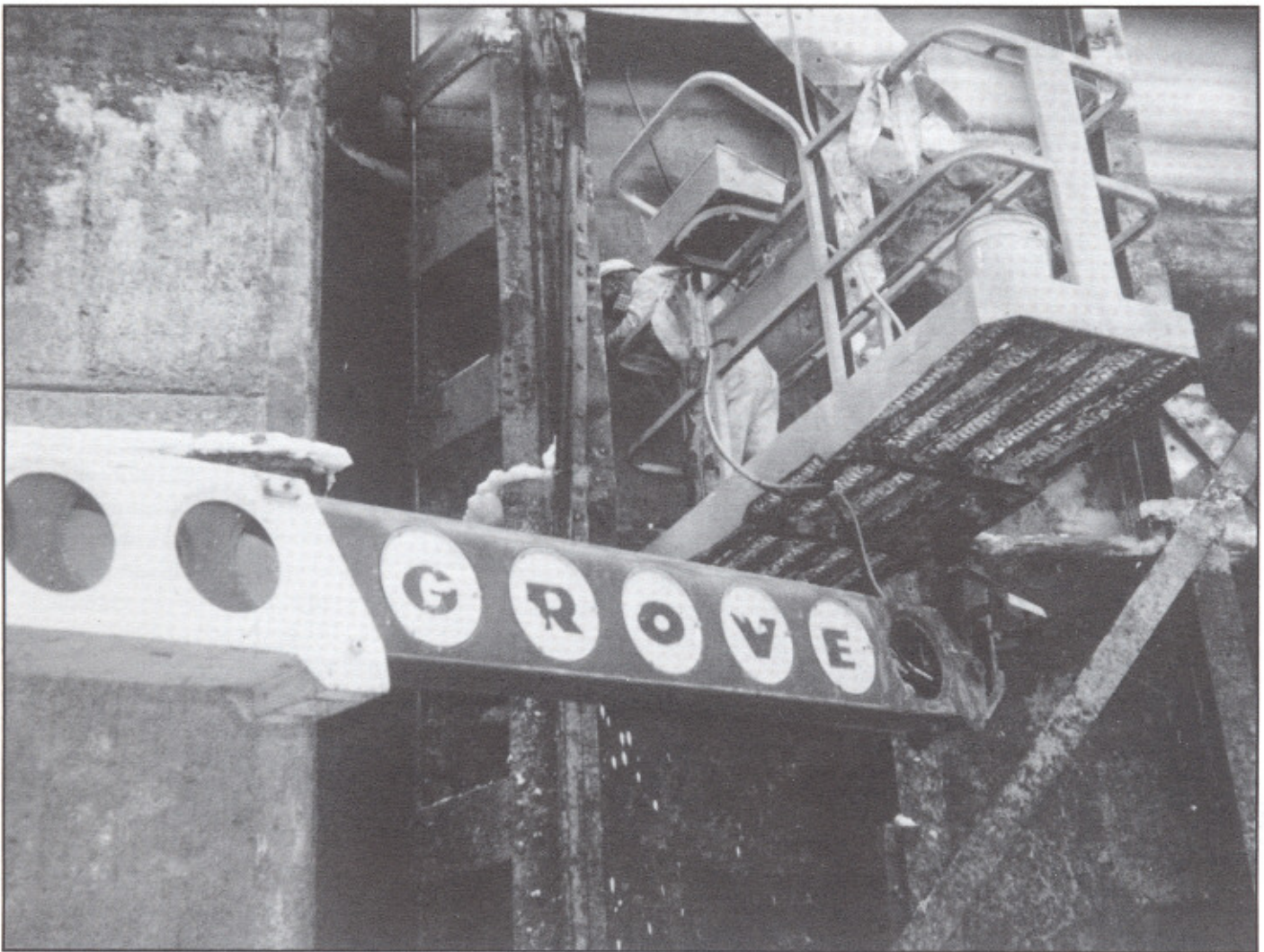


Photo by Ken Gardner

Major maintenance began on Lock & Dam No. 7 at the closing of the navigation season on December 1. Locks & Dams Nos. 2-10 are undergoing a 20-year, \$250 million major maintenance/major rehabilitation.

The hired labor crew from the Fountain City Service Base dewatered the lock in early December. For more on Lock and Dam No. 7 and the Lake Onalaska Project, see page 7.

District conducts quality "climate" survey

by Bruce Carlson, PE-M

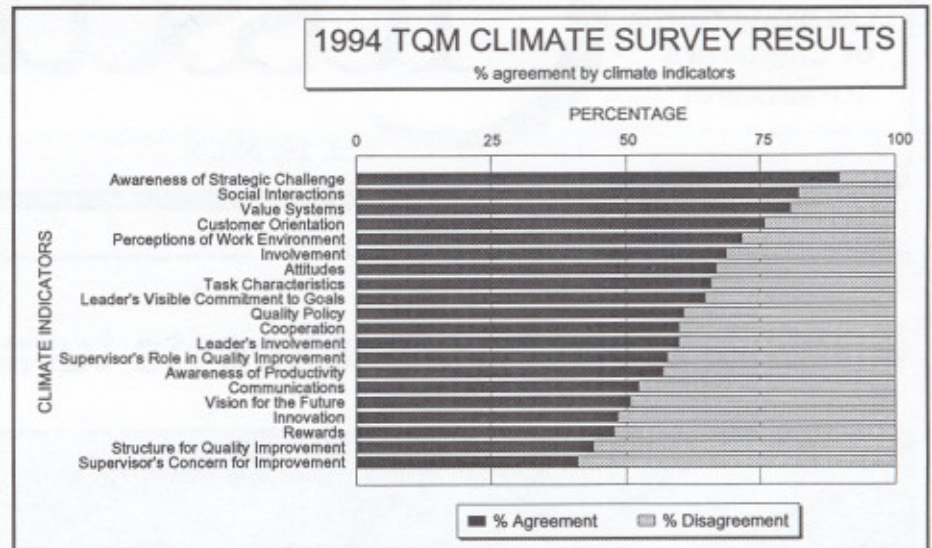
The St. Paul District recently completed a survey to ascertain the "climate" for quality within our organization. The survey is one important aspect of the Total Quality Management (TQM) initiatives being pursued by the district.

"Our district is beginning its journey into TQM in order to create a better place to work and to become a more competitive organization," said Al Geisen, formerly the district's TQM coordinator. "This will allow us to better position ourselves for future work, and to help assure that we continue doing the best job possible in meeting our mission."

Geisen ended his assignment as TQM officer on December 30, 1994 and returned to his permanent position as Chief of the Cost Engineering and Specifications Section. The new TQM Coordinator is Tom Heyerman, who will split his time between TQM duties and Value Engineering.

The survey was given to 80 randomly selected permanent employees in the district and field offices in mid-October. The employees were asked to convey their observations and opinions about quality in the district. Response to the survey was excellent, with 67 persons completing the questionnaire (a response rate of nearly 85 percent).

The questionnaire contained 58 statements, and respondents recorded their level of agreement or disagreement on a six-point Likert scale. When grouped for analysis, the answers result in 20 separate



indicators of the "climate" for quality.

The questionnaire used was developed for the Dept. of Defense (DOD) in the early 1990s. It has been used extensively throughout DOD and the Corps. "Although this survey is not a perfect instrument, it helped to identify some of our strengths and weaknesses," Geisen said. The survey will be administered annually to help determine where the district has improved and where further improvement is needed.

Strengths and weaknesses

The district's strengths were identified as the areas of "awareness of strategic challenge," "social interactions," "value systems," and "customer orientation." For each of these areas, more than 75 percent of the respondents agreed overall with the statements.

The weakest scores were in the areas of "rewards," "innovation," "structure for quality improvement,"

and "supervisor's concern for improvement."

Distributions of these results are shown in the table (above).

"The results are not surprising for an organization that has not formally implemented TQM," Geisen said. "They are encouraging in that they show we have a sense of mission, a strong value system, that we interact well with one another in our immediate work units and that we generally know who our customers are. We now need to focus more on creating a quality structure, encouraging more innovation, and asking for more employee input in improving our business processes. TQM will provide this focus."

A copy of the survey results and related information has been placed in the district library for review by persons who have greater interest in the results. Field personnel or persons with additional questions can contact Bruce Carlson, PE-M via CCMail or phone (612-290-5252).

Outreach efforts give others holiday cheer



District employees contributed to a number of outreach programs for the holidays. In the photo at left, Dave Berwick and Virginia Gnabasik from Management and Evaluation Branch, bag presents for Santa Anonymous.

Photo by Peter Versteegen



Photo by Pamela Spann

Above, Lupe Santos and Mary Hendrickson coordinated gifts for five needy families through Neighbors, Inc.



Photo by Pamela Spann

When the deadline arrived, employees volunteered to carry the many gifts for pickup by Neighbors, Inc. From left are Bill Venne-mann, Real Estate (RE); Deb Bertrand, Resource Management (RM); Lynn Stebe, RE; Marcia McCloskey, RE; Martin Frawley, RE; Dave Koepsell, RM; and Lupe Santos, Human Resources. In Construction-Operations (not pictured), Denise Blackwell-Kraft coordinated gifts to families through Ramsey County Human Services Department.

Locks and dams crews gird for emergencies

by Rosemarie Braatz, Construction-Operations

In addition to locking through thousands of vessels in a season, the people who staff our locks and dams are called upon to respond to the many emergencies that are generated by the combination of people and the river.

At St. Anthony Falls, for example, located in the heart of Minneapolis, some 45 emergency-type calls were received during the year.

"These could be anything from a tipped boat, a body floating in the river, a suicide jump from the bridge, or a stalled boat motor," said Lockmaster Bob Stahl. "We get the first call anytime some kind of emergency occurs on the river."



St. Paul District photo

Lock Operators John Mena (left) and Greg Yale, stand alongside one of the launches tied to the upper guidewall at St. Anthony Falls. Mena recalled a rescue where a boater had "replaced his old boat because the engine kept stalling. So then he pulled into the lock, and the engine on his new boat stalled," said Mena. "We had our boat tow him out."

Assistant Lockmaster Steve Lenhart points out that the calls don't always involve launching the lifeboat. "They'll call us for any kind of trouble on or along the river, and sometimes we'll initiate a call. It could be an indigent passed out on the road, disorderly behavior, or kids throwing rocks from the bridge."

A major river emergency that occurred in 1991 brought St. Anthony Falls locks and dams into the limelight when lock operators Jim Nelson and Chris Granum went to the assistance of people spilled into the river as their boat flipped over the falls. One person drowned, but quick action on the part of the lock operators and other emergency units resulted in the rescue of three others.

Boat plunges over dam

That, plus another incident in 1992 when Lock & Dam No. 1 personnel assisted in pulling several people from the river after a small watercraft went over the dam, instigated upgrading of the rescue launches at the district's locks and dams.

"We have two new Sea Arks, a 19-footer with twin 60 horsepower engines, and a 17-footer with twin 50s," Lenhart said. "We opted for twin engines particularly because of the danger of stalling above the dams."

"It can be very treacherous out there on the river, in high and turbulent water, above the dams, in stormy weather and in the dark," said Lenhart.

"Any employee who feels that the situation is unsafe may make the decision not to participate in a river rescue—our first priority is to retain one person at the lock and dam site," said Dennis Cin, chief of Navigation Branch. "A lock and dam employee may assist in many ways other than by rushing out in the lifeboat. Notifying and coordinating between emergency responders, assisting them in launching the boat, and operating the lock and dam gates is essential."

Mandatory training

Mandatory safety training was begun in 1991 for all district employees who were licensed to operate small

Emergencies, cont. next page

Whirlpool forms, buildings and mills fall in river

Second in a series on the history of the district and the Corps of Engineers. The first article told of futile efforts to plug a whirlpool which formed with the collapse of the Eastman tunnel under the Mississippi River. The whirlpool had just swallowed a network of rafts.

by Jane Carroll, historian

According to one local newspaper, the whirlpool in the Mississippi "tossed huge logs as though they were mere whittlings," standing them on end "as if in sport" before swallowing them.

The failure of this initial attempt to save the falls made it clear that a more permanent solution was needed. A temporary dam was completed by the end of October, 1869, while mill owners and citizens of the two cities debated long-term solutions to the problem.

River takes mill and buildings

During the winter and spring of 1869-1870, the St. Anthony Company worked to repair the tunnel and to protect damaged areas near its property on Hennepin Island. A flood in April, 1870, destroyed these repairs. Flood water and debris raced through the old tunnel,

scouring out the sandstone under the mills on the downstream end of Hennepin Island. The limestone cap soon collapsed and several mills and other buildings fell into the river.

The progressive deterioration of the falls continued and the end of the limestone bedrock was drawing near. Without a dramatic preservation effort, St. Anthony Falls would quickly disappear.

Corps initiates repair of falls

The St. Paul District Office of the U.S. Army Corps of Engineers had just been established three years when the Eastman Tunnel collapsed in 1869. In response to the disaster, the Corps hired an engineer, Franklin Cook, to survey the damage and recommend actions that should be taken to preserve St. Anthony Falls. At the time, the Corps had no authority from Congress to work on the falls and could not obtain such authority unless the project was related to the Corp's navigation mission.

Cook recommended the construction of a timber apron to prevent further degeneration of the falls as well as the construction of a dam near the edge of the waterfall to maintain a constant level of water over the limestone cap to prevent freezing and cracking.

Next month: Corps seeks Congressional authorization.

Emergencies, cont. from p. 4

boats, 26 feet and under, unless they were already licensed by the Coast Guard (as is required for all who operate the larger Corps vessels, such as the dredges, survey launches, and tenders).

The instructors attend a stringent 40-hour course to prepare them for teaching the annual three-day Small Craft Safety and Handling class.

The small-craft training in the district is administered by Safety Officer Ron Scott, also an instructor. Other instructors are Fred Maule, Lock & Dam No. 4; Pat Duval and Mike Myhre, Lock & Dam No. 7; Timm Rennecke, Leech Lake; Steve Odegaard, Baldhill Dam; Kevin Berg, La Crescent; and Joe Lechner of Hydrographic Surveys.

"We use various types of Corps boats, with different engines, so that the class members become acquainted with the configuration of each. We spend two days on the water, and one day is dedicated to teaching survival and rescue techniques in the water," Duval said. The course is generally held at La Crosse, Wis., where classes use the Black River. A nearby motel donates the use of full-size pool for in-water rescue training.

Instructor Fred Maule said that many students come to the training "thinking that they already know it all, but they soon find out how much they don't know. There's a lot more to safe operation of a small craft than just getting in and starting the engine."

Spychalla leads volunteers in Chilean housing project

by Bill Spychalla, project manager

Editor's note: This past November, Project Manager Bill Spychalla led nine volunteers from Minnesota to a remote area of northern Chile where they built a small residence at a church-sponsored agricultural school.

With remnants of ancient cultures around us, and occasional earth tremors underfoot, we mixed fresh concrete, cut re-bar, made forms, and erected new walls.

The materials, our volunteer expertise and physical labor were contributing to the construction of a residence for visiting parents. We were in Pachia, Chile at an agricultural institute sponsored by the Methodist Church. I was one of nine Minnesotans in a succession of church teams to participate in "Operation Classroom" in Pachia.

We had left Minnesota as strangers. We lived and worked a quarter mile from the village of Pachia, located in an arid mountain canyon in northern Chile. Llamas, alpacas, and some pigs, rabbits, guinea pigs and chickens wandered in pastures and yards nearby.

We spent about two weeks at the Kusayapu Agricultural Institute, where we worked on a house to accommodate four sets of visiting parents. Members of the team also overhauled a water pump, a solar



Photo courtesy Operation Classroom

Bill Spychalla (right), Project Management, installs a window frame in a housing project at the Kusayapu Institute in Pachia, Chile.

energy panel, and tractor. The Kusayapu Institute is run by the Methodist Church of Chile, primarily for the native Aymara Indians of the mountainous rural areas of northern Chile.

Assist students, help parents

The goal of the project is to assist students with the transition of living away from home and to help the parents understand what their children are learning.

The students are not able to travel home to see their parents during the school year and the school does not

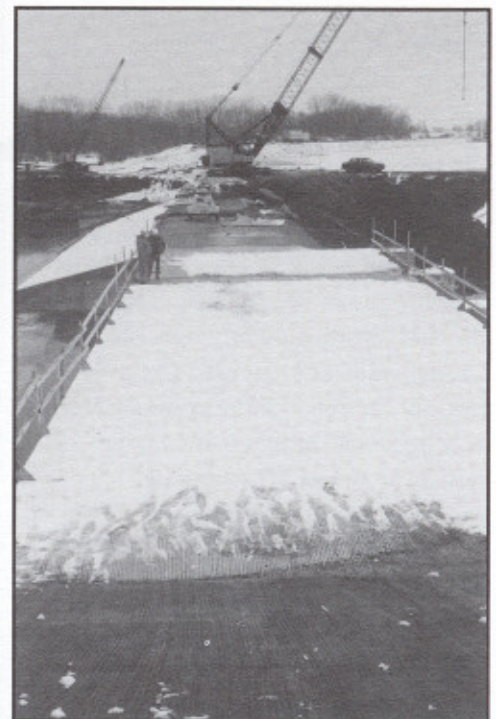
have facilities to allow the parents to stay overnight. Many of the parents travel six to 10 hours to reach the school. With no motels or housing available near the school, parents very rarely visit the students. The funding, and a good part of the labor, needed to build the housing unit was provided by the work team.

Land acquisition for the institute was started in 1988 and classes are now in their third year. This school year 70 students from about 20 villages, some as far as 600 miles away, attended the school. Most students are from families with very

Housing, cont. at right

Major rehab project includes Lake Onalaska spillway

In left photo, Project Manager Bruce Tamte (left) and Lockmaster Terry Jessesky tour the empty lock chamber at Lock & Dam 7 during its dewatering in December. Far right, Resident Engineer Arne Thompson and Tamte inspect the \$3.16 million spillway project at Lake Onalaska. The project, scheduled for completion next December, is part of the Lock 7 dike.



Photos by Ken Gardner

Housing, cont. from p. 6

meager resources and often arrive with very little.

Northern Chile, where the institute is located, is basically a desert similar to Arizona. Every day is warm and sunny all year round. The normal daily high was about 90 degrees, with a low around 60. There has been no measurable rain for years and no significant rainfall in the past four hundred years.

Fine sand and harsh sun

Throughout our visit, fine sand wove into the fabric of our clothes and crept into our sleeping bags. The harsh rays of the sun hammered our eyes, noses, hair, and skin.

This is a land where water is a scarce resource and a full bath is a luxury.

Potable water is a critical problem in the area for two to three months every year. The two weeks that we visited the area was in the middle of the "dry" season. The boulder-strewn dry river bed adjacent to the school carries the melt-water from the snowpack in the high Andes only in the summer.

Floods and earthquakes

Floods and earthquakes endanger the school, and several of the elderly in the village spoke of large floods and jolting earthquakes. A mild tremor with several aftershocks surprised the work team one evening—creating an intense conversation among us.

We saw many artifacts made by civilizations that dated back several hundred years. Mummified bodies in

ancient burial grounds, remnants of ancient villages and terraces, and geoglyphs and petroglyphs abound in the area. (Geoglyphs are made by arranging stones to form pictures.)

By the end of our stay, we had bonded well with the Kusayapu students and staff, our work had made a difference, and we learned to appreciate the needs of the institute. We had acted as Christian witnesses for the Methodist Church.

Our part of "Operation Classroom" ended uneventfully on November 17. Sitting in a plane somewhere between 35,000 and 40,000 feet, a member of our team, Jim Frisbee, observed we had left a culture "where the sureness of foot, the strength of arm and the weather governed existence."

Year in Review

Here are some of the significant events from 1994.

January

The district dedicates the completely renovated Army Corps of Engineers Centre and holds an open house in its new offices at 190 Fifth St., East, in St. Paul. North Central Division Commander Col. Richard Craig (former St. Paul district commander) accompanies District Commander James Scott and Weiming Lu, executive director of the Lowertown Development Agency, in a ribbon cutting. Activities include a reception, office tours, and exhibits.

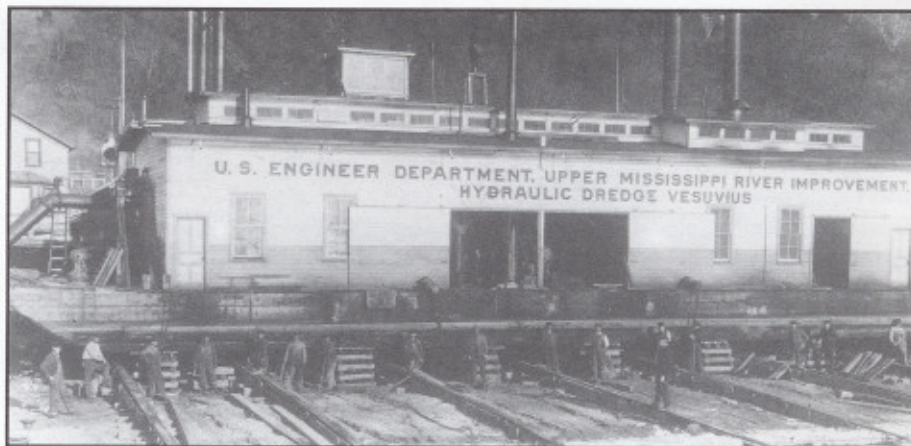
Jim Nicholson, chief of Con-Ops, retired after more than 30 years of service with the Corps. Dave Haumersen becomes chief of Con-Ops; Lou Kowalski becomes deputy district engineer for Project Management and chief of Programs and Project Management Division.

February

Elwin Yoder moves out as chief of Real Estate for job as deputy chief of Real Estate in Los Angeles District.

St. Paul District accepts the lead in a highly visible Floodplain Management Assessment of the Upper Mississippi and Lower Missouri rivers. The assessment includes three Corps Divisions and five districts. Dave Loss heads the five-district assessment team that convenes in St. Paul to brainstorm and plan the \$4 million assessment.

The district celebrates Diversity Appreciation Week for 1993—delayed due to the move to new



The Fountain City Service Base celebrated its centennial with an open house on August 13. The historic photo above shows the Corps' Dredge Vesuvius up on marine ways for maintenance at the base.

offices. The theme is "Learning from Your Past to Discover Your Future."

District observes Engineers Week Feb. 20-26 with presentations to district employees and outreach to schools.

March

Planning Division and Engineering Division merge. The new division is Engineering and Planning (PE).

Due to downsizing, District Deputy Commander Major Chuck Rogers tells employees to expect further cuts in FTEs in the next fiscal years. He answers questions for a standing room only crowd during a brown bag lunch.

Dredge William A. Thompson completes dry dock at the Memphis District and begins its return home to Fountain City, Wis.

Mary Clarkson, Resource Management; Mike Osterby, Engineering and Planning Division; and Marianne Price, EEO Office, receive honors as Civil Servants of the Year.

Commercial navigation on the Upper Mississippi River into St. Paul opens when the Mary H. Morrison locks through Lock & Dam No. 2 in Hastings on March 25.

April

The district and the Minnesota Pollution Control Agency sign a partnering agreement which provides for saving money, expediting projects and sharing data.

The district brings its traveling exhibit to Mears Park in downtown St. Paul for Earth Day on April 22.

May

Minnesota Chapter of Landscape Architects grants a design award for the Soldiers Memorial Field golf course, part of the district's Rochester Project.

District sets up display at City of St. Paul Public Works Department Open House.

June

HQUSACE holds restructuring workshops to define new roles and



Photo by Jon Lyman. Special thanks to Ann Allen and George Fortune for help with identification.

Among the St. Paul District retirees who gathered in St. Paul on December 22 for their annual Holiday Awards Ceremony are, from left: Charley Malmer, Mary Rivett, Dale Lynch, Jan Wallace, Helen Taylor,

Harry Novak, M.T. Erickson, Jim Johnson, Dave Taylor, Ken Harrell, Delores Sudeith, Art Perra, Helen Munson, Art Ettl, Margaret Kincade, Jim Kursu and Bill Goetz. Nearly 250 attended the ceremony.

responsibilities for the different levels of organization within the Corps of Engineers.

Al Geisen becomes the district's first full-time quality coordinator. Ann Allen, assigned as part-time coordinator, resumes duties as Chief of Budget Manpower and Management Analysis Branch.

District employees hold their summer Awards Day Ceremony and Picnic at Ft. Snelling State Park.

The district leads a team that resumes hunt for discarded defense munitions in barrels on bottom of Lake Superior.

District and local sponsor dedicate State Road Coulee Project at La Crosse, Wis.

August

Dr. John Zirschky, acting assistant secretary of the Army for civil works, visits the district on August

10 and holds a town meeting with employees. He also visits the Dredge Thompson as part of a review of the national minimum dredge fleet. During the town meeting, Zirschky honors the outstanding contributions of Steve Adamski, Office of Counsel, and Harold Tagatz, Construction-Operations.

Students' Day on August 10 honors students working at the district and provides parents the opportunity to give their children first-hand examples of their work.

Lock & Dam No. 1, Fountain City Service Base host open houses. The boat yard celebrates its centennial.

The concept for design of displays and interior design of public space for first and second floors receives approvals.

September

Retirees hold 19th annual reunion.

District and City of Rochester dedicate Stage 2a Rochester Project.

The district dedicates a new control building at Lock & Dam No. 4.

October

The district is named one of six finalists for the Corps of Engineers in the Army Communities of Excellence (ACOE) competition.

November

The district holds Diversity Appreciation Week for 1994.

December

The district receives honorable mention among Corps nominees in the ACOE competition, garnering \$25,000 to be disbursed around January 1996.

District employees gather for their annual Holiday Awards Ceremony.

Rivers and Harbors Unit dewater Lock & Dam No. 7.

EEO office offers successful Alternative Dispute Resolution process

by Marianne Price, EEO officer

HQUSACE has recently announced the implementation of a pilot program to test how successful alternative dispute resolution mechanisms are when it comes to employment discrimination complaint allegations.

Between 1993 and 1994, eight districts tested the "Corps of Engineers' Early Resolution Program" (CEERP) as a pilot program. The success ratio was

phenomenal, with a 96 percent resolution rate utilizing CEERP principles versus a 45 percent ratio processing complaints without CEERP. Average dollar cost per case was \$540 under CEERP and more than \$8,000 without. The success in these eight districts prompted the Corps-wide pilot program.

Pilot program starts

The pilot program will be implemented in the St. Paul District

this month. When you pursue concerns through the EEO arena, you will be informed about the CEERP process and the guidelines for having your issues considered under CEERP procedures. Election to engage in CEERP, once the offer is made, is your choice. If you choose not to engage in CEERP, you may pursue your concerns through the normal complaint processing route.

Benefits of participation

The benefits of CEERP, which we hope to emphasize to all involved, are that it allows for the immediate intervention of a third party to assist in:

- reducing tension;
- facilitating communication;
- clarifying issues;
- identifying underlying issues;
- developing appropriate remedies.

The Corps' program is the first alternative dispute resolution (ADR) program implemented in the Army. Other commands are utilizing the Corps' program as their model and a USACE team recently proposed to the Army Director of EEO that the Corps be designated the center of expertise for the utilization of ADR in discrimination complaints processing. A decision is pending.

Throughout the month of January, you will be receiving further information on CEERP. Information sessions in the district office will be held on a weekly basis (field information sessions will be conducted during normal field site visits). Please take a little time to learn more about this program, which could prove useful to you in the future for resolving employment disputes.

Blegen briefs students

Doug Blegen (right), a maintenance worker at Eau Galle Recreation Area and Dam, showed second graders from Spring Valley's Gilman Elementary School the overlook and explained the structure of the dam. Blegen is also the Spring Valley historian.



St. Paul District photo



US Army Corps of Engineers
St. Paul District

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