

## 2007 Energy Act

### **OFMC Addresses Water Usage Through Audits**

To reduce the Bureau's water consumption at the rate called for in the Energy Independence and Security Act of 2007, OFMC will address reducing water use in BIA facilities and will audit water consumption. OFMC's major focus for conservation will be lavatory and kitchen fixtures water use because they are simple and cost-effective to retrofit. For instance, dormitory shower heads can be replaced with high efficiency shower heads which could save 12 gallons per shower (based on the average shower duration of 8 minutes). Solving chronic usage problems, such as water line leaks and the lack of an automatic shut off valve for the water tower at T'iis Nazbas Community School in Arizona, will be a priority.

Draft guidelines for the Act advise agencies to establish a baseline for water usage. OFMC used BIE student enrollment statistics to create a temporary baseline for water use of 125 gallons per day/per capita for 2007. The Act requires



*T'iis Nazbas overflow collects near a dormitory sidewalk.*

audits of water consumption intensity for at least 10 percent of facility square footage annually. (Water use intensity is gallons per gross square foot per year).



*The lack of an automatic shut off valve for the water tower at T'iis Nazbas Community School in Arizona causes periodic overflow until it is manually shut off.*

The Act states: "Beginning in FY 2008, reduce water consumption intensity, relative to the baseline of the agency's water consumption in FY 2007, through life-cycle, cost-effective measures, by two percent annually through the end of FY 2015 or 16 percent by the end of FY 2015."

## **OFMC to Host DOI Construction Costs Symposium April 8,9 in Albuquerque**

In early April, the Office of Facilities Management and Construction will host a symposium on "Understanding the Factors Impacting the Department of the Interior (DOI) Construction Costs." This symposium will explore how to become a better business partner with the construction industry in order to reduce costs, encourage participation in our program and meet our goals of timely and cost effective construction. Participants from both the public and the private sectors—industry leaders, architects and engineers, construction and project management representatives, tribal decision makers, the Army Corps of Engineers, OFMC and OFECR managers, and DOI contracting officials, are all expected to attend. The outcome of this symposium will be the catalyst to undertaking new ways to approach and formulate construction contracts. The symposium will hopefully lead

to changes in our business operations that will save taxpayer dollars and reduce a variety of risks to contractors, architects and engineers, the BIA and DOI.

After a general session, symposium participants will meet in breakout sessions to discuss the issues involved in DOI construction. Participants in the breakout sessions will work to identify concerns and propose resolutions to them. Areas of focus will include Construction Delivery Methods, Infrastructure Needs, Bonding Issues, and Tribal Sovereignty. Other topics will include Sustainable Design and regulatory issues. A general session will convene to present the breakout session findings to all attendees. The two-day symposium will be held on April 8 and 9 at the National Indian Training Center in Albuquerque. For more information, please contact Sandy Lujan, OFMC Training Specialist, at (505) 563-5180.

# Briefs

## Asset Business Plans Will Assist Facility Managers

OFMC is adjusting the format for the Site Specific Asset Business Plans (SSABP), sending individual plans to managers at 123 locations and requesting their updated location asset business plan. The updated plans then will then assist in the determination of funding and program asset priority needs for every location. Each SSABP should reflect asset planning "from the bottom up" by the line official in the field who supervises the management of those local Bureau assets. The goal of the Asset Management Program is to ensure that the Bureau's real property asset management is integrated with facilities management and major program missions, in compliance with the all other applicable public laws, regulations and the President's Executive Order 13327. Asset Business Plans will be updated annually.

## Homeland Security Assessing BIE Schools for Emergencies

Coinciding with national concerns about the need for security at schools and colleges and the ability to communicate quickly throughout a campus during a possible lockdown situation, the Assistant Secretary-Indian Affairs' Office of Homeland Security and Emergency Services is conducting security inspections of BIE schools and BIE's two colleges. The assessments of the facilities are intended to assist facility managers and senior staff in identifying vulnerabilities and making appropriate recommendations to mitigate potential risks. A questionnaire regarding existing security provisions and emergency action plans will precede the physical inspection. Minimum security requirements are prescribed in the Department Manual (444 DM 1).

## 2007 Energy Act Boosts Required Energy Reductions

Government agencies, including the BIA, will be required to reduce facility energy consumption by three percent a year beginning in 2009, according to the Energy Independence and Security Act of 2007. (The former requirement was two percent a year, based on the Energy Policy Act of 2005). Also, the 2007 Act requires a 55 percent reduction of fossil fuel-generated energy consumption (compared with FY2003 consumption rates) for new construction and major renovation of Federal buildings in 2010--and a 100 percent reduction by 2030. Department of the Interior analysis indicates new Federal facilities will have to generate their own power using non-fossil fuel energy sources, such as solar or wind power, to meet the revised goals.

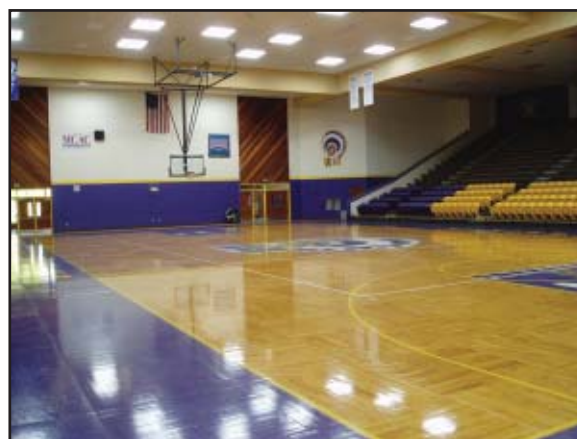
## FMIS Screen Available to Track Monthly Energy Use

Facility managers will now be able to input monthly energy data into FMIS. The utilities feature of the FMIS screen, which was instituted in 2005 to allow annual tracking of a location's energy use, will now also be able to track monthly energy usage. The data will then be available to report on a location's energy use trends and to comply with the Department of the Interior's required Annual Report on Energy Management for the BIA.

	Units	Cost
April	302000	\$16,714.89
May	301215	\$16,170.49
June	300001	\$16,105.32
July	310029	\$16,643.67
August		
September		
October		
November		
December		
January	322800	\$17,866.11
February	335200	\$17,994.95
March	330100	\$17,721.16
Totals	2201345	\$119,216.59

## Haskell Uses Less Electricity After Installing Skylights

Haskell Indian Nations University's electricity bills have dropped considerably since installing skylights throughout the campus. According to FMIS, Haskell spent \$460,000 on electricity in FY 2006. The FY 2008 figure was \$387,000. Haskell Facility Manager Virgil Allen attributes the \$73,000 decrease, in part, to the installation of skylights in the gymnasium, classrooms and other buildings. "We have 369 foot candles of light in the gymnasium during the day, without the electric lights on," Allen said.



*Haskell's gym is aglow using only skylighting.*



## Six New Fire Stations, Built Near Schools, Receive Certificates of Occupancy



*A fire station at Low Mountain is now under construction next to Jeehdeez'a Academy's new replacement school and will soon join the six fire stations that have recently received their certificates of occupancy.*

To ensure fire protection at educational facilities, the BIA's Structural Fire Protection Program has recently constructed six fire stations in Arizona and New Mexico that have received their certificates of occupancy. The heated stations are prefabricated, 1,980 square foot buildings, with two bays, electric overhead doors, smoke exhaust systems, rest rooms and offices. They also have meeting and fire training areas. The six stations are located at Pine Hills School and Crystal Boarding School in New Mexico and at Hunters Point Boarding School, Wide Ruins Community School, Seba Dalkai Boarding School and Naa Tsis 'Ane Community School in Arizona. Other fire stations are now being built, such as at Low Mountain in Arizona, but have not received their certificates of occupancy.

## Navajo Region Fire Fighter Training will be in June; Northern Tier Training in August

Annual fire fighter training is being planned for the BIA and selected tribal fire departments which provide structural fire protection to Bureau-owned and funded facilities. This structural fire fighter training is to ensure fire suppression skills and techniques are maintained for fire emergencies. The sessions are currently planned for Navajo Region fire fighters in June and for fire fighters predominately from the northern tier Regions in August. The training will include introduction to fire fighting, advanced structural fire fighting and fire behavior. Specific training in how to handle liquefied petroleum gas (LPG) emergencies and vehicle extractions will be available at some training locations. For more information, contact Structural Fire Protection Program Manager Edward Abeita at (505) 563-5109.



*Liquefied Petroleum Gas Emergency training.*

## Steel, Modular Detention Cells Used in Fort Belknap Detention Center Renovation



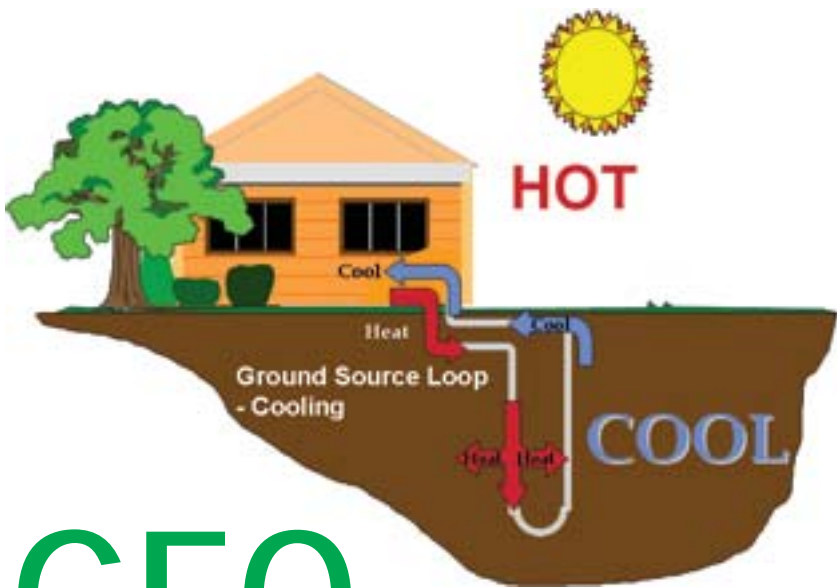
*A pre-fab, stainless steel cell.*

The Fort Belknap Detention Center, in Harlem, Mont., is featuring eight prefabricated, stainless steel jail cells in its renovation project—a first for Indian Country detention centers. BIA Office of Justice Services Associate Director for Corrections Carla Flanagan said the use of modular detention cells stems from the need to quickly meet the growing demand for more detentions centers, due to the increasing number of inmates throughout the country. "The modular cells are a quicker, faster solution, and they are not an inferior alternative to traditional correction center cells," she said.

OFMC Rocky Mountain Regional Facility Manager Bruce Ward said the stainless steel, modular detention cells are code compliant and cost about the same as designing and constructing traditional cinderblock and concrete jail cells. "The stainless steel cell is far easier to clean and especially to remove graffiti, which comes right off. The floor isn't concrete so it doesn't need the expensive coating of epoxy," Ward said. "And the cell doesn't hold odors like a cinderblock wall would."

The Fort Belknap Detention Center is operated through a Pub. L. 93-638 contract with the Fort Belknap Tribe. Tribal Council Member John Allen said the tribe decided to use modular cells because of the remote location of the correctional facility. "We thought it would be easier to get them built by the manufacturer and brought to the site," he said.





# GEO Heads South

Test borings 300 feet down revealed a sand and water mixture conducive to energy transfer under the proposed site of the Red Water Elementary School in Carthage, Miss. School officials decided to use ground source heat pumps in their replacement school

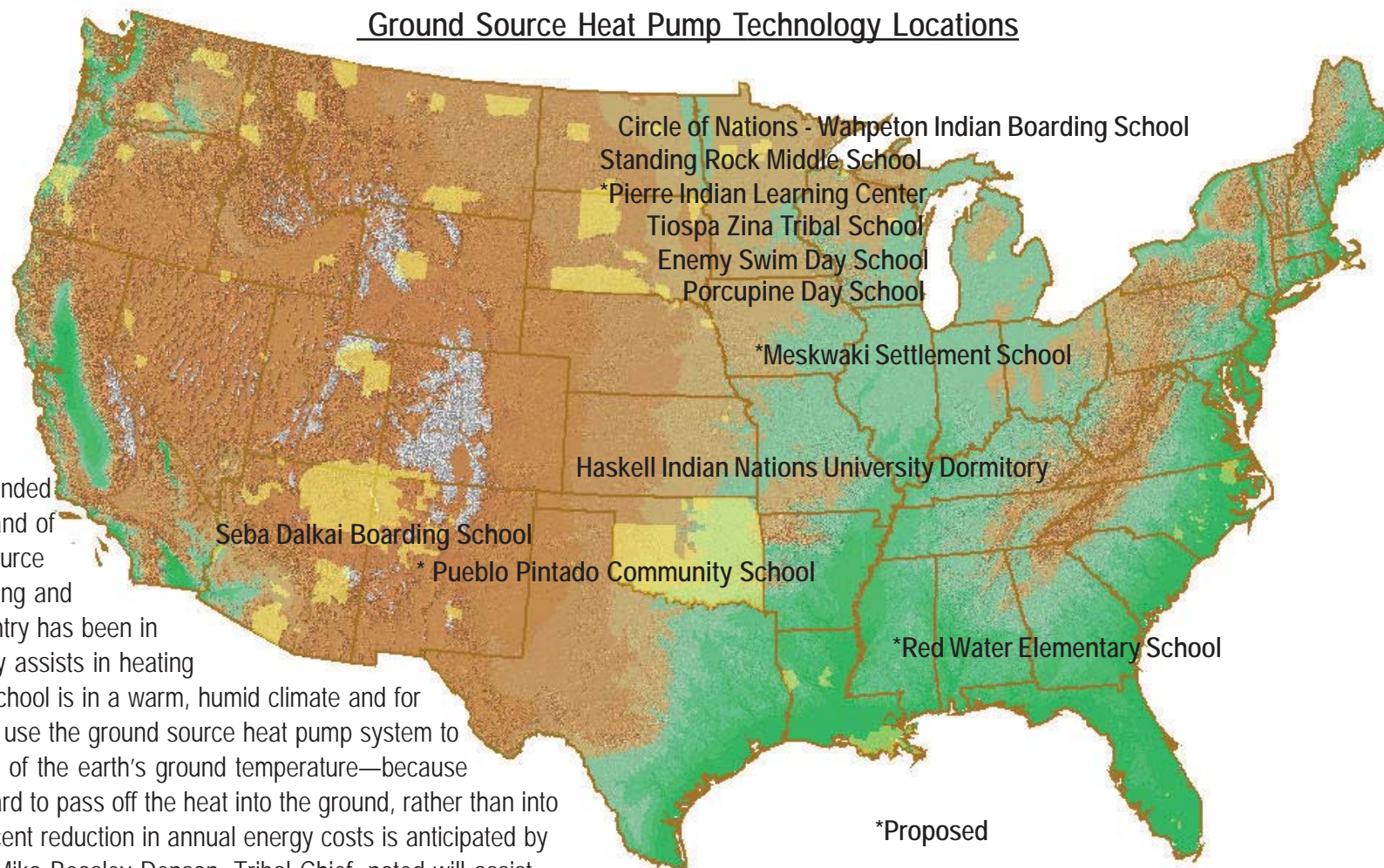


Drilling wells at Red Water site.

construction project, which is being funded by both OFMC and the Mississippi Band of Choctaw Indians. While the ground source heat pump saves energy in both heating and cooling, most of its use in Indian Country has been in cooler climates where it predominately assists in heating classrooms. Red Water Elementary School is in a warm, humid climate and for about nine months out of the year will use the ground source heat pump system to cool classrooms, by taking advantage of the earth's ground temperature—because compressors won't have to work as hard to pass off the heat into the ground, rather than into already warm air. More than a 10 percent reduction in annual energy costs is anticipated by using the closed loop system, which Miko Beasley Denson, Tribal Chief, noted will assist his tribe in meeting the increasing cost of energy.

*Once predominately used to save energy in heating northern tier Indian schools, OFMC-funded ground source heat pump technology is heading south to cool the Mississippi Choctaw's Red Water Elementary Replacement School.*

## Ground Source Heat Pump Technology Locations



Last year, workers at Circle of Nations - Wahpeton Indian Boarding School (above) fused high density polyethylene piping running through a trench that is now covered over.



Gaining heat while underground in the earth, a water/glycol mixture is circulated by pumps (above) to a classroom heat pump (below) where it assists in heating a classroom.

## Energy Costs, Usage Drop at Enemy Swim Day School Due to Ground Source Heat Pump



Enemy Swim Day School Library

Enemy Swim Day School in Waubay, S.D., is saving thousands of dollars using a ground source heat pump, closed loop system for heating and cooling. The annual electricity cost for heating and cooling the 69,000 square foot replacement school is under \$26,700, whereas heating and cooling the same square footage with propane gas would be approximately \$121,000 annually. Energy savings also were realized when the school adjusted its outside air intake. A month after the new school opened, it used 127,000 kW from Jan. 24 to Feb. 22, 2006. With the reduced outside air intake, the school used 89,000 kW from Nov. 26 to Dec. 21, 2007. Besides CO<sub>2</sub> sensors in the gymnasium, the school follows the OFMC School Facilities Design Handbook energy use criteria based on ASHRAE (American Society of Air Conditioning Engineers), which requires at least 15 (cfm) cubic feet of outside air for each student or minimal carbon dioxide levels in occupied rooms of no more than 400 +/- 50 parts per million (ppm) greater than outdoor air.

## Dilcon Anticipates LEED Points With Cooling Tower / Boilers

The Dilcon Community School replacement school project in Arizona has opted for a water source heat pump heating and cooling system, using an open loop water-cooling tower and two boilers. The school decided not to install a ground source heat pump, closed loop system, thus avoiding up-front costs that would be threefold higher for drilling the 250 to 300 bore holes (at a cost of \$1,500 to \$2,000 each) necessary to create a ground source heat pump system. Energy savings and cost savings are still expected with the water source heat pump system, which will earn LEED certification points. The water source heat pump is expected to save 3.4 percent in annual energy costs for the 57,178 square foot school building. The ground source heat pump would have saved 7.7 percent in annual energy costs—but did require higher up-front costs to install. For the 16,695 square foot dormitory, the water source heat pump is expected to save 12.6 percent in energy costs compared to 13.2 percent savings with the ground source heat pump. The OFMC Project Manager is Phil Asmus.





# Focus

## Off-Hour Costs, Liability Are In Facility Use Agreements

New replacement schools often become centers for tribal events and community athletics. As long as these off-hour activities do not interfere with the education program, 25 USC 17a allows school equipment, land, buildings and other structures to be used to benefit Indians. The statute states the school "charge the user for the cost of the utilities and other expenses incurred for the use." The charge doesn't "limit the right of the United States to rely upon sovereign immunity or any State or Federal statutes limiting liability or damages from injuries sustained in connection with use."

Both cost reimbursement and liability are required in OFMC's facility use agreements which are required in the Pub. L. 93-638 or Pub. L. 100-297 contracts and grants with tribes and school boards receiving O&M and Construction funding.



*Sherman Indian High School pool.*

Sherman Indian High School in Riverside, Calif., had community groups using the high school pool and football field. After a 2006 OFMC program review determinations, the athletic department instituted memorandums of understanding for reimbursement with the groups, a form of a facility use agreement. Recently, the

*continued on page 7*



*Jeehdeez'a Academy's main entrance includes an octagonal cultural activity room.*

## Opening of Leupp, Jeehdeez'a Academy Set for Spring

This spring, students are expected to be using the new replacement campuses at Leupp School, Inc., and Jeehdeez'a Academy, both in Arizona. Adjacent to Leupp's new 73,000 square foot campus, a 22,000 square foot dormitory is being constructed that will house 276 students. Jeehdeez'a Academy's 100,000 square foot campus and dormitory at Low Mountain is designed for 313 students. The OFMC



*The replacement campus at Leupp School, Inc., includes preserving the old domed library.*

Project Manager for both schools is Phil Sarracino, a member of Laguna Pueblo.

## OFMC Equipment Planning and Distribution Center Purchases Cribs for SIPI's Early Childhood Center

The Southwestern Indian Polytechnic Institute's Early Childhood Center, funded solely by outside grant funding, will include provisions for instruction in infant care, which has sent OFMC's Equipment Planning and Distribution Center (EPDC) in search of identifying cribs to equip the SIPI facility. The EPDC has purchased equipment for young children, but never before for infants. The SIPI Early Childhood Center, which will be dedicated later this year, will serve as a laboratory-school for SIPI's Early Childhood Education degree program. It will provide child care services for SIPI's low and moderate income students and will be part of a family extension outreach program. The facility will have a toy lending program and a library with an extensive collection of books intended for Indian children. The OFMC Project Manager is Andrew Robinson, a member of the Northern Cheyenne Tribe.



*SIPI's Early Childhood Center.*

## Wingate High School Design Moves to Construction



Replacing the 800-student Wingate High School (rendering) campus near Gallup, N.M., is underway. The replacement campus project is 141,746 square feet for academics and 137,879 square feet for the two new dormitories that will house 512 students. The OFMC Project Manager is Barbara Borgeson, a member of the Comanche Nation of Oklahoma.

## Zia Pueblo School Demolished; San Ildelfonso Awaits

The T'siya Elementary and Middle School at Zia Pueblo (right), built in 1929, was demolished in January (below). Zia students have been attending classes in their replacement school since it opened in 2003. The Southwest Region also demolished a school building at Ohkay Owingeh Community School in January. Demolition of a building at San Ildelfonso Day School was delayed



when New Mexico State Historic Preservation Office officials required OFMC to document the use and design of the historic structure before demolition.



## Winslow, Arizona Dormitory Ready to House Students



The new Winslow Dormitory will house 160 students who attend nearby public schools. The dormitory's front entrance features a traditional hogan design and the exterior and interior colors reflect those found in the nearby desert areas. The OFMC Project Manager is Andy Acoya of Laguna Pueblo.

## Indian Affairs Funds Blue Legs' Pine Ridge Clean Up

In 1989, Mattie Blue Legs was concerned about a landfill getting out-of-control near her Pine Ridge Reservation home. Blue Legs has since died, but now a settlement has been reached in her lawsuit over that landfill, and several others, used by local BIA offices, along with other reservation entities. The Assistant Secretary-Indian Affairs has agreed to partially fund the cleanup of the several reservation landfills.

*continued from page 6*

school ended the use of school facilities by outside groups.

OFMC's Operations & Maintenance funding for schools is calculated by square-footage and anticipated program use during normal school hours. The facility use agreements ensure that the costs for operating the school facilities beyond normal program hours are reimbursed by the community groups or athletic associations involved in the use of the facility. The funds paid to reimburse Operations & Maintenance costs for off-hour activities in a facility go into a O&M account for the individual facility's location.



*The Tiospa Zina Tribal School all-weather track.*

After the replacement school opened in Agency Village, S.D., in 2004, Tiospa Zina Tribal School hosted the South Dakota Northeast Region Track and Field competition for boys and girls on its new all-weather track. Because Indian athletes from the school competed, the event was part of its education program and did not require a facility use agreement.

"The spirit of 25 USC 17a is to allow tribal groups to benefit from the schools being built to operate in the midst of their community," said Charles Thomas, Acting Chief, Division of Operations & Maintenance program. "By requiring facility use agreements, we are ensuring that the schools have enough resources to keep up with the costs that come with outside groups using the facilities. Those costs include higher utility bills, extra janitorial materials and staff hours, and additional upkeep needs that stem from this extra wear and tear on school facilities."

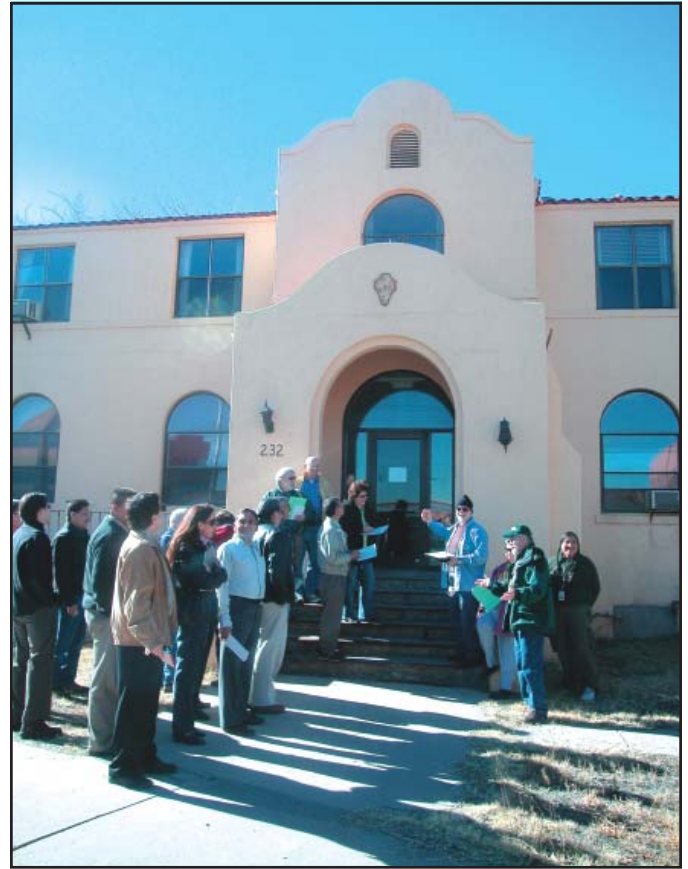


# Facilities Receives Training in Historic Preservation and Environmental Policy

Experts from the Department of Agriculture's U.S. Forestry Service, the Environmental Protection Agency and the Bureau of Indian Affairs' Division of Environmental and Cultural Resources Management provided BIA and BIE facilities staff a February refresher course in current issues stemming from the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

The training helped clarify procedures and lines of authority with respect to OFMC's compliance with NEPA and NHPA standards in its construction projects. It helped facilities staff be aware of the need to complete environmental analysis and evaluations of possible impact on properties that are on or eligible for the National Register of Historic Places before a significant construction project begins.

OFMC Division of Program Planning Supervisory General Engineer Emerson Eskeets said OFMC project managers and other staff members are the key federal representatives who ensure that school and other BIA construction projects comply with federal statutes. "We need to keep our staff up to date on these two Acts," Eskeets said.



*The NEPA training included an exercise in compliance with environmental and historic preservation statutes using the old Southern Pueblos Agency Administration building as a model.*

## PUBLIC NOTICE

Penalty for private use \$300

OFFICIAL BUSINESS

ALBUQUERQUE, NEW MEXICO 87104

1011 Indian School Road, NW Suite 335

Office of Facilities Management and Construction

RESOURCES

OFFICE OF FACILITIES, ENVIRONMENTAL and CULTURAL

BUREAU OF INDIAN AFFAIRS

DEPARTMENT OF THE INTERIOR

UNITED STATES

The Office of Facilities, Environmental and Cultural Resources oversees the Office of Facilities Management and Construction, the Division of Safety and Risk Management, and the Division of Environmental and Cultural Resources Management.

**OFECR**