APRIL 2007 Bureau of Indian Affairs

Employee Housing Conditions Assessed by Field Inspections Across Indian Country

OFMC is completing a nationwide employee housing needs assessment of 3,220 housing units in 84 locations that have 10 or more units The purpose of the condition assessment is to determine BIA's and BIE's employee housing needs and secure independent recommendations to pursue future construction of additional housing or replacement of existing units, in order to establish a budget line item for such funding in the FY2009 budget.

Logistics Management Institute (LMI) and its assessment inspectors are conducting site visits to each of the locations to identify the number of staff members who require housing, to determine who is currently living in the BIA housing, to conduct visual inspections of BIA housing, and to note the condition of the units. They are working with information contained in FMIS and in the Quarters Management Information System (QMIS).

The assessment inspectors are making a visual inspection of the interior and exterior of as many housing units, BIA-owned mobile homes and unoccupied trailer pads as possible. In addition, they are reviewing information concerning the rental market in the



Employee housing assement inspector Michael Morrison (left) begins his survey of a home at Tohono O'odham High School in Arizona while Papago Agency Quarters Manager Lee Ivey explains the process to resident Carl Antone and his daughter, Ciara.

nearest service-center towns and noting the typical commute, typical rental rates and other amenities. Gerald Curley, BIA Employee Housing Manager, said the assessment will provide a thorough snapshot of the current condition of employee housing across Indian Country. (Additional coverage: Page 4).

BIA School Facilities Design Handbook Sets Design and Construction Standards

The Office of Facilities Management and Construction has completed a handbook containing approved standard design templates for BIA-funded New Construction and Replacement Schools. Standardizing construction processes and materials likely will produce overall program cost savings, foster sustainable structures, instill the use of green building construction techniques and create more predictable Operations and Maintenance forecasting. The handbook will be presented to the Secretary of the Interior and is in line with the direction of the Office of Management and Budget to improve energy efficiency by creating standard design templates for new school construction. According to OFMC Deputy Director Boyd Robinson, use of the handbook will not curtail the cultural benefits Indian students receive by learning in buildings designed to reflect their tribe's unique traditions and history. New school designs will continue to be based on local geography and culture, on the enrollment guidelines found in the 2005 Education Space Criteria Handbook, on building types,

(i.e., classrooms or dormitories), and on the U.S. Green Building Council's LEED Silver Certification criteria and its Collaborative for High Performance Schools.

A key factor in creating the standard design template is to meet energy savings requirements in the Energy Policy Act of 2005, which directs the Department of the Interior to achieve energy savings of two percent each year through 2015. For example, the handbook lists recommended HVAC systems for BIA new school construction that will meet these increased energy saving requirements.

The American Indian Council of Architects and Engineers has reviewed the handbook, which was compiled by a committee of BIA project managers, facility managers and safety officials, with input from BIE officials. The committee was assisted by an Indian-owned architectural firm, MOA Architectural Partnership of Denver, Colo.

Briefs

Arizona Seeks to Follow First Mesa's LEED Lead

The State of Arizona's Department of Environmental Quality is developing a case study of the BIA's First Mesa Elementary School on the Hopi Reservation in Arizona, which is one of only two schools in the state with Leadership in Energy and Environmental Design (LEED) certification. Arizona will use the case study as an example to encourage the construction of "green" school buildings throughout the state. The U.S. Environmental Protection Agency (Region 9) is funding the Arizona effort. LEED is a U.S. Green Building Council rating system and a third party certification tool adopted by OFMC and the Department of the Interior as a recommended goal for all new construction.

Fuel Oil Spill Clean Up at Greyhills Academy, Ariz.

A December 2006 fuel oil spill soaked the ground up to five feet deep at Greyhills Academy High School in Tuba City, Ariz. The emergency clean up by the oil company was monitored by Division of Environmental Management officials.



In Memoriam

SIPI, SPA Facility Manager George Montgomery Dies

George Montgomery, who served as the facility manager for Southern Pueblo's Agency from 2002 until he took a similar position at the Southwestern Indian Polytechnic Institute in 2006, died in January following heart surgery. While he was in the private sector, Montgomery designed the Visitor's Center at the Vietnam Veterans Memorial in Eagle Nest, N.M. A West Virginia native, he earned a masters degree in architecture from the University of New Mexico.



Jeehdeez'a Academy (Low Mountain) Gets Underway



Construction of the 100,000 square-foot Jeehdeez'a Academy Replacement School near Piñon, Ariz., began this year. New dormitories will constitute 50,000 square feet of that space. The K-6 school is designed for 313 students. The current school encompasses 24 buildings and five portables. The new school will provide specialized classrooms, a library and media center, new dining and kitchen facilities, computer labs, gymnasium, athletic fields, and staff housing. The OFMC Project Manager is Phil Sarracino, a member of Laguna Pueblo.

Varmints, Water Use Bring Focus on Synthetic Fields

The State of Arizona's Athletic Scholastic Sports Association has requested that some BIA schools improve the condition of their playing fields or face a prohibition on the fields' use until they are made safer. Some BIA schools in the Navajo Region are having to pay to use other football fields to play their home games. The problem stems from varmint holes and poor watering systems. Installed in the 1960s, the current fields have been resodded/reseeded a number of times; however, they have insufficient sprinkling due to water restrictions during high winds. "Also, prairie dogs take over the area because the grass is their food, and we can't poison them due to EPA standards," said BIA Navajo Region Facility Manager Joe Bitsie. He said the cost of installing a natural grass field is \$366,570, while an artificial turf field would cost \$750,248 (not including subsequent maintenance or watering costs).

The BIA-funded Santa Fe Indian School's playing fields are made of artificial turf because the City of Santa Fe has strict limits on the use of water, said OFMC Project Manager Bob Montoya, who oversaw the Santa Fe Indian School project, completed in 2005.

Eastern Region Improves Mississippi Schools' Emergency Service with 11 Generators

Hurricanes in Florida and Louisiana, and severe winter weather in Mississippi Choctaw tribal leaders sought to correct the situation, Maine, prompted Eastern Region facility managers to install emergency generators at BIA funded schools in those states.

In 2006, Hurricane Katrina devastated Mississippi, where the BIA funds school facilities in seven locations. and the absence of emergency generators at those schools was quickly felt. "Without power, there was no way to meet the necessities of life," said Mississippi Schools Receiving Emergency Generators in 2006

School Location Tucker Elementary Philadelphia Conehatta Elementary Conehatta Standing Pine Elementary Carthage **Pearl River Elementary** Choctaw **Boque Chitto Elementary** Philadelphia **Choctaw Central** Choctaw

Middle School and High School

Emergency Power One 150 KW generator Three 150 KW generators One 50 KW generator

One 175 KW, one 200 KW generators

One 150 KW generator

Three 150 KW, one 75 KW generators

funding from the Cyclic Maintenance budget. Red Water Elementary School in Carthage has plans for an emergency generator in its upcoming Replacement School project. "Because the BIA has so many remote locations,

there has always been concern with power outages, and most locations have emergency generators. There just wasn't a focus on this in Mississippi before Katrina," Parham said.

and the Eastern Region responded with the purchase and installation

of 11 emergency generators at Mississippi schools, using FY2006

"They lost the food in the school freezers; there was no way to cook it."

Tohono O'odham

New Emergency Generator Can Power the Detention Center, Community's 911 Service

Eastern Region Facility Manager Johnny Parham.

Papago Agency Facility Manager Vernon Russell (above) shows the new diesel-fueled emergency generator for the Tohono O'odham Detention Center in Sells, Ariz. Corrections Officer Charlene Garcia (right) shows the facility's old propane-powered generator.

When electricity outages occurred, the old propane-powered emergency power generator for the Tohono O'odham Detention Center in Sells, Ariz., which also houses the tribal Police Department, could only supply electricity for the lights and receptacles in the detention portion of the facility. There wasn't enough power to operate the community's 911 emergency response dispatch center, housed in the facility, and some Detention Center employees had to bring in their own portable generators to run their office equipment until full power was restored. A new 130

> KW generator was installed in FY2006 at Tohono O'odham and was fenced off from the Detention Center compound. (The old 15 KW generator was located in a mechanical room inside in the Detention Center). The new generator can provide sufficient power for the entire facility and for the uninterrupted 911 emergency response dispatch service for the Papago Reservation.

Porcupine Communications Center Generator Ensures the Pine Ridge Reservation's 911



A former law enforcement substation (upper center) houses electronic dispatch equipment (above and lower center).





Through Pub. L. 93-638, the BIA funded a propanefueled, back-up generator (above), rated at 25 KW.

A 24-hour Communications Center, serving the Pine Ridge Reservation, operates out of a BIA-owned facility in Porcupine, South Dakota. The standard power supply for the facility and its 911 dispatch center is backed up by a standby pad-mounted generator. The facility was built in 1981 as a substation for police, fire and emergency services for the Oglala Sioux tribe, as well as serving as a law enforcement holding facility.



New housing at First Mesa Elementary School on the Hopi Reservation.

BIA's newest housing Attracting, Retaining Teachers at Remote Locations Is Influenced by Good Housing

Bureau of Indian Education recruitment and personnel officials, as well as some Education Line Officers, acknowledge that a major factor in attracting teachers to remote school locations is the quality of employee housing offered there. They said the prospective employees are more likely to consider relocating to teach in the BIE schools if the housing is new or in good condition—and that good housing helps to retain current employees.

BIA Employee Housing Report to Advise Which Units Need Replacement, Renovation

A report on BIA employee housing needs will show how many units need replacement and how many other units could suffice with renovated kitchens and bathrooms, along with interior painting and new carpeting and flooring. The housing assessment is reviewing conditions in 3,220 BIA employee housing units across Indian Country. "This formal condition assessment will substantiate information we have been accumulating in the Quarters Management Information System (QMIS)," said Employee Housing Manager Gerald Curley, a member of the Navajo Nation. QMIS shows that 82% of the Bureau's employee housing inventory is in fair to poor condition. The assessment isn't considering the condition of the infrastructure supporting the employee housing—power, water and sewer systems, and heating and cooling fuel supply. However, those factors will be part of any plan developed to improve employee housing conditions. In FY2007, the BIA's Employee Housing Repair Program, with an inventory of over 5 million square feet of space, is operating with a \$1.9 million budget. Curley said the assessment will be used to justify a FY2009 request for increased funding and the establishment of a separate line item in the BIA budget for the Program, which is currently part of OFMC's Operations & Maintenance budget.

<u>Preventing Exposure to Dangerous Chemicals</u> BIA Facilities Staff Alerted to Possible Methamphetamine Labs in Vacant Structures

An increase in the use and manufacture of the illegal drug methamphetamine across Indian Country could affect some Agency facility managers who often have vacant structures under their supervision. When used as a site to manufacture the illicit drug, a building can become so contaminated that cleanup is impossible. The chemical contamination must be mitigated and the building demolished.

Facility managers should be aware that under any circumstances caution should be used with regard to a building believed to have been used as a methamphetamine lab. Law enforcement officials, as well as maintenance crews, need to be aware of the potential danger in entering, inspecting, cleaning or performing maintenance work in buildings which are contaminated with drug residue. OFMC has studied the Colorado Department of Public Health and Environment regulations pertaining to the cleanup of methamphetamine laboratories, which state:

- For preliminary assessment, limit access to the property to those with appropriate training and personal protective equipment. Sampling and laboratory analysis shall be conducted as part of the preliminary assessment.
- For decontamination, a negative air unit, equipped with a HEPA filtration system, shall be used to reduce airborne particulates. Remove contaminated material that cannot be decontaminated. Wash surfaces that will not be removed with detergent. Decontaminate the ventilation system, water flush the plumbing system and inspect and, if warranted, test the sewage disposal system. Personal property must either be decontaminated or properly disposed of.
- Contaminated material must be treated as hazardous waste. Sewage waste that is contaminated can be disposed of similar to hazardous waste.
- Debris generated during methamphetamine lab decontamination shall be managed as solid waste. Wash water can be containerized for off-site disposal.

Tohono O'odham High School Employee Housing Assessment





Employee housing assessment inspector Michael Morrison begins his survey of a home at Tohono O'odham High School in Arizona accompanied by Papago Agency Quarters Manager Lee Ivey (left). Morrison and resident Carl Antone check the circuit breakers (right).



Morrison and Antone check the home's water heater and utility room hook ups (left). Windows have been damaged (center) due to multiple break-ins by illegal aliens seeking food and water while traveling through the desert near the Tohono O'odham High School employee housing neighborhood. Morrison and Ivey discuss the condition of a kitchen (right).





Morrison checks an ad hoc swamp cooler drainage system (left). Ivey and Morrison review their findings with Antone and his daughter, Ciara. (right).

Focus

New Era in Facilities Training Begins at Albuquerque Center

At a time when OFMC faces the possible retirement of 25 percent of its crafts and trades workers and 26 percent of its technical professionals in 2007, a new professional development era within the Department of the Interior (where at least 25% of the facilities workforce is eligible to retire in 2007) will impact OFMC training.

For 15 years, OFMC's FIXIT (Facilities Improved Excellence through Increased Training) focused on mini-institute-style professional development sessions to comply with 46 BIAM. According to 46 BIAM, "The Bureau is to provide quality training for Bureau facilities employees as well as Tribal employees directly engaged in facilities operations at contract, grant and self-governance compact facilities in order to maintain or acquire standards of competency."

The facilities training program had accomplished this through a program-user volunteer team which established training objectives, goals and course content, working with OFMC Training Program Administrator Sandy Lujan.

This June, the customary FIXIT miniinstitute will be replaced by courses offered in Albuquerque by in-house instructors from the divisions of Safety and Risk Management and Environmental Management, as well as by OFMC Program and Project Managers.

Meanwhile, new methods of delivering

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Haskell Uses Skylights to Lighten Its Electrical Load

Haskell Indian Nations University has installed more than 125 energy efficient skylights in buildings throughout the Lawrence, Kan., campus over the past several months. The skylights provide natural light which is diffused into broad, even patterns of illumination.



Skylights provide sufficient illumination for Haskell's gymnasium without using electric lighting.

"It is incredible how much light is produced by one skylight," said

Haskell Facility Manager Virgil Allen. "We don't even turn on electric lights anymore." Allen said the college anticipates a substantial reduction on its electric bill and is anticipating that the skylights will help it comply with the Energy Policy Act of 2005 directive to achieve energy savings of two percent a year through 2015. Allen said Haskell will continue to install the skylights, as the budget allows. Students and staff have given positive feedback regarding the skylights. Also, a 1999 study by a California energy consulting firm showed that students performed 19 to 26 percent better in classrooms with skylights or natural lighting systems. The study suggests that student performance, especially in math and reading, is enhanced with natural lighting.

Two-Story Common Room Ready at Lower Brule Jail



A two-story day room (left) is a key feature of the Lower Brule Law Enforcement Services Center's 42,500-square-foot detention center, serving the Lower Brule Sioux Tribe in South Dakota. The facility has received Division of Safety and Risk Management approval to begin housing prisoners.

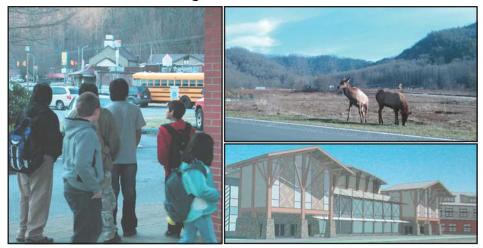
The Lower Brule Law Enforcement Services Center (right) separates the detention facilities from the tribal court and law enforcement services.

Kitchen Improvements at Blackfeet Detention Center



An expanded kitchen, with full stove and walk-in refrigerator, allows Blackfeet Detention Center Cook Mona Bremner to prepare meals for the Center's inmates. The former kitchen at the Detention Center in Browning, Mt., had a simple grill with neither stove nor burners and an old refrigerator plugged into the wall.

Cherokee Trades Congestion for Rural School Location



While arriving students (left) at Cherokee Elementary School in Cherokee, N.C., deal with traffic congestion and tourist businesses, less than three miles away two elk calves feed (above right) at the site of the new 473,000-square-foot Cherokee Elementary and High School Replacement Campus, which will include an art and culture center (shown in a rendering, lower right).

2003 land exchange between the Eastern Band of Cherokee Indians and the National Park Service has increased the size of the Great Smoky Mountains National Park's Blue Ridge Parkway while allowing the Cherokee Tribe to move its overcrowded and aging K-12 schools from their current sites on high traffic volume, city streets in Cherokee, N.C., to a 40-acre rural setting which once was Park land. The tribe wants to move 800 students to a safer location that is more conducive to learning as part of an environmental, cultural and educational "village" where Cherokee language and culture can be taught alongside standard curriculum. On the new site that has significant cultural artifacts, Cherokee children will be able to explore their culture, history, and natural heritage. The OFMC Project Manager is Leo Shirley, a member of the Navajo Nation.

Muckleshoot Tribal School Moves Into Design Stage

The 107,000-square-foot Muckleshoot Tribal School replacement project in Auburn, Wash., is being designed with extensive use of daylight (right) and will emphasize the site's view of Mt. Rainier (below), which is a sacred mountain for the Tribe. The new site is several miles from the existing school (lower right). The OFMC Project Manager is Phil Sarracino of Laguna Pueblo.





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professional development, as outlined in the Department of the Interior's 2004 Facilities Management Workforce Plan, are on the horizon. Some of the future training for BIA and tribal facility managers could be accomplished via satellite, long-distance education, a technology expected to be offered soon by the National Indian Programs Training Center (NIPTC) in Albuquerque, N.M. Satellite downlinks are proliferating across Indian Country, especially at tribal colleges, allowing convenient locations for facilities staff to gather and view training instruction. Also, training courses could be distributed via CD or DVD.

NIPTC is managed by the Department of the Interior University and has a 500student capacity. It is a classroom-style and computer program training center with the potential to offer satellite, longdistance education and training. Some facilities training classes are being offered at NIPTC this year, especially to enhance use of FMIS (Facilities Management Information System).

"We have enjoyed the hands-on, teacher-student relationship for achieving successful facilities management skills training," said OFMC Deputy Director Boyd Robinson. "But the Bureau's training budget has been reduced, and the future use of NIPTC's technology could save travel expense associated with training facility managers, which is a major cost for the field." Other changes could include student tuition fees to partially fund training once paid for through OFMC's FIXIT budget.

"This new training approach will help meet the need for professional continuity in facilities management, as younger workers transition into key jobs," he said.

DEM School's Environmental Improvement Aids Students' Worm Juice Enterprise

A 2005 Division of Environmental Management (DEM) environmental audit of Fond du Lac Ojibwe School in Cloquet, Minn., motivated students to create a worm-based composting enterprise. Midwest Region Environmental Scientist Herb Nelson participated in the school's initial environmental audit following its 2002 construction. Most of his recommendations involved improving storage of potentially hazardous chemicals and other basic environmental safety techniques. However, one recommendation caught the fancy of students at the K-12 grant school: recycle organic waste generated by the school lunches, with the objective of reducing the cost of disposing food waste. The Lake Superior Band of Chippewa Indians' environmental education outreach coordinator worked with Nelson in applying for a BIA grant to fund the creation of a composting operation, run largely by Fond du Lac students. Their theme, emblazoned on t-shirts, is:

"Compost: Because a Rind is a Terrible Thing to Waste."



Students from Fond du Lac Ojibwe School in Cloquet, Minn., harvest worm juice from worm-filled composting bins which receive organic waste leftovers from the students' daily lunches. The organic fertilizer is bottled and sold locally by the students.



JFECR

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