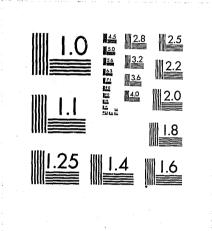
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MICROCOPY RESOLUTION TEST CHART NATIONAL BUREAU OF STANDARDS-1963-A

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National Institute of Justice United States Department of Justice Washington, D.C. 20531

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SEFIEMBER 1982

## ENFORCEMENT BULLETIN

**Nuclear Security** 

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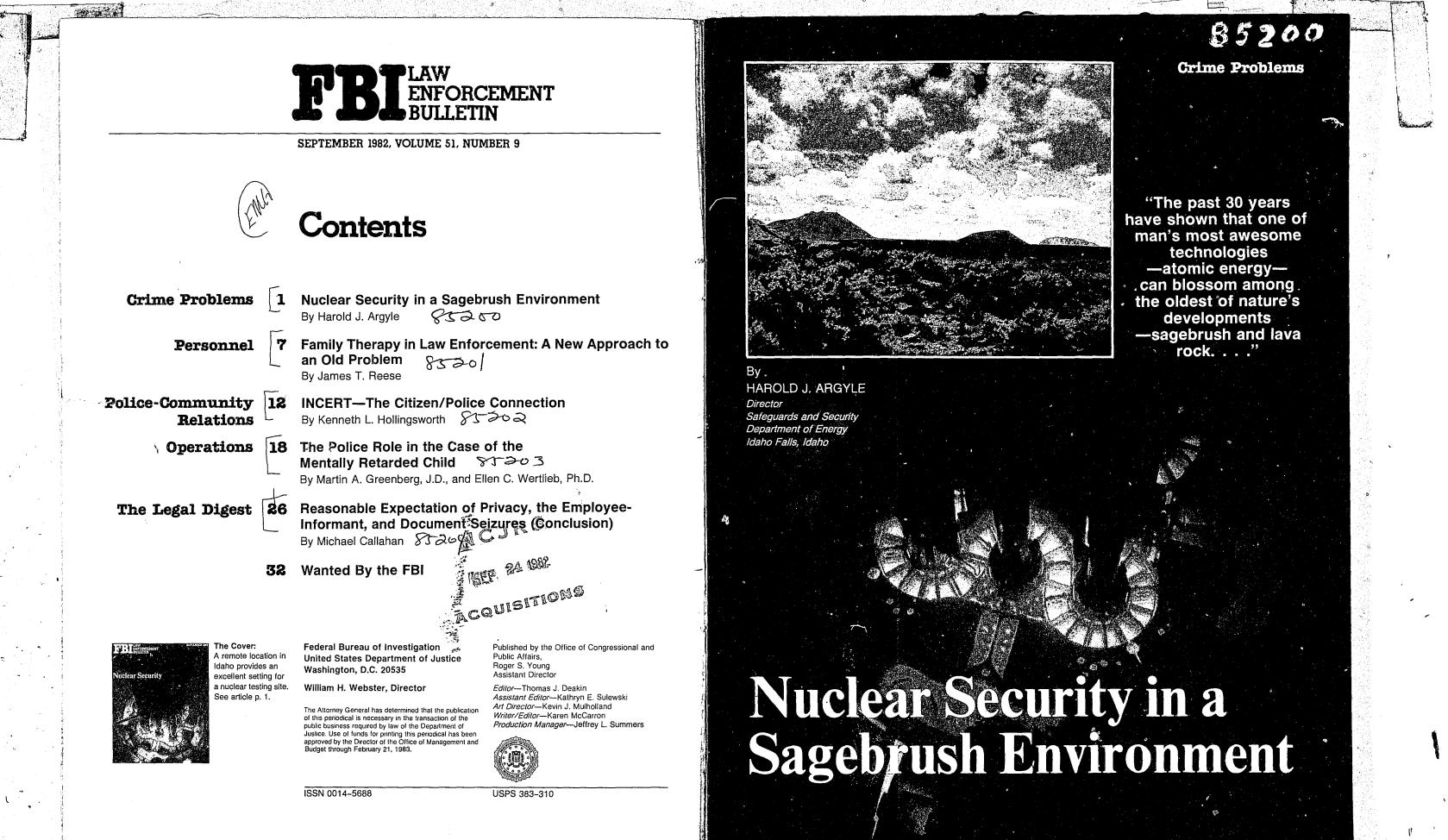
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Mr. Argyle

Even to the untrained eve, the stagecoach trails are still visible. Yet, a short sagebrush-covered distance away is a nuclear reactor complex where electrical power is being generated from a liquid metal-cooled breeder reactor. This is a facility where unused. highly enriched U-235 nuclear material used in the nuclear Navy is being chemically separated and concentrated from "spent fuel elements" behind massive barriers of metal, earth, water, and concrete and where irradiation effects experiments, which would normally take years to accomplish, are being conducted on materials in days to weeks in a test reactor. The antelope, rabbits, covote, eagles, rattlesnakes, and a myriad of other large and small animals and birds, along with grazing cattle and sheep, continue their unending quest for existence with hardly a second glance to these additions to their environment. They are oftentimes seen grazing along the fence or even on the lawns of the reactor and support facilities. An environmental park designation permits these animals and birds to continue this unusual, but totally compatible, paradox, with little inconvenience. Some sage grouse are tagged with red-wing ribbons to study their migration, and instrument collars are put on a few antelope and covote to record their travels and locate their dens. Continuing studies have revealed how well the animals have adapted to this altered environment. As hazardous as this nuclear laboratory environment may seem, the biggest danger to the animals are the vehicles driven by site employees.

The Idaho National Engineering Laboratory (INEL) was established by the Federal Government in 1949, on the Snake River Plain between Idaho Falls and Arco, Idaho. Occupying a land mass of 270 square miles, it was first known as the National Reactor Testing Station and was specifically selected as a remote location where new kinds of nuclear reactors could be built and tested without jeopardizing any major populated areas. Atomic reactors were a new technology, and such an isolated and large land area was desirable as a safety precaution for operating new design reactors. Success of the program is evidenced by the fact that initially, no more than four or five reactor facilities were scheduled to be built. Today, 33 vears later, of the 52 reactors at INEL. only 15 are still operable. The others have been shutdown and phased out of their research missions. Many of their components have been "cannibalized" for use in new projects or for maintenance or modifications to existing ones. There have been more nuclear reactors and more different types of reactors built at the INEL than in any other place in the world, involving some of the most advanced research programs known to mankind. The significant engineering and scientific achievements and breakthroughs are numerous and are recognized worldwide. In 1966, President Johnson dedicated the first reactor facility built at the INEL as a historical landmark because it was the first in the world to generate electricity.

The relatively flat, remote location of the Snake River Plain was ideal for the necessary security precautions. The primary reasons for selecting this area were the existing headquarters area, a railhead, a Marine barracks, and Navy housing. These facilities supported a Navy program to test fire newly relined 16-inch gun barrels from the U.S. fleet battleships during World War II. Several years later, additional desert land was acquired to provide the testing "buffer" for the INEL nuclear facility until the present total of 890 square miles was involved.

The initial security program needed to protect various kinds and types of reactors was similar to that required for the protection of both classified documents and materials. This required welltrained guards, 8-foot chain link fences with barbed wire selvage to define the operating area perimeters, security lighting, guard-controlled entrances. picture identification badges (to indicate authorized access and any limitations of such access), combinationlocked repositories, safes and vaults for storage and key control, alarm systems, and special vehicles. Idaho also had clearance program requirements to verify that permitting access to the classified matter would not endanger the common defense and security. Security education programs were designed to keep employees constantly aware of their responsibilities and the potential consequences of straving from policies and procedures. Document controls required marking, storage, accounting, transmitting, and destruction procedures. We also had a general administrative security program to control the entire INEL land mass (exclusive of the individually fenced reactor areas) for employee and government property controls, area overflights, and contraband, etc. Access within our boundaries off the public thoroughfares was limited to "official business," and all

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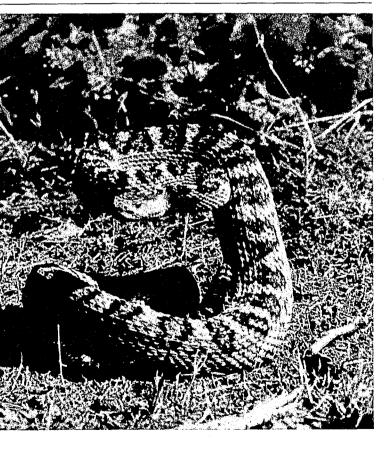
2 / FBI Law Enforcement Bulletin

persons were required to have an identification device issued by the Department of Energy (DOE) security to verify this fact. All of these procedures are still in effect.

The isolation of the testing site has been dramatically reduced by the availability of helicopters and all-terrain vehicles, including trail bikes and snowmobiles. Also, many of the programs that were highly classified in the 1950's have been declassified. The "Atoms for Peace" program shared many of our previously "secret" technologies, including the special nuclear materials used in the reactor operations, with not only private U.S. interests but also with international concerns.

Today, unless the fuel is in a classified configuration or is still associated with a classified program, it is unclassified. Because of the strategic importance of this material, security procedures often exceeding those required for classification have been initiated. It is painfully evident that there are elements in our worldwide society who will pay almost any price or go to any length to obtain this material. Possession of this material by malevolent and irresponsible persons could be catastrophic—entire nations could be held at ransom or blackmailed.

materials used in the reactor operations, with not only private U.S. interests but also with international concerns. Accordingly, security programs have undergone dramatic upgrading during the past few years. A combina-



September 1982 / 3



used, and improved alarms and lighting, of prohibitive items or removal of nuclesonnel monitoring and X-ray equipment when they enter or leave work or material access areas. Plant entrance guardhouses, communications centers, and monitoring control locations are being "hardened" to ensure a secure and uninterrupted operation. Computerized access controls using key card systems record all accesses for emergency situations, as well as for information and investigative purposes. They also permit a more positive control to authorized areas for a given employee and those periods of the day such access is permitted. Two-man rules are enforced, and additional background clearance investigations are being made on employees who use, control, or protect nuclear material, and on employees, such as guards and reactor operators, whose work assignments require the utmost

tion of multiple barriers and fencing is the latest "state of the art" are replacing older models to improve coverage together with closed-circuit TV, provide and ensure operation under all condiimproved assessment capabilities. To tions. Guard forces are receiving inminimize the unauthorized introduction tensive training in the use of special weapons, special armored vehicles, ar material, highly sophisticated per-night vision devices, and technical communications equipment. Vaults are behave been installed to check employees ing upgraded to better protect material and their lunch boxes, briefcases, etc., and control access. In general, while protection and control of classified matter is still a major concern, the basic thrust is now toward nuclear material protection, and we're making it as tough and as costly as possible for someone to gain unauthorized access.

> Administrative security problems have also increased. With approximately 8,800 operational and construction people now on site, we experience the same common thefts, misuse of property, traffic problems, etc., as most municipal and county law enforcement organizations. "Antinuclear" activities, while not vet a major problem, are also increasing.

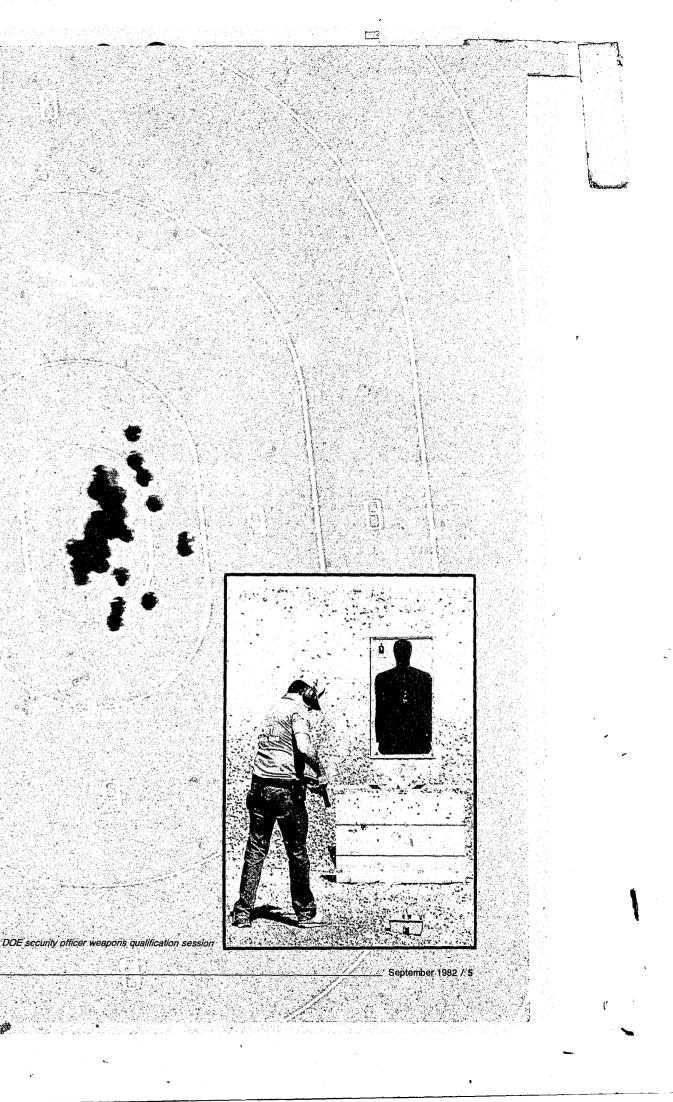
The "isolated" INEL location has also provided a few unique problems in the area of administrative security controls. For instance, there is a security confidence. Alarm systems involving problem with hang gliders being both an unauthorized air flight over our property and the glider operators being unauthorized entries. The big Southern

Butte, adjacent to the south boundaries of the INEL, is sometimes used as an excellent launching point by hang glider pilots, and it has not been uncommon for the INEL guard forces to stop several friends of a glider pilot who was last seen going "up" over INEL property. Indians from various tribes also have been apprehended in the area, exercising what they consider to be tribal treaty rights to hunt antelope and other animals.

Both contract and DOE uniformed forces are involved in the INEL security program. Generally, the contractor guards control access within the individual plant facilities, while the Federal force is responsible for the control of the entire land mass outside of the individually fenced reactor plant areas and is responsible for backup or emergency response to any facility. As a result, the Federal forces are specifically trained in Special Weapons and Tactics (SWAT).

The INEL falls within the provisions of the State of Idaho emergency plan. The Idaho State Police are called upon for assistance when a situation is beyond control of the onsite forces. With their authority for deputization, we depend heavily upon them as a major source of emergency assistance. The FBI also responds to emergencies.

4 / FBI Law Enforcement Bulletin





The DOE response officers work a counties involved in the INEL land 4-platoon industrial work schedule. All must meet rigid physical qualifications, and some officers are subject to psychological testing as a means of ensuring their capabilities to react under hostile conditions. All response officers are armed with a .357-caliber handgun as their personal weapon with which they must qualify annually.

In addition, response officers must qualify with 12-gage riot guns, M-16 rifles, 37-mm. gas launchers, .30-caliber machineguns (mounted both on emergency vehicles and land ground mounts), and the American 180 .22caliber laser beam sighted machinegun. Soon, these officers will use M-60 and .50-caliber machineguns on both vehicle and ground mounts. Each officer also carries mace and a 3-frequency radio on the security net. In addition to firearms training, officers also receive instruction in public relations, report writing, first aid, and laws of arrest, as well as special radiological monitoring and emergency response requirements. The DOE force is deputized in the Idaho State Police to permit enforcement of State traffic regulations on our site roadways, trespass laws, etc. There are five separate Idaho

mass, and violators of non-Federal laws are normally sent to the county seat where the arrest or citing occur.

Another vital part of the INEL operations and security program is a Warning Communications Center, This center, operated around-the-clock by DOE-IE Federal uniformed personnel. is considered the nerve center of the Idaho Operations Office during any emergency situation. Those responsible for the site actions during severe weather, fire, flood, radiological or industrial incidents, civil disturbance or national defense emergency report to this emergency center to assume control. The center monitors and controls the Department of Energy, and very together as necessary. They have within the next year, some things re-State police, city police, State Highway main constant: The new bloom of Department, National Warning System sagebrush each spring, a new supply (NAWAS), and Radio Arnateur Civil of coyote pups and antelope fawns, Emergency Service (RACES) monitor- and the phasing out of certain nuclear ing the radio capabilities and all com- programs and the development of new munications to the center can be ones. recorded.

Warning Communications Center (WCC) Control Panel

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Extensive employee lists are maintained along with lists of agencies to be notified in event of an incident or emergency. Personnel at the center assist by calling wreckers, ambulances, employers, etc., in case of an accident.

The FBI was woven into the tapestry in the INEL security program from the beginning. Until the last few years. the Bureau performed all of the background investigations for our clearance program. The Office of Personnel Management now provides these for the less than critically sensitive positionsthe critically sensitive positions still remain a Bureau responsibility. The Bureau has also provided valuable assistance in investigations of government property thefts, suspected sabotage, and other violations of Federal law, along with training for emergency response and SWAT training.

The past 30 years have shown that one of man's most awesome technologies-atomic energy-can blossom among the oldest of nature's developments-sagebrush and lava rock-in a most unusual but surprisingly compatible environment. While the responsibility for INEL programs has evolved from the Atomic Energy Commission, to the Energy Research and Development Administration, to 19 radio nets and can "tie" any or all probably to some other Federal entity FBI

6 / FBI Law Enforcement Bulletin



