

# Dozens of U.S. Exports Went to Iraqi Arms Projects

By R. Jeffrey Smith

Washington Post Staff Writer

International inspectors discovered evidence of American commercial assistance to Iraq's nuclear weapons program while searching last October through an industrial warehouse on the southern outskirts of Baghdad.

Inside a large packing crate they prised open at the Daura complex was a sophisticated welder fitted

with a special lamp for siting and caps on the ends. Inspectors identified it as a special instrument for a nuclear reactor.

The welder, U.S. and United Nations officials say, was shipped to Iraq by the American subsidiary of a German firm—Leypold, Vietnam Systems Inc., in Bangkok, Conn.—along with a high-tech turbo fan in missile and nuclear applications.

Internal Commerce Department documents obtained by The Wash- ington Post in 1988, in a report on U.S. exports to Iraq, identified the equipment as a high-tech turbo fan used at the time that the equipment was for the military. It was used in the development of a crane. Generally, the exports of a crane are prohibited by federal agen-

cies, according to U.S. officials, the Leypold beam welder is considered to be among the most sophisticated of 34 U.S. high-tech exports to Iraq before the Persian Gulf War that the Commerce Department is examining for potential violations of U.S. law.

In addition to U.N. discovery of the welder, congressional investigators here have uncovered evidence showing the United States approved dozens of exports that

See Iraq, A28, Col. 1

# Numerous U.S. Exports Went Into Iraqi

IRAQ, From A1

found their way into Iraq's missile, nuclear, poison gas and germ weapon programs.

These exports included bacteria or fungus cultures, computers and electronic instruments, chemical process control equipment, and missile navigation and communications gear, according to a formerly secret State Department document made public yesterday by House Banking Committee Chairman Henry B. Gonzalez (D-Tex.).

About two of every seven export licenses approved between 1985 and 1990 "went either directly to the Iraqi armed forces, to Iraqi end-users engaged in weapons production, or to Iraqi enterprises suspected of diverting technology" to weapons of mass destruction, Gonzalez said in a speech on the House floor.

He and other legislators also contend that the executive branch either neglected or deliberately ignored a series of warnings about Iraq's procurement of U.S. equipment for its unconventional arsenal.

President Bush has denied that the United States slept while Iraq armed, saying at a July 1 news conference that "we did not go to enhance [Iraqi President Saddam Hussein's] nuclear, biological or chemical capability" before the gulf war. Senior officials have said that most of the U.S. exports were benign and meant primarily to help draw Iraq into a closer economic and political relationship with the United States.

U.S. and U.N. officials say, moreover, that dangerous exports to Iraq by American commercial firms were only a fraction of those by firms in other countries. A classified interagency report to Congress last year said Europeans "were key" to Iraq's immense chemical arsenal and also provided most of the foreign aid to other Iraqi weapons of mass destruction.

But evidence emerging from the U.N. and congressional inquiries demonstrates that U.S. exports

## Projects for Mass Destruction

played a supporting role.

### Iraqi Uses Seldom Verified

Gonzalez disclosed yesterday, for example, that a dozen or so high-tech exports were approved for use at Iraq's Salah Al Din, Saddam and Nassir State Establishments, all linked by secret U.S. government reports before the gulf war to arms production or military research.

Six U.S. exports of biological material were approved for the Iraqi Atomic Energy Commission, which the CIA said in a secret report last year had acted as a "cover" for the Iraqi germ weapon program. Another 11 biological exports were sent to the University of Baghdad, now also suspected of fronting for Iraq's weapons program.

In addition, the Bush administration approved 10 U.S. exports for the Technical and Scientific Materials Division of the Iraqi Trade Ministry, tied in a classified 1990 CIA report to "biological warfare support and numerous other military activities," according to Gonzalez.

"Iraq was able to obtain ... equipment of a predominantly commercial or civilian character, such as computers, from American firms for the Sa'ad 16 facility," Iraq's principal research and development center for ballistic missiles, said last year's classified interagency report to Congress. At least two of these exports occurred after 1986, when Sa'ad 16's purpose had been described in a secret Defense Department report to Commerce officials.

Some of the exports were approved with conditions proscribing their use in nuclear or missile applications. But U.S. officials verified that Iraq was observing these conditions on only one occasion, ac-

According to Gonzalez. "Tragically, in the case of Iraq, the United States did not adopt a policy of conducting post-installation checks," Gonzalez said yesterday.

Confidential Commerce Department files also reveal that the Reagan and Bush administrations approved at least 80 direct exports to the Iraqi military. These included computers, communications equipment, and aircraft navigation and radar equipment, Gonzalez said.

Many of these exports were made before Iraq's eight-year war with Iran ended in 1988, a period in which Washington maintained an official policy of neutrality toward the combatants but vigorously worked to block foreign military purchases by Iran.

In addition, the U.N. Special Commission on Iraq secretly informed the administration six months ago that equipment from 11 American companies was found in Iraqi missile and chemical manufacturing plants. The equipment included a "filling system for projectiles," a "pressure and temperature regulator," a ballistic missile "X-ray machine" and the chemical ingredients of a deadly nerve agent, according to the report, a copy of which was obtained by The Washington Post.

## U.S. BLESSED RISKY EXPORTS

**A** secret State Department document, released yesterday by Rep. Henry Gonzalez (D-Tex.) concluded in early 1990 that the United States approved exports to "probably proliferation-related" users—makers of chemical, missile, nuclear and germ weapons—inside Iraq. The cases included:

- "at least 17 licenses . . . for the export of bacteria or fungus cultures either to the Iraqi Atomic Energy Commission or the University of Baghdad;"
- several licenses, given to "a known procurement agent for Iraqi missile programs," for export of computers and electronic instruments to the Iraqi Atomic Energy Commission;
- a license for the export of a computer to the Iraqi Ministry of Minerals, "known to be associated with the Iraqi CW [chemical weapons] program";
- licenses for export of equipment to control chemical processes and computer-assisted design and manufacturing;
- a license to export "navigation/direction-finding/radar/mobile communications equipment" to a missile-related facility;
- and a license for the export of possible missile telemetry, or electronic communications, equipment.

An initial review of 73 cases in which licenses were granted by DOC or DOC/DOE from 1986-1989 shows that licenses were granted for equipment with dual or not clearly stated uses for export to probably proliferation related end users in Iraq. This indicates that expanded license requirements and additional review of licenses could reduce U.S. contributions to proliferation activities. These cases concerned only exports for which a license had to be obtained; they indicate nothing about equipment that may have been exported freely because no license was required.

**EXCERPTS**

- During the period in question, at least 17 licenses were issued for the export of bacteria or fungus cultures either to the Iraqi Atomic Energy Commission (IAEC) or the University of Baghdad.
- A known procurement agent for Iraqi missile programs, was issued licenses to export computers to "a missile activity" and computers and electronic instruments to the IAEC.
- A license was issued to export a computer for a "fertilizer plant" to the Iraqi Ministry of Minerals, which is known to be associated with the Iraqi CW program.
- [redacted] received a license to export equipment to the Iraqi Ministry of Minerals for "general military applications such as jet engine repair, rocket cases, etc."
- Licenses were issued for the export to Iraq of computer-assisted design and manufacturing (CAD/CAM) and chemical process control equipment.
- [redacted] had a license approved by DoD for a computer system for use with a furnace for "medical prostheses."
- [redacted] also had a license approved by DoD/DOC to export numerically controlled equipment related to crucibles.

APPROVED BY STATE DEPARTMENT ON 11/19/92

APPROVED BY STATE DEPARTMENT	APPROVED BY SECRETARY OF DEFENSE	APPROVED BY SECRETARY OF COMMERCE
DATE	DATE	DATE
BY	BY	BY
FOR EXPORT TO	FOR EXPORT TO	FOR EXPORT TO
CLASSIFICATION	CLASSIFICATION	CLASSIFICATION
REMARKS	REMARKS	REMARKS

Also, a recent confidential report by the International Atomic Energy Agency has identified at least 15 American companies that inspectors believe made major machine tools used or earmarked by Iraq for its nuclear weapons program, according to U.S. officials who spoke on condition that they not be named.

Much of the equipment discovered by the U.N. and IAEA reports was not sophisticated enough to be subject to U.S. export constraints at the time it was shipped, according to U.S. and company officials. All of the American firms named in the confidential reports, including Leybold, have denied any wrongdoing.

### Feuding Among Agencies

The history of U.S. high-tech exports to Iraq, as depicted in hundreds of declassified administration documents surrendered in recent months to congressional investigators, is marked by a bitter, long-running battle between the departments of Commerce, State and Defense, which uneasily shared responsibility for reviewing most license applications.

Using the time-honored bureaucratic ploy of deliberate delay, the Pentagon repeatedly tried to hold up exports it worried would help

Iraq's nuclear and missile programs. "Iraq has been somewhat less than honest in regard to the intended end-use of high technology equipment" obtained from the United States, Richard N. Perle, then an assistant secretary of defense, complained in a 1985 memorandum to Secretary of Defense Caspar W. Weinberger.

The State Department responded with a steady stream of appeals for help to higher authorities at the White House. For a March 1987 meeting between then-Vice President George Bush and Iraqi Ambassador Nizar Hamdoon, for example, the proposed "talking points" for Bush from the State Department said: "From the Iraqi perspective, the long delays appear to be capricious. We agree with that assessment."

The Commerce Department found itself sometimes playing the mediator in this dispute and other times advocating commercial interests. Major disputes were occasionally settled by White House orders that freed for Iraq more than a dozen export licenses.

An early U.S. motive in expanding high-tech trade with Baghdad was to help bolster Iraq economically against Iran during the brutal war between the two countries. Even after the Iran-Iraq war, administration officials continued to

promote U.S.-Iraqi trade in a failed effort to gain influence in Baghdad and moderate Iraq's behavior in the region.

Only a few of the U.S. exports to Iraq involved munitions. Virtually all the rest involved so-called "dual-use" equipment, ostensibly meant for civilian application but also capable of being used in a military program. U.S. law proscribed such exports to countries listed as supporting terrorism, a label Washington applied to Iraq before 1982 and reinstated one month after Iraq's August 1990 invasion of Kuwait.

In between those years, Iraq allowed at least three major terrorist organizations to operate from its territory, and provided refuge to Abul Abbas, a terrorist blamed for the notorious 1985 hijacking of the cruise ship Achille Lauro in which an American tourist was killed. But the Reagan and Bush administrations decided to leave Iraq off the terrorist list during this period in what officials say was a deliberate effort to avoid an interruption of trade that would jeopardize political ties and harm U.S. commercial interests.

As a result, Iraq was officially described under Commerce Department rules as a Free World nation—a designation that lumped Iraq with Britain and France in

## SENDING EQUIPMENT TO IRAQ

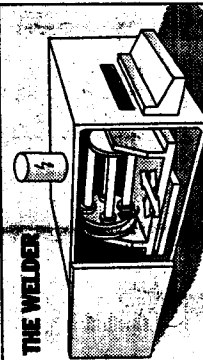
### ANATOMY OF A DEAL

**H**ow did a U.S.-made welder useful to nuclear weapons-making end up in Iraq?

■ In Washington, D.C. (1), the Commerce Department allowed the welder to leave the country. The export is currently under criminal investigation by three federal agencies.

■ An Enfield, Conn., firm (2) called Leybold Vacuum Systems sent the welder in February 1988 to its corporate parent in (3) Hanau, Germany, where it was repackaged.

#### THE WELDER



This schematic shows an electron beam welding system like that exported by Leybold Vacuum Systems in Connecticut. A beam entering the chamber at the top can be used to weld materials. In Iraq, it was found with a special clamp for holding part of a centrifuge, which is used to enrich uranium for nuclear weapons.

The welder was sent along by Leybold AG to the State Establishment in Iraq. U.N. inspectors found the welder at Daura (4) in Iraq, where it had apparently been sent for use in the Persian Gulf war. Iraqi officials told the inspectors it was meant for use in nuclear reactors work.

# Saddam's Assassination Rumored in Kuwait

By James Rupert

Washington Post Foreign Service

Egypt's state-run news agency yesterday reported rumors in Kuwait that Iraqi President Saddam Hussein had been assassinated, but Iraqi opposition sources and U.S. officials said they could not confirm the account.

President Bush told reporters at the White House that the U.S. government had "no confirmation . . . at all" of the dispatch by the Middle East News Agency, which was quickly reported by other news services. Iraqi media made no reference to the reports.

The ethnic Kurdish opposition movement based in northern Iraq had no word of any assassination, said Hoshiyar Zehari, a spokesman for the Kurdish Democratic Party. But "something seems to be going on," he said. Kurdish groups reported "abnormal troop movements" yesterday at an Iraqi military center near Irbil and "a huge explosion . . . at the Ghazlani military camp" Monday in Mosul.

Zehari said unusual numbers of security checkpoints had been set up on roads leading from



SADDAM HUSSEIN

"no confirmation" of death

those northern cities to Baghdad.

Iraqi opposition groups reported last month that a military coup attempt against Saddam had been put down on June 29. While U.S. officials later questioned the coup report, suggesting that it had emerged from within Saddam's government, diplomats and Iraqi opposition figures have said some kind of confrontation within the military apparently did occur.

gaining access to America's high-tech goods. Export licenses could be refused to a Free World nation only for a few reasons, such as risk of diversion to the Soviet Union, threat to regional stability or use in developing nuclear weapons.

As former undersecretary of commerce Dennis Kloske told a House Foreign Affairs subcommittee last year, without broader foreign policy controls on Iraqi exports, "we had no legal authority, I want to emphasize no legal authority, to deny an export to Iraq."

Paul Freedenberg, who served as assistant secretary of commerce for trade administration in 1988 and 1989, said the White House rejected his proposal at that time to impose such foreign policy controls in response to Iraq's use of poison gases against Iranian soldiers and ethnic Kurds. The National Security Council under President Ronald Reagan responded that "the licensing policy with regard to Iraq was . . . normal trade," he said.

### **Pentagon Fears Dismissed**

Officials say the internal wrangling was illustrated by the executive branch's handling of a 1987 application to export roughly \$1 million worth of computers and

software to Nassr State Establishment, where the equipment was to be used in tool design.

"This system could contribute directly to increasing Iraq's military force capability," the Pentagon said in one memorandum, adding that its export would undermine America's "image of neutrality" in the Iran-Iraq war then nearing an end. It bluntly called Nassr, where officials later said key Iraqi missile work was done, a "bad end-user."

But the State Department recommended approval "because there are no foreign policy controls applied to computer exports to Iraq, nor are there any other statutory or regulatory grounds for rejecting this case," according to an Aug. 10, 1988, summary of the debate prepared by the Commerce Department.

Iain Baird, then acting director of Commerce's Office of Export Licensing, subsequently wrote a memo to the Pentagon dismissing as legally irrelevant any concerns about Nassr's military ties and pointedly referred to the "recent NSC [National Security Council] decision to more favorably review export license applications to Iraq."

The license was finally approved on Oct. 18, 1988, 14 months after the application was received.

"We should begin a major effort to free up licensing requests . . . to enable our companies . . . to participate in development projects," a secret State Department document, entitled Guidelines for U.S.-Iraq Policy, said that year. Expanding U.S. high-tech exports, "more than anything else, can result in Iraqi efforts to improve ties. To Iraq, technology is our most important asset."

### **A 'Suspicious' Transaction**

U.N. inspectors concluded after visiting Daura last year that the Leybold Vacuum Systems export of a high-tech welder from its offices in Connecticut had been a major asset to the Iraq nuclear development program. They found the welder "with a special fixture for holding the rotor tube" of a uranium centrifuge, according to a report published late last year.

The Connecticut firm, which has since sold its welding business to another company, was then a sub-

sidary of Leybold AG of Hanau, Germany, one of that country's largest makers of machine tools. The German company specializes in state-of-the-art vacuum technology considered essential for precise manufacturing of centrifuges and other uranium enrichment equipment.

Leybold's American subsidiary also applied in December 1987 for a license to export a lathe to Iraq, and some Commerce Department officials questioned the application, according to internal department documents.

"The Iraqi government intends to use our system [after fitting it with a laser] for general military repair applications such as jet engines, rocket cases, etc.," the application for the lathe stated.

Chuck Guernieri, then acting chief of the department's review and referral branch, noted the reference to various military applications and promptly called for a special review "on the policy advisability" of approving the export. "In a memorandum to senior technical officials, he said, "If the U.S. is serious about proliferation of the ability to manufacture ballistic missiles in Third World countries, then it is difficult to be a consenting party to a transaction like this."

Kim Marsho, the licensing officer assigned to review the application, subsequently referred it to the department's enforcement branch responsible for blocking illicit technology diversions.

"The transaction seems a bit suspicious," Marsho said in an internal memo. "They are removing the laser from the system and stating that it will be supplied by another vendor. Had the laser remained in the system, the application would require missile-tech review."

U.S. officials who spoke about the case on condition they not be named said licensing officers had ample grounds for suspicion. They said the parent company, Leybold

AG, along with Degussa AG—which was then an affiliate and now owns Leybold AG—has a long history of controversial sales of nuclear-related materials and high-tech industrial equipment to states such as Pakistan, India, North Korea, Czechoslovakia, Romania and Libya.

Jay Hatfield, the enforcement officer assigned to review the case, shared Marsho's concerns about potential diversion, according to a recent memorandum reconstructing the department's internal deliberations. Together with office director Michael Dennis, Hatfield plotted to block the export by sending it to the Defense Department for what he expected would be an interminable delay, according to the memo.

But Leybold's representative in Washington, Werner Hein, called Hatfield to complain that the government's review was taking too long, the memo states.

"I distinctly recall that he threatened on several occasions to take the matter to higher [Bureau of Export Administration, or BXA] authorities," Hatfield recalls in the memo. "Not long after my first conversation . . . Mr. Dennis called me into his office because he had received a phone call from BXA management. He told me that he was receiving pressure on this matter."

Senior export officials subsequently vetoed Hatfield's suggestion that the case be referred to the Defense Department, and ruled that it was not subject to missile technology controls. That left the licensing officer with no choice but to approve the application in February 1988, according to the memo.

Dennis, who is now in private industry, said in an interview that he does not recall any extraordinary pressure from senior officials in the Leybold case. The department's inspector general said in a report several months ago that his office had found no evidence to back up Hatfield's allegation of undue pressure.

But Rep. Doug Barnard Jr. (D-Ga.), who has been investigating the case, said that "the Commerce Department tilted excessively in favor of Iraq" and needs to be watched more carefully "to see that this kind of failure does not occur again."

Regarding the beam welder, Leybold AG told the Commerce De-

partment in a lengthy June report that its Connecticut subsidiary had trained Iraqi technicians prior to shipping the device to Iraq via Germany in April 1988. The device was installed by Leybold AG employees at Taji, a facility that they said the Iraqis claimed performed only aircraft or aerospace work. The company said it has no reason to believe the equipment was misused.

U.N. inspectors found the welder at Daura after Iraqi officials said

they moved it there to escape bombardment by U.S. and allied warplanes during the gulf war. The Iraqis acknowledge it was intended for use in nuclear weapons.

Commerce Department officials say the approval of both licenses was appropriate given the export policies in effect at that time. "In retrospect, it would have been wise not to have approved this [beam welder] license," said Iain Baird, the department's export licensing chief, in a recent interview. "Knowing that this piece of equipment was in fact diverted by the Iraqis to unacceptable end-users, of course everybody wishes this license had not been approved and the equipment had not gone."

### Company Vows Changes

Hartmut Pausch, a spokesman for Leybold AG in Hanau, Germany, said that "to date Leybold has not been found to have violated any export-related law or regulation." A spokesman for Degussa AG in Frankfurt said "to our best knowledge, all export deliveries to Iraq have been made in full compliance with the export control laws" in Germany.

But Pausch also acknowledged that "the Iraqi experience demonstrated to us, and to others, the need to be more aware of proliferation concerns." He said the company has comprehensively reformed its export procedures and its directors have formally pledged not to supply "commodities, technologies or services" directly or indirectly if the company has reason to believe they will be used for nuclear weapons.

The Commerce Department has similarly implemented what it calls an "Enhanced Proliferation Control Initiative" that places special restrictions on exports to countries determined to be pursuing chemical, nuclear, missile or germ weapons.

Secretary of State James A. Baker III sent an outline of some elements of the plan to Commerce Department Secretary Robert A. Mosbacher with a note that "Iraq's extraordinarily aggressive weapons proliferation efforts makes this situation urgent." The message was dated July 25, 1990, two weeks before Iraq's invasion of Kuwait.

*Tomorrow: The German Connection*