

EXHIBIT NUMBER  
PROD. & UTIL. REG.

50-412

Box 58  
Shippingport, PA. 15077  
July 20, 1983



Secretary of the Nuclear Regulatory Comm.  
Docketing & Service Branch  
U.S. Nuclear Regulatory Comm.  
Washington, D.C. 20555

Re: Petition for Intervention on Licensing  
of Beaver Valley No. 2 - Amendment

Dear Sir:

I am happy to see that you sent copies of my petition to all the people who are interested in this case, and I'll do the same on anything I file in the future.

I request this since I live inside the nuclear complex, that's seeking permission to kill me that I be allowed to speak for myself and the other people who live right inside that nuclear complex.

I will myself in my petition discuss in full the nonsense about evacuation drills that the F.E.M.A. and the power company are setting up to fool the public into thinking that it's possible to evacuate people when the catastrophe, that's likely, happens out there.

I asked to submit as some indication of the material I will cover in discussing the phony evacuation drills the article in the Beaver County Times dated July 15, 1983. There are hundreds of details that prove the drills were phony besides the ones that the newspaper said and that I'll provide.

I'm also submitting to go with my testimony a copy of an article, just one of the many, showing how efficiently coal can be used to boil water that's needed to make the 1000 mega-watts of power Beaver Valley 2 is designed to provide. You don't have to risk 20 million lives to boil water in coal-rich Pennsylvania.

Nuclear plants are expensive and dangerous ways to boil hot water. We, the people of the United States have to try to bury the radioactive waste at an enormous cost. We have to foot the bill when the thing blows up and kills people because there isn't enough insurance to cover. We have to foot the bill for the salvage operation. We have to foot the bill when

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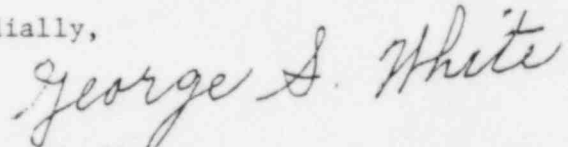
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one of these 2 nuclear plants blows up for creating the electricity now being made at 4 1000 mega-watt plants that one catastrophe will destroy. We have to foot the bill for the big advertising firms that tell you nuclear power is safe while all their executives live as far from it as possible. There are a hundred concealed costs that will land on the taxpayers' shoulders for this overpriced, overdangerous system to boil water.

We also object to any necessity for this plant. The company is desperate to find an excuse for this plant that they are making a long term contract to sell the electricity in another state that is not needed here. Why should we, the people of Shippingport, be destroyed so outside power companies from Ohio can make electricity in our back yard to sell to New Jersey, New York and Maryland.

An open hearing will provide the kind of light that's truly needed on the dark corners of the Beaver Valley 2 deal.

Cordially,

A handwritten signature in cursive script that reads "George S. White". The signature is written in dark ink and is positioned above the typed name.

George S. White

cc: Executive Legal Director  
U.S. Nuclear Regulatory Comm.  
Gerald Charnoff, Esquire  
Ralph F. Walker  
Dr. Judith H. Johnsrud  
Environmental Coalition on Nuc. Power  
Thomas D. Rees, Esq.

## Energy

### Germany's 'cool' coal fire—no pollution, no acid rain, no chimneys

The buttons, bumper stickers and decals are omnipresent in West Germany these days. Bright red and yellow, they depict the sun with a smiling face and bear the slogan: *Atomkraft? Nein Danke!*—Atomic Energy? No, Thanks!

This antinuclear movement poses a seemingly insoluble problem for the Western world's second largest industrial nation. West Germany today meets half its total energy and 70 percent of its heating needs with oil, 97 percent of which it has to import.

But if not the atom, and if not oil or gas, how then to meet fuel requirements that have doubled during the past 20 years?

The popular answer is coal. After all, the famous Ruhr Basin is still one of the world's richest treasure chests of black diamonds. Economically extractable reserves are estimated at 25 billion tons of hard anthracite and 18 billion tons of soft brown lignite—more than enough to last well into the next millennium.

But coal has always meant pollution. Compared to nuclear energy, the sulfur and nitrous oxide emissions of coal-burning power and heating plants pose an infinitely greater immediate danger to the environment.

As it is, fossil-fuel combustion—both oil and coal—already emits more than 60 million tons of pollutants into the atmosphere over Western Europe each year. They come back down as toxic particles and the same corrosive acid rain that plagues the northeastern United States and Canada.

But how about a form of coal combustion that needs no filters because it desulfurizes the flue gases and also has virtually no emission of nitrous oxides?

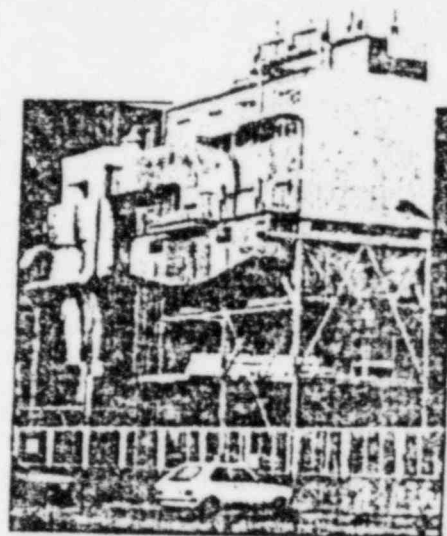
West Germany's coal industry has come up with such a technique, suitable for power generation, as well as production of steam for district heating. Not only is it so environmentally clean that sulfur emissions could be

reduced by more than 99 percent, but it is more efficient and cost effective than any conventional coal-burning system now in use.

Based on the principle of "fluidized bed combustion," it was developed by engineers at Ruhrkohle A.G., the country's largest coal mining conglomerate, in cooperation with two leading engineering and boilermaking firms—Deutsche Babcock A.G. and the Thyssen-Standard Boilers consortium.

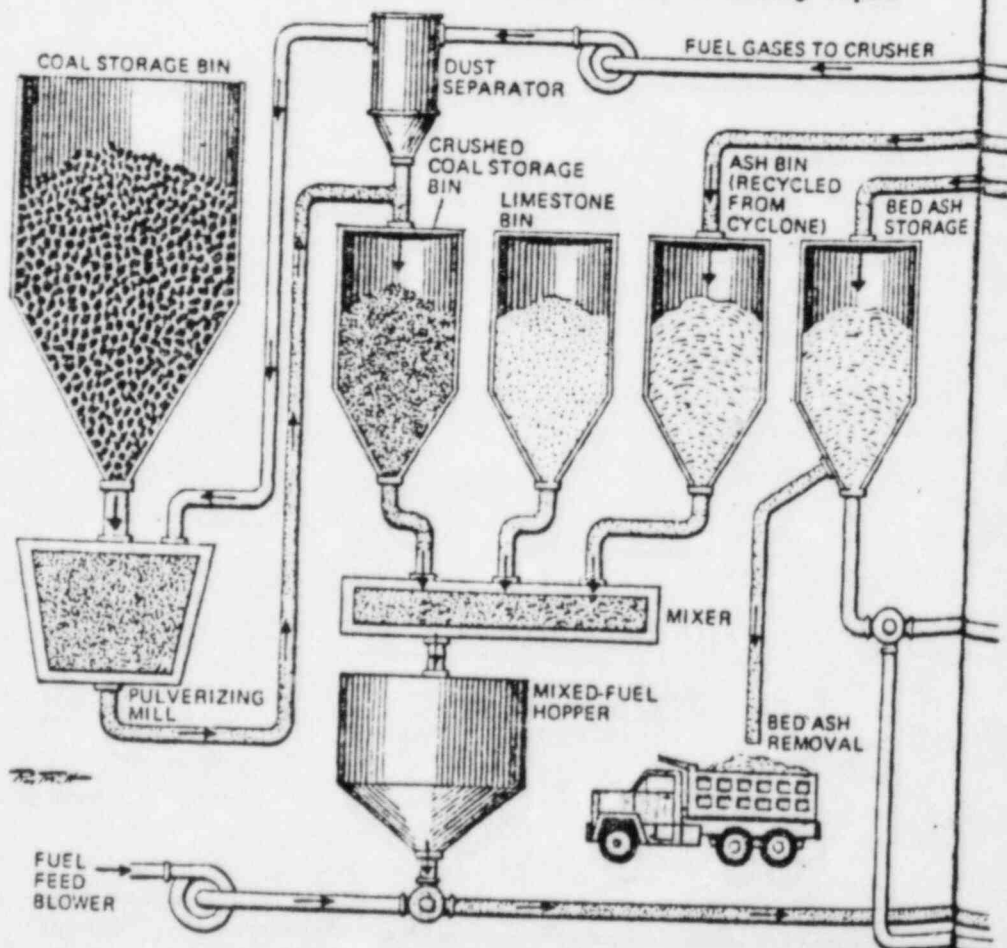
"Of course," concedes Hermann Krischke, project chief at Ruhrkohle A.G. in Bottrop, "the principle of the fluidized bed is hardly new. It's been known since the 1920s, when it was used for various catalytic processes and the calcination of pyrites. But it was rediscovered—as a means of coal combustion—after the first oil crisis in 1974."

At first glance, the principle seems relatively simple: Pulverized coal is mixed with a certain amount of forced air to lubricate it and make it flow like a fluid. In the process developed by Krischke's team, coal,



Germany's largest fluidized bed combustion power plant is 35-megawatt burner at Fläming, near Düsseldorf.

crushed to fine grains, measuring about 6 millimeters in diameter, is fed into the burner. Simultaneously, the combustion air is blown into the chamber through a perforated distributor plate. The air churns the coal into an eddy about 3 feet high. This is called the "bed" and it behaves, physically, like a boiling liquid



while it burns. That makes for more even temperature distribution and provides very high thermal efficiency. The heating surfaces—water pipes to produce steam—are immersed directly into this swirling eddy in order to provide optimum transfer of heat.

"Because of the high heat transfer coefficient," says Krischke, "combustion can be kept at 800° to 900° C., instead of the 1,600° you have in conventional systems. As a result of the lower temperatures, there is virtually no formation of nitrous oxides.

"Even more important than that, crushed or pulverized limestone can be mixed with the coal to act as a desulfurizing agent. At temperatures ranging from 800° to 900°, the limestone is converted into calcium oxide and combines with the sulfur dioxide that is released from the coal to form calcium sulfate—that is, gypsum. The gypsum becomes part of the residual ash which can be used as

an aggregate for building materials.

In theory, SO<sub>2</sub> emissions could be eliminated almost totally by the process, depending on how much limestone is added, and on several other factors. For all practical purposes, though, a ratio of 8 to 10 percent limestone suffices to reduce SO<sub>2</sub> emissions by 80 percent—enough to call the flue gas "environmentally clean" and meet even the strictest pollution-control standards now in effect.

There are other important benefits besides clean combustion, as well. The thermal efficiency is very high—95 percent and more. That means very small heat-transfer areas are needed, which makes for compact burner and power-plant designs. Capital investment costs can be cut substantially. And operating costs are judged to be as much as 30 percent lower than in conventional systems.

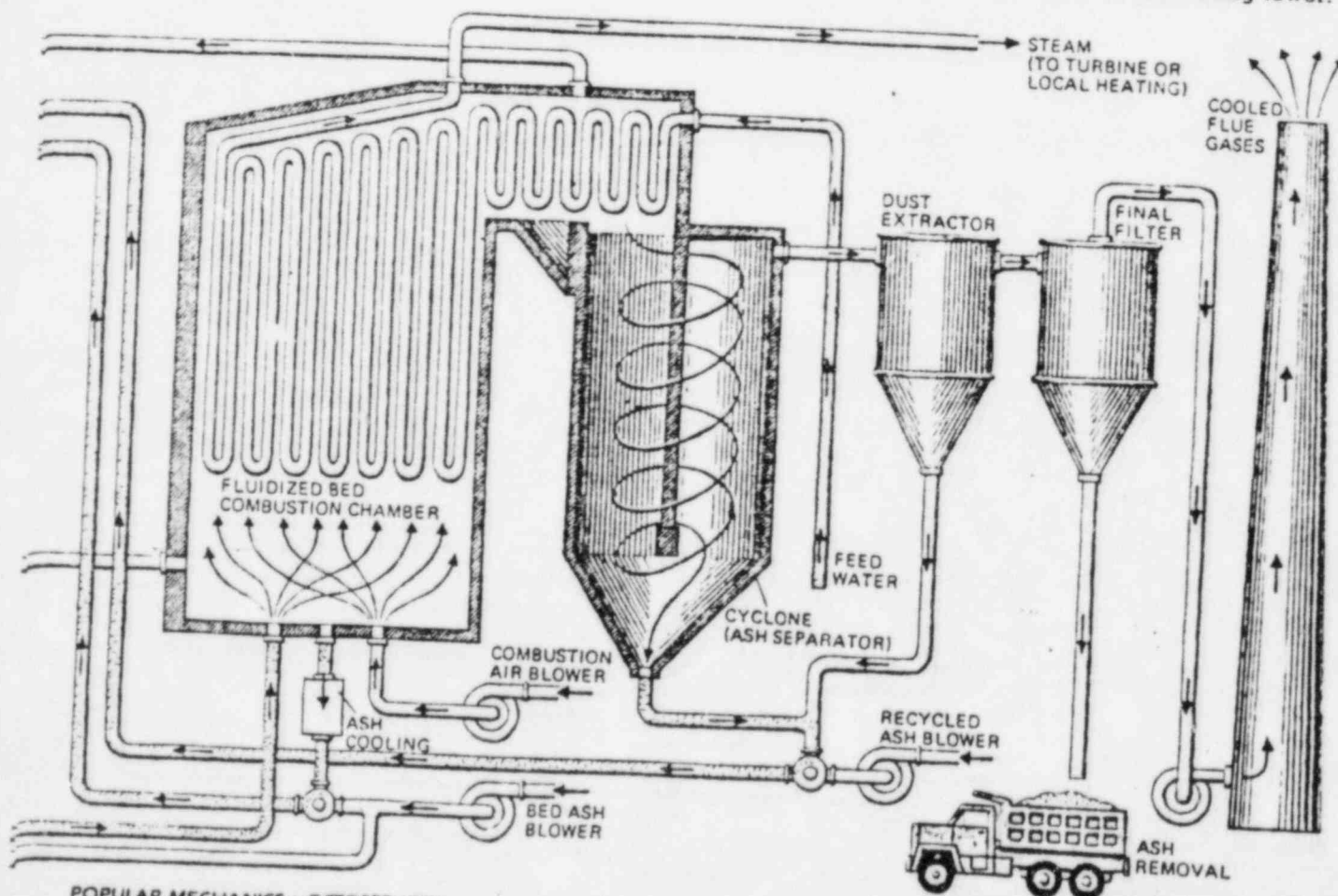
Moreover, even low-grade coal with a high ash or sulfur content and tailings of low calorific value can be converted into energy without the slightest pollution impact. That not

only reduces the fuel costs, but saves reserves of higher quality coal.

As part of the development project, two prototype plants were built and have proven highly successful. A 35-megawatt unit, used as a combination electrical power and district heating station (see diagram) was set up by Ruhrkohle and Babcock in Flingern, a suburban district of Düsseldorf. A smaller plant, with a 6-megawatt capacity, built by the Thyssen-Standard Boilers consortium, was installed at Ruhrkohle's "King Ludwig" mine in the city of Recklinghausen to produce steam for central heating and industrial boilers.

Many additional plants are now under construction or on order. A 230-megawatt station is planned in Volkligen in the Saarland.

"The plant in Volkligen," says Krischke, "will be the first coal-burning power station in the world without a chimney. The flue gases, totally desulfurized, electrically filtered and cooled down to under 200° C., will leave via the cooling tower."



Editor: Rutin Nelson  
Contributor: John Dornberg



# Beaver Valley

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Friday, July 1, 1983

## Evacuation drill ge

By JIM WILHELM  
Times Staff

Despite "significant deficiencies," federal evaluators say the public would be adequately protected in the event of an emergency at the Beaver Valley 1 nuclear plant.

In fact, observers from the Federal Emergency Management Agency called this year's evacuation drill on Feb. 16 at the Shippingport facility a "major improvement" over the 1982 exercise.

FEMA observes the preparedness of state, county and local

emergency workers while evaluators from the Nuclear Regulatory Commission grade the performance of plant operators like Duquesne Light Co.

The Times has previously reported that a poor grade given the 1982 evacuation exercise at Beaver Valley 1 never saw daylight. The negative review by on-site federal advisers was changed to a favorable report by a regional director of the Federal Emergency Management Agency who never saw the drill.

Copies of the final evaluation re-

ports on the 1983 exercise were recently obtained by the Times. Among other things, the reports reveal that:

- Travelers and others using public facilities such as motels, restaurants and parks within the 10-mile evacuation area around Beaver Valley 1 were not notified of the mock evacuation.

- It would have required several hours and some 125 ambulances — some called in from as far away as 80 miles — to evacuate 290 handicapped persons identified by Bea-

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ver County and four county municipalities participating in the drill. Even then, the report noted, some ambulances would have had to make several trips to evacuate everyone.

The unavailability of ambulances was graphically demonstrated at Beaver Valley 1, where the NRC reported the elapsed time between the request for an ambulance and its arrival was about one hour and 10 minutes.

- Center Township officials were not sure they were to evacuate resi-

dents there because the Beaver County Emergency Operations Center never confirmed the evacuation order.

- Beaver County failed to notify Center Area schools at the alert stage. In fact, the schools superintendent was notified by Center Township emergency operations center of the alert, site emergency and general emergency stages even though it is a county operations center responsibility.

- Instruments for measuring and recording radiation levels were not

available to Beaver County emergency workers. In addition, the report noted workers in Shippingport and Industry were inadequately trained on monitoring equipment.

Federal evaluators were equally critical of emergency preparation by county and state officials in Hancock County, W. Va., and Columbiana County, Ohio — the other two "risk counties" located within the 10-mile evacuation area. The observers reported:

- There was "considerable con-

(See Drill Page A9)

# Drill

(Continued from Page A1)

fusion" as to who was in charge of the accident assessment response for the state of Ohio.

- Ohio would have been "more prudent" to have ordered residents to take shelter due to uncertain data for mock radiation releases. Radiation doses received by field monitoring teams were not carefully monitored by the state.

- Incorrect radiation level data led West Virginia to order an evacuation of three sectors and sheltering in others. More significantly, however, was the revelation that transmission of the crucial information was delayed more than 25 minutes.

- When the evacuation order was issued, most of Hancock County's 64 school buses targeted for use in evacuating residents without other means of transportation were in use for mid-afternoon school dismissals — with no means of contacting the drivers. The county requested 50 buses from neighboring Brooke County, but these were also in use.

A similar question about the availability of bus service was one of two major deficiencies which almost led FEMA to close the Indian Point nuclear reactor near New York City several weeks ago.

Westchester County, where the Indian Point reactors are located, had not obtained commitments for buses and drivers in an emergency. Consolidated Edison and the New York Power Authority subsequently obtained letters of intent from three bus companies to provide buses, but not drivers.

New York Gov. Mario Cuomo offered state workers to drive the buses. FEMA has scheduled a third

drill at Indian Point to test the proposal and to determine if the plant should be shutdown for failing to demonstrate it can implement its emergency preparedness plan.

Yet, the unavailability of buses and other problems found with this year's exercise at the Beaver Valley 1 plant were listed in the final evaluations as "minor deficiencies" or as special evacuation problems which "have not been adequately addressed."

Federal evaluators concluded state, county and local emergency organizations within the 10-mile evacuation area around Beaver Valley 1 "demonstrated the capability ... to protect the health and safety of the public" in the event of an emergency at Beaver Valley 1.

FEMA cited several bright spots in the exercise, particularly the excellent coordination of siren sounding for the mock evacuation in all three "risk counties." Except for a brief, early sounding of sirens in Industry, the coordination between sirens and mock emergency broadcasts on radio and TV was given good marks.

Beaver County received special accolades for the internal response at its operations center and its demonstration of an emergency station at Big Knob Grange to certify farmers returning to the evacuation zone to care for their animals.

Duquesne Light Co. also received good reviews for its general performance during the drill.

The director of emergency response for Hancock County, which was sharply criticized in 1982, "demonstrated effective and capable leadership" during the exercise,

evaluators reported. Columbiana County was also credited for substantial improvements at its emergency center.

FEMA Region 3, which graded the performance of Beaver and Hancock counties, did not specifically label deficiencies as "significant" or "minor" as its counterpart team from Region 5 did in grading Ohio.

Instead, the word "critical" was used by FEMA Region 3 to describe significant problems in Beaver and Hancock counties' emergency response plans. For example, Region 3 evaluators again expressed concern over confusion in communications between Beaver County and the four participating municipalities — Shippingport, Industry, Alliquippa and Center Township.

Similar breakdowns occurred during the 1982 drill: Three out of four Beaver County municipalities participating in the drill never received clear orders to evacuate.

"Once a protective action has been initiated," FEMA evaluators noted in the 1983 report, "it is critical that a continuous flow of communications be established between the county and the municipalities in order to ... guard against confusion over where things stand at any given moment."

Through joint training efforts, FEMA noted Ohio and Columbiana County have reduced 17 "significant deficiencies" observed during the 1982 exercise to only a handful during this year's drill.

Federal observers also found "numerous minor deficiencies" in the preparedness of Ohio and Columbiana County. Half of the minor

deficiencies cited in the 1983 exercise were repeated from the 1982 drill, observers noted.

Most of the minor deficiencies, FEMA noted, could be easily corrected, while others may be delayed due to the allocation of money.

In the report, Ohio offered logical explanations for most of its significant deficiencies. For example, the state indicated helicopters that would be used to deliver radiation monitoring samples in an actual emergency because of the expense: \$600 per hour.

Columbiana County also responded logically in response to FEMA's claim that Columbiana County was deficient for not demonstrating it could operate its operations center on a 24-hour basis. County emergency coordinator Melvin Lipplatt reported he provided FEMA with a communications personnel roster during the Feb. 16 drill to show he could provide 24-hour capability.

"The economic situation in Columbiana County makes it very difficult to expect 100 percent participation in an exercise," he noted.

However, Ohio offered no explanation for not demonstrating recovery and re-entry procedures in areas affected by simulated radiation fallout — even though the drill scenario called for this to be included in the exercise.

In fact, after receiving word that Duquesne Light had terminated its portion of the exercise, FEMA reported the operations staff at Ohio's emergency operations center "simply got up and left."

As a result, FEMA reported, pro-

cedures and their implementation for re-entry and relaxation of protective measures could not be evaluated because the state did not go through with the scenario.

Ohio later demonstrated recovery and re-entry procedures to FEMA during the April exercise at the David-Besse nuclear power plant near Toledo.

## Security hiring, firing act of one

By JIM WILHELM  
Times Staff

Ambridge Water Authority director Frank Dodaro was authorized Thursday to act as a "committee of one" over the hiring and firing of security guards at the authority's J.C. Bacon Dam and Reservoir.

By a 3-1 vote, Dodaro as chairman of the police committee was empowered by the authority to "appoint, replace and supervise" the approximately 13-member security force which patrols around the lake formed by the dam on Service Creek in Raccoon and Independence townships.

Chairman George Modrovich and directors George Cassell and Dodaro approved the resolution. Director John Smetanka cast the lone negative vote after learning only Dodaro and the authority chairman would have approval over who is hired and fired on the force.

Later, when Smetanka again sought to have Tom Modrovich, Chris Fontana and John Chevarini appointed to the force, Dodaro told Smetanka: "We'll talk about it lat-

and \$2,468 to study revenue sources and prepare figures for the rate hike which went into effect April 1 for authority customers.

Miller claimed the amount of information requested by Harmony Township solicitor Bernard Rabik about the rate hike was excessive. "I think it's absurd he requested the amount of information he did," Miller said. "I think it's absurd for us to spend hours copying things and researching them."

The authority agreed with Miller's recommendation that certain information given to attorneys of other customers be provided to Harmony Township. Additional information, Miller said, could be acquired by coming to the authority business office.

Joseph Rodio, secretary of the authority's business office, was also named as business office manager by board action. There will be no change in Rodio's salary with the new title.

The authority also:

- Learned there were 14 new residential tap-ins at Ryan Homes' Northview Estates