ILLINOIS POLLUTION CONTROL BOARD
April 2, 1998

TRI STAR MARKETING, INC.,	)	
	)	
Petitioner,	)	
	)	
v.	)	PCB 97-199
	)	(Water-Well Setback Exception)
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	)	
	)	
	)	
Respondent.	)	

MARK P. MILLER, OF MEYER, CAPEL, HIRSHFELD, MUNCY, JAHN & ALDEEN, APPEARED ON BEHALF OF PETITIONER;

STEPHEN C. EWART APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by R.C. Flemal):

This matter comes before the Board upon a petition filed by Tri Star Marketing, Inc. (Tri Star). Tri Star requests that it be granted an exception from the water-well setback requirements found at Section 14.2 of the Environmental Protection Act (Act) (415 ILCS 5/1 et seq. (1996)). Tri Star wants to place underground petroleum storage tanks within the minimum[1] setback zones of two existing community water supply wells. Construction of this type is prohibited unless an exception has been granted by this Board.

The Act gives the Board authority in this matter. The Act charges the Board with granting exception from the setback requirements where the Board finds that the petitioner has made several necessary showings. 415 ILCS 5/14.2(c) (1996). The Act requires the Illinois Environmental Protection Agency (Agency) to appear in hearings on petitions for exception. The Agency is also charged, among other matters, with the responsibility of investigating each petition for exception and making a recommendation to the Board as to the disposition of the petition. 35 Ill. Adm. Code 106.603. The Agency filed its recommendation on November 14, 1994.

As presented below, the Board finds that Tri Star has made the necessary showings for the grant of exception. Accordingly, the exception will be granted.

FACILITY

Tri Star owns property located in Byron, Illinois, at the corner of Walnut and Main Streets. It wants to construct a gasoline station, car wash, and convenience store on the site. The property is currently vacant, but previously had been occupied by a gasoline station. The previous station had underground storage tanks (USTs), which were removed in 1988.

Two community water supply wells owned by the City of Byron are located across Main Street from the Tri Star property. The wells are known as Byron #1 and #2. The two wells are located 250 and 310 feet, respectively, from the intended position of the new USTs. Amended Pet. at 2.

PROCEDURAL HISTORY

[1] The water-well setback statute also provides for optional maximum setback zones. See 415 ILCS 5/14.3. No maximum setbacks have been established for the wells at issue, and hence provisions regarding maximum setback zones are not applicable.

The original petition in this matter was filed on May 12, 1997. On August 14, 1997, Tri Star filed an amended petition. The amended petition was also entered into the record at hearing as Petitioner's Exhibit #7; exhibits A through D of the amended petition were also entered as Petitioner's Exhibits #1-4, respectively.

Hearing was held on December 1, 1997, in Oregon, Illinois, before hearing officer John Burds. Tri Star presented the testimony of John D. Stewart, president of Tri Star Marketing, and Karl Newman, a geologist employed by Midwest Engineering Services, Inc. The Agency presented the testimony of Lynn Dunaway, a geologist for the Agency, Brett Hanson, an environmental protection specialist for the Agency, and Andrew Jackson, permit officer for the City of Byron. Brian Brooks, attorney for the City of Byron, also testified.

At hearing Tri Star requested that the Board decide this case before March 15, 1998, so that Tri Star could "take advantage of the full construction season." Tr. at 127. This request was formalized in a motion filed on December 19, 1997. The motion was granted by Board order on January 8, 1998, "consistent with the Board's time and resources."

Tri Star filed its post-hearing brief on January 12, 1998. The Agency filed a response brief on January 23, 1998. Tri Star has not filed a reply brief.

On February 19, 1998, the Board entered an order in which it directed the parties to address whether a 200-foot or 400-foot minimum setback zone applies to the wells at issue. The Agency filed a response on March 4, 1998. Tri Star filed a response on March 9, 1998.

STATUTORY AND REGULATORY FRAMEWORK

The Act at Section 14.2 establishes provisions designed to protect groundwater from possible contamination. Among these provisions is the establishment of a setback zone around each existing community water supply well.[2] Within the setback zone no "new potential source" nor "new potential route of groundwater contamination" may be sited, unless this Board has granted an exception. 415 ILCS 5/14.2(c) (1996). Underground storage tanks are potential sources of groundwater contamination. 415 ILCS 5/3.60 (1996).

The Board must grant a requested exception when the Board finds that adequate proof has been presented "that compliance with the setback requirements . . . would pose an arbitrary and unreasonable hardship upon the petitioner, that the petitioner will utilize the best available technology controls economically achievable to minimize the likelihood of contamination of the potable water supply well, that the maximum feasible alternative setback will be utilized, and that the location of such potential source . . . will not constitute a significant hazard to the potable water supply well." 415 ILCS 5/14.2(c) (1996).

APPLICABLE SETBACK DISTANCE

Section 14.2 of the Act provides that the minimum setbacks around community water supply wells may be either 200 or 400 feet. The 200-foot distance applies to wells that derive water from confined aquifers; the 400-foot distance applies to wells that derive water from unconfined aquifers. 415 ILCS 5/14.2(d). Inasmuch as Tri Star's proposal is to place USTs at distances of 250 and 310 feet, respectively, from Byron Wells #1 and #2, Tri Star needs an exception only if the 400-foot setback applies.

It was not apparent to the Board in the initial record whether the applicable setback distance is 400 feet. A number of the features of the wells implied that the source aquifers of the wells could be confined rather than unconfined. These features include the substantial depth at which the wells are finished (1400 and 700 feet - Tr. at

[2] It is uncontested that the wells at issue are community water supply wells as defined at Section 3.04 of the Act (415 ILCS 5/3.04).

68), casing of the wells through their upper 200 feet (Tr. at 68), and the presence within the wells of radium that derives from the deep aquifers. Accordingly, the Board by interim order of February 19, 1998, directed that the parties address the issue of the applicable setback.

The Agency responded that it believes the 400-foot setback applies based on the presence of no known confining beds between the land surface and the top of the open intervals of the wells.[3] The Agency further believes that various chemical aspects of the well water[4] are best explained if the source of the water is from an unconfined aquifer.

While the Board finds the Agency's lines of evidence inconclusive, the evidence is strongly suggestive that at least part of the water from Byron #1 and #2 is derived from unconfined aquifer(s). On this basis we will consider the merits of granting a water-well exception under the assumption that the 400-foot setback applies.

MERITS OF EXCEPTION REQUEST

Of the four items that the Board must consider in review of a water-well setback request, two are uncontested by the parties. These are "that the petitioner will utilize the best available technology controls economically achievable to minimize the likelihood of contamination of the potable water supply well", and "that the maximum feasible alternative setback will be utilized." 415 ILCS 5/14.2(c)(1996). The Agency has stipulated that, based on review of the Tri Star petition in detail, it concludes that the technology proposed by Tri Star constitutes the best available control technology. Tr. at 19. Tri Star contends and the Agency does not dispute that the USTs would be placed on the property at the maximum distance possible from the wells. Tr. at 15-16.

The Board has reviewed the evidence regarding best available technology controls and siting at the maximum feasible alternative setback. We find that Tri Star has met its burden on these two items, and we accordingly will not discuss them further.

The remaining two items, whether "compliance with the setback requirements . . . would pose an arbitrary and unreasonable hardship upon the petitioner," and whether "the location of such potential source . . . will not constitute a significant hazard to the potable water supply well," are contested. We first address the issue of the hazard to the potable water supply wells.

Tri Star raises three principal arguments to support its contention that grant of the water-well setback exception would cause no hazard to Byron #1 and #2. The first argument is that the design and operation of the intended UST system makes the contamination unlikely. The second argument is that the location and construction of the wells further makes contamination unlikely. The third argument is that Byron #1 and #2 are not currently in active use, and may be shut down entirely in the near future. Amended Pet. at 4-5.

Tri Star intends to install double-wall fiberglass USTs along with double-wall fiberglass lines and piping sumps underneath the dispensers. Amended Pet. at 2; Tr. at 20. Tri Star also intends to install an electronic continuous leak detection system plus a pressurized line leak detection system. Amended Pet. at 2-3; Tr. at 20.[5] In regard to the detection systems, Tri Star contends:

---

[3] In general, the stratigraphic sequence consists of surficial sands and gravels overlying the St. Peter Sandstone. The St. Peter Sandstone is the uppermost bedrock aquifer in the Byron area. Both Byron #1 and #2 are open to the St. Peter.

[4] E.g, the presence of anthropogenic contaminants (trichloroethylene, ethylbenzene, and xylene) and "oxidized" groundwater.

[5] Specification of components of the intended UST and leak detection and monitoring systems occur as attachments to Tri Star's original petition for exception, filed May 12, 1997.

> The use of these redundant controls allows leaks to be detected at very low levels, one gallon or less, and counteractive measures to take place nearly immediately. Leaks trigger the alarm system. Once an alarm regarding a possible leak is activated, the tank system will be shut down by Tri Star's station managers for investigation. Confirmation of a leak will lead to immediate corrective action activities beginning with pumping out the tank to prevent further leakage. In this way, releases to the environment are totally minimized, as contemplated by the 1998 federal UST design and performance standards. Amended Pet. at 3.

The Agency does not dispute that Tri Star's leak detection system is intended to minimize the chances of releases from the USTs. Tr. at 73. Moreover, as noted above, the Agency agrees that these systems constitute best available control technology. However, the Agency contends that the UST system could lose anywhere from 0.1 to 0.2 gallons per hour without triggering the leak sensors, and that this leaked product could cause contamination of Byron #1 and #2. Tr. at 70.

Tri Star next contends that the site geology and the construction of Byron #1 and #2 are such as to minimize potential for contamination. Tri Star cites to the presence of casing in the upper 200 feet of the two wells, the depth of the open intervals of the wells, and likely occurrence of the bedrock surface between the ground surface and the open interval as evidence of a low potential for possible leakage to migrate into the wells. Amended Pet. at 4-5; Tr. at 38-39.

The Agency contends that pollution present in Byron #1 and #2 is itself sufficient evidence to dispute Tri Star's conclusion regarding the potential for contamination. That the two wells are currently polluted is undisputed. Contaminants include radium, chromium, and several organic compounds including trichloroethylene. Tr. at 77, 87, 91-103.

Tri Star's third point regarding the issue of hazard is that Byron #1 and #2 are not currently in active use, and as such the wells pose no threat to human health. The apparent actual status of Byron #1 and #2 is that they are in "emergency standby mode." Agency Brief at 6. Byron #1 and #2 were removed from active service because of their pollution. Tr. at 115. Byron currently obtains its water supply from Byron #3, and is in the process of developing a fourth well, Byron #4, for additional daily use. Tr. at 115. The City of Byron asserts that Byron #1 and #2 will not be necessary to the system when Byron #4 comes online, but that it is uncertain whether it will close Byron #1 and #2 at that time.

Upon review of the various arguments made regarding the hazard posed by Tri Star's potential USTs to Byron #1 and #2, the Board finds that the USTs would not constitute a significant hazard to the potable water supply. We are persuaded by the balance of the evidence, with particular weight given to protection offered by the technology Tri Star intends to employ. Moreover, given that Byron #1 and #2 are not in current use, and that it is unlikely that they will again be put online, we believe that justification for the highest level of protection is not present.

We next look at the issue of hardship. The Agency contends that compliance with the setback requirements would not constitute an arbitrary and unreasonable hardship upon Tri Star because Tri Star should have been aware of the existence of the setbacks before purchasing the Byron property. Tr. at 69; Resp. Brief at 3. The Agency observes that the setbacks came into existence in 1988 when Section 14.2 became effective, and that Tri Star did not purchase the Byron property until 1994. Tr. at 68. The Agency concludes that "Tri Star should have been aware of the prohibition of locating new potential secondary sources within setback zones." Tr. at 69.

The Board is unpersuaded by the Agency's arguments regarding arbitrary and unreasonable hardship. In particular, Tri Star's purchase of the property after the effective date of the setbacks is irrelevant to whether denying the exception would be an arbitrary and unreasonable hardship. The setback statute provides for exceptions. These exceptions are not limited to persons who owned property since before the effective date of the statute. Similarly, the statute does not condition exceptions based upon the owner's awareness of the setback

requirements at time of purchase. Tri Star simply took a risk, knowingly or unknowingly, when it bought the property, that an exception may not be granted.

A showing of arbitrary and unreasonable hardship is a necessary condition in the Board's grant of water-well exceptions. See 415 ILCS 5/14(c). In similar circumstances, both the Board and the Illinois Appellate Court have found that a hardship is arbitrary or unreasonable when it outweighs the injury to the public or environment. See Marathon Oil Co. v. IEPA and IPCB, 242 Ill. App. 3d 200, 610 N.E.2d 789, 793, 182 Ill. Dec. 920, 924 (5th Dist. 1993), (The petitioner must . . . show that the hardship it will encounter from the denial of the variance will outweigh any injury to the public or environment from the grant of the variance. Only if the hardship outweighs the injury does the evidence rise to the level of an arbitrary or unreasonable hardship.) Therefore, for grant of a water-well exception, there must be a showing that the hardship outweighs any injury to the public or environment.

Tri Star contends that it would suffer hardship in the form of economic loss if denied the setback exception because it would loose both a portion of the purchase costs of the site and potential revenues. Amended Pet. at 3. Tri Star further contends that the City of Byron would loose the approximately $750,000 worth of improvements that Tri Star would invest in the site and the estimated $2,000,000 annual sales the facility would generate. Tr. at 17. The City of Byron notes that the Tri Star site is "probably one of the most valuable commercial properties in the City of Byron" and that it wants the site developed for one use or another. Tr. at 117-8.

Based upon these statements, the Board finds that inability to develop the site would cause hardship. Having found that the UST would not constitute a significant hazard to the potable water supply, and hence no significant potential injury to the public or environment, the Board accordingly also finds that the hardship to Tri Star caused by denying the water-well exception rises to the level of arbitrary and unreasonable hardship.

Based upon the above findings, the Board concludes that Tri Star has met the necessary conditions for the grant of a water-well setback exception. The Board accordingly finds that exception must be granted.

As a final matter, the Board notes that the Agency recommends that, if an exception is to be granted, it contain as a condition that the Agency and Tri Star conduct a joint inspection of the site. The purpose of the joint inspection is to locate any existing monitoring wells or pump and treat wells that have not been sealed. Agency Brief at 7. The Agency further recommends that Tri Star be ordered to properly seal any such wells. Agency Brief at 7. The Agency believes that such wells might exist because the Tri Star property was the site of a UST cleanup in the late 1980's and the Agency has no record that monitoring or pump and treat wells were sealed.

Inasmuch as unsealed monitoring or pump and treat wells would constitute primary routes of groundwater contamination, and their presence would accordingly seriously alter conclusions regarding the hazard potential of new USTs on the site, the Board agrees that grant of the exception needs to be conditioned upon closure of any such wells. The Board will so order. If Tri Star agrees to accept this conditional grant of the water-well exception, it will need to so specify by filing a Certificate of Acceptance (see Certificate of Acceptance language on page 8).

This opinion constitutes the Board's findings of fact and conclusions of law in this matter.

ORDER

Tri Star Marketing, Inc., is hereby granted, pursuant to Section 14.2(c) of the Environmental Protection Act (415 ILCS 5/14.2(c) (1996)), an exception of the prohibition of siting a new potential source within the setback zone of a community water supply well. The exception applies to the underground storage tanks and the two community water supply wells described in the opinion that accompanies this order.

1) As a condition of grant of the exception, Tri Star Marketing, Inc., in cooperation with the Illinois Environmental Protection Agency, shall conduct an inspection of the Tri Star property for the purpose of identifying any unsealed monitoring or pump and treat wells.

2) As a further condition of the grant of this exception, Tri Star Marketing, Inc., shall cause any such unsealed wells to be sealed according to standard sealing procedures.

IT IS SO ORDERED.

Board Member K.M. Hennessey concurred.

CERTIFICATION

If Tri Star Marketing, Inc., chooses to accept this exception subject to the above conditioned order, within forty-five days of the date of this order, Tri Star Marketing, Inc., must execute and forward to:

Stephen C. Ewart
Illinois Environmental Protection Agency
Division of Legal Counsel
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

a Certificate of Acceptance and agreement to be bound to all terms and conditions of the granted exception. The 45-day period shall be held in abeyance during any period that this matter is appealed. Failure to execute and forward the certificate within 45-days renders this exception void. The form of the certificate is as follows.

I (We), _____, hereby accept and agree to be bound by all terms and conditions of the order of the Illinois Pollution Control Board in PCB 97-199, April 2, 1998.

_____
Petitioner

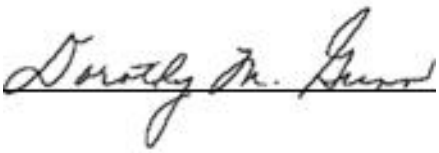
_____
Authorized Agent

_____
Title

_____
Date

Section 41 of the Environmental Protection Act (415 ILCS 5/41 (1996)) provides for the appeal of final Board orders to the Illinois Appellate Court within 35 days of the date of service of this order. Illinois Supreme Court Rule 335 establishes filing requirements. See 172 Ill. 2d R. 335; see also 35 Ill. Adm. Code 101.246, Motions for Reconsideration.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above opinion and order was adopted on the 2nd day of April 1998, by a vote of 6-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board