

ILLINOIS POLLUTION CONTROL BOARD
October 7, 2010

VILLAGE OF MORTON,)
)
Petitioner,)
)
v.) PCB 10-83
) (Community Well Setback Exception)
ILLINOIS ENVIRONMENTAL)
PROTECTION AGENCY,)
)
Respondent.)

THOMAS E. DAVIES OF THOMAS E. DAVIES, P.C, APPEARED ON BEHALF OF PETITIONER;

JOEY LOGAN-WILKEY OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY APPEARED ON BEHALF OF RESPONDENT.

OPINION AND ORDER OF THE BOARD (by G.L. Blankenship):

On April 14, 2010, the Village of Morton (Morton) filed a petition pursuant to Section 14.2(c) of the Environmental Protection Act (Act) seeking an exception from the Act and the Board's water well setback regulations. 415 ILCS 5/14.2(c) (2008); 35 Ill. Adm. Code 106.300 *et seq.* Morton requested the exception so that it may lawfully build a de-icing agent storage facility (Facility) within the minimum setback zones of three of its community water supply wells (Wells #7, #9, and #10). On June 18, 2010, Morton narrowed the request to two wells (#7 and #9). Later on July 28, 2010, Morton amended its petition and requested that the exception also apply to the maximum setback zone for six of its community water supply wells (#5, #6, #7, #8, #9, #10). Morton is the owner of the affected water wells. The Illinois Environmental Protection Agency (Agency) recommends that the Board grant the exception. Today the Board grants the petitioner's requested exceptions from the minimum setback zones for two wells (#7 and #9) subject to the conditions contained in this order, and finds exceptions for the other four wells are unnecessary.

PROCEDURAL HISTORY

On April 14, 2010, Morton filed its petition for community well setback exception (Petition or Pet.). The Petition sought an exception from the community water supply well setback requirements in Section 14.2 of the Act for wells 7, 9 and 10. Pet. at 1 and 5. The Board accepted the Petition on May 6, 2010 and granted Morton's request for an expedited hearing.

On May 17, 2010, the Agency filed its response to the petition for water well setback exception (Response or Resp.). The Agency noted in its response that the proposed facility did not fall within the 200 foot setback zone of Well 9 and therefore no exception from the setback

zone of Well 9 would be required. Resp. at 2. The Agency recommended that the Board grant the setback exception for Wells 7 and 10 provided that certain requirements are met. Resp. at 8-9.

On June 1, 2010, the Board's hearing officer issued an order requesting responses from Morton on fourteen Board questions. On that same day, Morton filed documents addressing the Agency's Response requirements. On June 18, 2010, Morton filed its response to the June 1, 2010 hearing officer order (June 18 Resp.).

On July 8, 2010, a hearing was held in this matter in the Police Department Training Room at 375 West Birchwood in Morton. Thomas Davies appeared on behalf of Morton. Joey Logan-Wilkey appeared on behalf of the Agency. Two witnesses appeared on behalf of Morton; the first being Robert Wraight, superintendent of public works for the Village of Morton; and the second being Lonn Stalter, water treatment superintendent for the Village of Morton. Also present was Lynn Dunaway, an Environmental Protection Specialist in the Groundwater Section of the Bureau of Water for the Agency. No members of the public were present. On July 16, 2010, Morton filed its brief in support of the Petition. The Agency did not file a brief and no public comments were received.

On July 21, 2010, the hearing officer issued an order directing new questions to Morton and also requesting clarification on the maximum setback zone for each of the well. On July 28, 2010, Morton filed its response to the order (July 28 Resp.) and also amended its Petition *instanter* to seek an exception from the maximum setback zone for wells five, six, seven, eight, nine and ten. The Board accepted the amended petition on August 5, 2010.

On September 7, 2010, a hearing officer order directed Morton to file geologic logs for wells five, six and eight along with pertinent portions of the fact sheet from the 2002 Source Water Assessment of Morton's community wells. Morton filed these documents on September 16, 2010 (Sept. 16 Resp.). On September 27, 2010, the Board received the Agency's response to this filing (Agency Supp. Resp.). The Agency's response was postmarked September 24, 2010, and was therefore timely filed under the Board's mailbox rule. *See* 35 Ill. Adm. Code 101.300(c).

BACKGROUND

Morton is seeking a community water supply well setback exception to accommodate construction of a new de-icing agent storage facility. Pet. at 1. The proposed Facility would be considered as a potential secondary source under Section 3.355 of the Act because Morton plans to store more than 50,000 lbs of de-icing agent in the new facility. *See* 415 ILCS 5/3.355 (2008). The proposed location of the Facility is within the 200-foot minimum setback zones for Morton's community water supply (CWS) wells #7 and #10, and within the established 1000-foot maximum setback zones for wells #5, #6, #7, #8, #9, and #10. June 18 Resp. at 1, Amended Petition at 1-2. Since the proposed location is within the minimum setback zones of the CWS wells, Morton needs a CWS well exception in order to proceed with the construction of the storage facility.

Morton states that it uses rock salt (sodium chloride) and liquid calcium chloride as de-icing agents during snow removal operations. Pet. at 1. Morton currently has an existing 150-ton

remote de-icing agent storage facility. However, under some conditions, 150 tons of rock salt is not enough to supply Morton during a single storm event. Under those conditions, Morton relies upon semi-tractor deliveries of additional salt to complete snow removal operations during a single storm event. Pet. at 1-2, 3. Morton states that the Village must pay a premium for deliveries of salt in the winter on an “as needed basis,” resulting in a nearly 40% increase in the annual costs for rock salt - approximately \$43,000 per year. Pet. at 3, Exh. B. Morton states that the Village can save \$20,000 to \$30,000 per year by purchasing through a state contract in the off season if Morton has additional room to store the de-icing agent. Tr. at 6-7.

Morton indicates that there is insufficient room to expand the existing 150-ton remote de-icing agent storage facility since it is surrounded by commercial properties and businesses. Morton therefore proposes to construct a new de-icing agent storage facility on a parcel of land owned by Morton between the Public Works Garage at 450 Detroit Avenue and the Water Treatment Plant at 500 Detroit Avenue. Pet. at 1-2. Morton states that it does not own any other property where a new de-icing agent storage facility could be constructed. Pet. at 1.

Morton characterizes the proposed location as being conveniently located next to the Public Works Garage where trucks and equipment that spread the de-icing agent are stored. Additionally, the proposed location is on a main arterial road, enabling delivery and storage of the de-icing agent during a snow storm to facilitate snow removal operations. Pet. at 2-3.

The proposed location for the Facility is also located near Morton’s water treatment plant and community water wells. Pet. at 1. The proximity of the proposed de-icing agent storage facility to CWS wells is the reason Morton seeks a well setback exception from the Board.

APPLICABLE STATUTES AND REGULATIONS

Section 14.2 of the Act states in part:

New potential source or route; minimum setback zone.

- (a) Except as provided in subsections (b), (c) and (h) of this Section, no new ... potential secondary source may be placed within 200 feet of any existing or permitted community water supply well or other potable water supply well.

- (c) The Board may grant an exception from the setback requirements of this Section and subsection (e) of Section 14.3 to the owner of ... a new potential secondary source. The owner seeking an exception with respect to a community water supply well shall file a petition with the Board and the Agency. A petition shall be accompanied by proof that the owner of each potable water supply well for which

setback requirements would be affected by the requested exception has been notified and been provided with a copy of the petition. A petition shall set forth such facts as may be required to support an exception, including a general description of the potential impacts of such potential source or potential route upon groundwaters and the affected water well, and an explanation of the applicable technology-based controls which will be utilized to minimize the potential for contamination of the potable water supply well. 415 ILCS 5/14.2(a), (c) (2008).

Section 3.355 of the Act defines “potential secondary source,” in part, as:

any unit at a facility or a site not currently subject to a removal or remedial action, other than a potential primary source, which:

- (5) stores or accumulates at any time more than 50,000 pounds of any de-icing agent[.] 415 ILCS 5/3.355 (2008).

Section 3.355 defines a “new potential secondary source,” in part, as:

- (i) a potential secondary source which is not in existence or for which construction has not commenced at its location as of July 1, 1988[.] 415 ILCS 5/3.355 (2008).

Since Morton is proposing to construct a de-icing agent storage facility, Morton is also subject to the Board regulations for “new activities in a setback zone or regulated recharge area” at 35 Ill. Adm. Code 616.721 *et seq.* (Subpart L: De-Icing Agent Storage and Handling Units). These regulations set forth requirements for design and operation, groundwater monitoring, and closure of de-icing agent storage and handling facilities.

The Board’s procedural rules for water well setback exception are set forth at 35 Ill. Adm. Code 106.300 *et seq.* (Subpart C: Water Well Setback Exception Procedure).

STANDARD OF REVIEW

The Board’s procedural rules provide that the Board will hold at least one hearing in an exception proceeding and the hearing officer will schedule the hearing. 35 Ill. Adm. Code 106.308. The Board will grant an exception where the petitioner has presented adequate proof:

that compliance with the setback requirements of this Section 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 or potential route will not constitute a significant hazard to the potable water supply well. 415 ILCS 5/14.2(c) (2008).

MORTON'S PETITION FOR EXCEPTION

Morton's petition and amended petition detail Morton's need to construct a new de-icing agent storage facility, the impact of the proposed location on the community water supply wells, and precautions Morton will take to protect the community water supply. The Board will summarize Morton's petition as it relates to the statutory factors for obtaining a water well setback exception in the following sections.

Arbitrary and Unreasonable Hardship

Morton explains that oftentimes during snow storm events, its current 150-ton supply of rock salt is insufficient to complete snow removal operations. Pet. at 2. Under such conditions, Morton is obligated to pay a 40% premium to have additional rock salt delivered, amounting to approximately \$43,000 per year. *Id.* at 3. Morton's Superintendent of Public Works, Mr. Wraight, testified, "[w]e can save \$20,000 or \$30,000 a year by purchasing through a state contract, but we have to have a facility where we can take all our delivery in an off season, and we can't do that now." Tr. at 6-7.

Morton is proposing to construct additional storage to stockpile de-icing agent. Morton characterizes the proposed location as being conveniently located next to the Public Works Garage where trucks and equipment that spread the de-icing agent are stored. Pet. at 2-3. Additionally, the proposed location is on a main arterial road, enabling delivery and storage of the de-icing agent during a snow storm to facilitate snow removal operations, and providing safe loading and unloading. *Id.* at 3-4.

Although located near the Public Works Garage, the proposed location for the Facility is also located near Morton's water treatment plant and community water wells. *Id.* at 1. The proposed location of the Facility is within the minimum setback zones of Wells #7 and #10 and the established 1000-foot maximum setback zones for Morton's CWS Wells #5, #6, #7, #8, #9 and #10. June 18 Resp. at 1, Am. Pet. at 1-2.

Morton states that Morton does not own any other land "that is of sufficient size and functionality to construct a new de-icing agency storage facility." Pet. at 2.

As to the option of relocating Morton's fuel depot to the proposed Facility location, Morton indicates there are no such plans. Morton indicates that the fuel depot's current placement is centrally located and used by the Village Public Works, Fire, Police, Paramedics, Park District, school district, and a county senior busing service. *Id.* Morton contends that relocating the fuel depot would remove a central location relied upon by its users. *Id.* Morton adds that even if the fuel depot were relocated, the available land would still not provide adequate space for expansion of the current de-icing agent storage facility. *Id.*

Morton has a population of approximately 17,000. *Id.* Since public safety is the responsibility of the Village of Morton, Morton states that it cannot rely upon a third party for clearing the roads. *Id.* at 3.

Best Available Technology Controls Economically Achievable

De-Icing Agent Facility Requirements

Morton attests, “[c]onstruction and operation of the de-icing storage facility shall meet the requirements of 35 IAC 616 Subpart L.” Pet. at 5. *See* 35 Ill. Adm. Code 616 Subpart L: De-Icing Agent Storage and Handling Units. Morton adds that it will comply with all the requirements of Subpart L, including the closure requirements at Section 616.725 and groundwater monitoring requirements at Section 616.723. June 18 Resp. at 3.

Morton states that “[c]onstruction of the de-icing agent storage facility will utilize best available control technologies economically achievable to minimize the likelihood of contamination of the potable water supply wells.” Pet. at 3. The proposed Facility would consist of a storage building, loading area, and an aboveground storage tank.

Morton describes the proposed storage building as a totally enclosed barn, consisting of a roof and walls to provide protection from wind and precipitation. Pet. at 3, Tr. at 6. Morton explains that the building would be constructed on an 8-inch thick concrete pad with 6-inch high concrete curb. The concrete pad and curb would prevent rock salt and/or liquid calcium chloride from migrating into adjacent soils, surface water, or groundwater. Pet. at 3. Runoff from the roof would be directed away from the facility loading pad. *Id.*

The facility loading area would also consist of an 8-inch thick concrete pad with 6-inch high concrete curb around a portion of the perimeter. *Id.* at 4. The pavement would be sloped to a dedicated catch basin to capture runoff from the loading pad. *Id.* Morton explains that instead of draining to a waterway, the collected runoff will be diverted to Morton’s wastewater treatment plant. *Id.*

Located inside the curbed loading area would also be a 5000-gallon aboveground storage tank with liquid calcium chloride. *Id.* Morton states the storage tank would be double-walled and located within the curbed area. *Id.* Any leaks would drain to the dedicated catch basin and conveyed to the wastewater treatment plant. *Id.*

Morton states that the proposed location will help to minimize the likelihood of contamination because the site is contiguous to the Public Works Garage and the water treatment plant, both of which are occupied 5 days and 7 days per week, respectively. *Id.* Because Village personnel will always be present, Morton states that Village personnel will inspect the storage facility daily for any release or spill of de-icing agents. *Id.* In addition, Morton will conduct annual facility inspections in the summer for cracks in the floor or walls, corrosion in the roof, or other items that would compromise the integrity of the containment system. *Id.* Morton states it will make repairs as needed. *Id.*

Groundwater Monitoring

Morton proposes to install three monitoring wells at the locations indicated in Exhibits A and D in compliance with 35 Ill. Adm. Code 620.505 Compliance Determination. Pet. at 5. Morton indicates that the monitoring wells will be installed at a depth of 30 feet and will meet the requirements of 35 Ill. Adm. Code 616.204(c) for groundwater monitoring systems. June 18 Resp. at 2. Morton states that monitoring will be in accordance with 35 Ill. Adm. Code 616 Subpart B Groundwater Monitoring Requirements, including provisions for providing results to the Agency within 60 days, preventive notification and preventive response, and a corrective action program. Stat. of Monitoring at 1, June 18 Resp. at 2-3, *See also* 35 IAC 616.206, 209 and 210.

Morton states that EPA Licensed Water Treatment Operators will collect samples annually in accordance with 35 Ill. Adm. Code 620.510 Monitoring and Analytical Requirements. Pet. at 5, Stat. of Monitoring Prog. at 1, June 18 Resp. at 2. The first year will include establishment of background values every other month, six times per year, followed by annual sampling each April. Stat. of Monitoring at 1, June 18 Resp. at 2, *See also* 35 IAC 616.207. Although Morton's original petition planned for sampling and analysis for only TDS and chlorides, Morton revised its monitoring program to instead include pH, specific conductance, total organic carbon, and total organic halogen. Pet. at 5, June 18 Resp. at 2.

Maximum Feasible Alternative Setback

Morton's original petition sought an exception from the setback requirements for community water supply wells pursuant to Section 14.2 of the Act. Pet. at 1. The minimum setback zone for community water supply wells under Section 14.1(a) of the act is 200 feet. 415 ILCS 5/14.1(a). In addition to the minimum setback zones, Morton's amended petition indicated that maximum setback zones of 1000 feet had been established for each of its community water supply wells under Section 14.3 of the Act by Ordinance No. 96-6 that was passed by Morton on June 17, 1996. June 18 Resp. at 1-2.

Morton states, "[t]he maximum feasible alternative setback shall be utilized by constructing the de-icing agent storage facility as show in Exhibit A." Pet. at 4. Morton's Exhibit A is a location map depicting the location of the proposed Facility in relation to the CWS wells. Morton identifies the distance from the closet point of the proposed facility to the community wells as follows:

- Well 5: 387 feet*
- Well 6: 387 feet*
- Well 7: 90 feet
- Well 8: 593 feet *
- Well 9: 240 feet
- Well 10: 120 feet

(*Based on Pet. Exh. A). June 18 Resp. at 1.

Morton states, “[m]oving the location may make the de-icing agent storage facility further from one well, but it will move it closer to another well.” Pet. at 4.

Location Not a Significant Hazard

Morton states that the Facility poses no significant hazard to Morton’s existing community water supply wells. Pet. at 5. Morton reiterates that the de-icing agent would be contained in an enclosed storage facility with concrete curb and floor adjacent to a loading area with concrete curb and floor sloped to a dedicated catch basin connected to Morton’s wastewater treatment plant. Pet. at 5. Liquid calcium chloride used for de-icing would also be contained in a double-wall aboveground storage tank within the curbed area. Pet. at 4.

Morton states the aquifer for the community water supply wells begins approximately 200 feet below grade. Pet. at 5. Morton provided copies of boring logs for wells #5, #6, #7, #8, #9 and #10 and characterized the geologic material separating the surface from the aquifer as “clay type soils”. Pet. at 5, Pet. Exh. C, Sept. 16 Resp.

Morton also provided a copy of the Agency’s “Source Water Assessment Program Fact Sheet” (Fact Sheet) prepared for the eight Morton community water supply wells. Sept. 16 Resp. The Fact Sheet states that the wells range in depth from 253 to 280 feet: Well 7 at 280 feet and Well 10 at 275 feet. The Fact Sheet indicates the wells “utilize a Sankoty sand and gravel aquifer overlain by relatively impermeable till.” Fact Sheet at 1. Based on the source characteristics, the Fact Sheet states that “[t]he Illinois EPA does not consider these wells to be geologically sensitive.” Fact Sheet at 1.

As part of a Statewide Groundwater Monitoring Program, the Fact Sheet indicates Morton’s community water supply wells were sampled for inorganic chemicals (IOC), volatile organic compounds, and synthetic organic compounds (SOC). Fact Sheet at 1. Results of the inorganic chemical analysis were below the groundwater quality standards of 35 Ill. Adm. Code 620.410 and consistent with other similar aquifers. Fact Sheet at 1-2. The Agency also examined potential sources of contamination. *Id.* at 2-4. The Agency concluded, “[b]ased upon this information, the [Agency] has determined that Morton Wells #3, #4, #5, #6, #7, #8, #9, and #10 are not susceptible to IOC or SOC contamination.” *Id.* at 4. Among the source water protection efforts, the Agency lists the 1000-foot maximum setback zone ordinance that was passed by Morton and authorized by the Agency. *Id.* at 4.

Morton states, “[b]ecause of the soil type, construction precautions and monitoring protocol, it is believed there would be no contamination. Even if there was, the Village’s eight wells can supply 8MGD [million gallons per day]. Even assuming that production was lost from [the closest two] Wells 7 and 10, that would only be a loss of 2MGD and it would leave ... capacity of 6MGD. The average daily use for the Village of Morton is 2.4 MGD.” June 18 Resp. at 2.

Morton added that there are no wells located within 400 feet of the proposed storage facility that have the characteristics described in Section 14.2(d) of the Act, which provides, in part, that “no new potential route or potential primary source or potential secondary source may be placed within 400 feet of

any existing or permitted community water supply well deriving water from an unconfined shallow or fractured or highly permeable bedrock formation or from an unconsolidated and unconfined sand and gravel formation.” 415 ILCB 5/14.2(d).

Proof of Notice to Affected Potable Well Supply Owners

Morton states, “[t]he only affected potable water well supply owner within 1000 feet of the proposed de-icing agent storage facility is the Village of Morton.” Pet at 6. Morton submitted an affidavit signed by Mr. Wraight confirming this position. June 18 Resp., Tr. at 10, Hearing Exh. 5. Morton also filed an affidavit signed by Mr. Wraight to note that the Village of Morton Public Water Department was notified about the water well setback petition. June 18 Resp., Tr. at 7-8, Hearing Exh. 2.

AGENCY RESPONSE

Initial Response

The Agency responded to Morton’s original petition on May 17, 2010. The Agency’s response states that Morton’s proposed facility falls within the definition of a “new potential secondary source” to groundwater, pursuant to Section 3.355 of the Act. Resp. at 3, citing 415 ILCS 5-3.355(2008).

Although Morton’s original petition requested setback exceptions for 3 wells (#7, #9 and #10), the Agency notes that the proposed facility location is not within the 200-foot setback zone of Well #9. As such, the Agency states that a setback exception for Well #9 is not required. Resp.. at 2. The Agency also points out that Morton did not provide an affidavit stating that the Village of Morton Public Water Supply had been notified of the petition. *Id.* at 2.

In response to Morton’s economic analysis of purchasing de-icing agents and hardship of finding suitable land, the Agency “believes that the Village has met its burden of demonstrating that compliance with the setback requirements would pose an arbitrary and unreasonable hardship pursuant to 35 Ill. Adm. Code 106.310(a).” Resp. at 7.

As to the use of the best available technology controls economically achievable, the Agency notes Morton’s proposed containment structures, stormwater management, and facility inspection and repair procedures. Based on Morton’s proposal, the Agency states, “the Petitioner has adequately demonstrated that the best available technology controls economically achievable, to minimize the likelihood of contamination, will be used.” *Id.*

In response to Morton’s groundwater monitoring plan, the Agency assures that the monitoring wells would serve to alert both Morton and the Agency before any unknown release of de-icing agent reached the community water supply wells. *Id.* at 6, 8. In addition, the Agency states that the monitoring system would provide protection to the area groundwater resources in general. *Id.* at 8.

As to the maximum feasible alternative setback, the Agency states, “Given the considerations of well locations, property lines and the need for safe loading and unloading operations, it is the [Agency]’s opinion that the maximum feasible setback zone is being used.” *Id.* at 7.

Relating to Morton’s demonstration that the location of the potential source will not constitute a significant hazard, the Agency confirms Morton’s statement that the Agency’s Source Water Assessment for Morton’s wells determined that the wells are not susceptible to inorganic or organic compound contamination. *Id.* at 6. The Agency adds that it is not aware of any information that would change the assessment. *Id.* at 8. Based on the wells logs provided by Morton, the Agency notes that the geologic material separating the land surface and the water supply aquifer is composed predominantly of clay, although some sand and gravel layers are noted within the upper 200 feet. *Id.* The Agency indicates the low permeability of clay keeps potential contaminants from moving far or rapidly. *Id.*

The Agency states that after reviewing Morton’s petition, it has determined that Morton “has demonstrated that the location of the Facility within the setback zone does not pose a significant hazard.” *Id.* at 6. The Agency recommends that the Board grant the setback exception provided Morton submits some specific additional information:

- a) Provide a monitoring program and schedule to monitor the contaminants of concern, TDS, chlorides, pH, and groundwater elevations; and
- b) Provide an affidavit stating that the Petitioner has notified the Village of Morton Public Water Supply of the proposed new potential secondary source. *Id.* at 8-9.

Supplemental Response

The Agency states in its supplemental response that the salt pile proposed in Morton’s petition is a “new potential secondary source” to groundwater, pursuant to Section 3.355 of the Act. Agency Supp. Resp. at 1, citing 415 ILCS 5/3.355 (2008). The Agency further states Section 14.3 of the Act does not prohibit potential secondary sources within the maximum setback zone of public water supply wells. Agency Supp. Resp. at 2, citing 415 ILCS 5/14.3 (2008). The Agency therefore recommends that a water well setback exception not be required for Wells #5, #6 and #8, but recommends that an exception be granted for Wells #7, #9 and #10. Agency Supp. Resp. at 2.¹

BOARD DISCUSSION

¹ The Board notes that in its initial response, the Agency recommended that an exception only be granted for Wells # 7 and #10, as the proposed facility would not be located within the 200 foot setback zone of Well #9. *See* Resp. at 2. The Board therefore takes Well #9’s inclusion here as mere scrivener’s error.

As an initial matter, the Board agrees with the Agency's characterization that Morton's proposed Facility falls within the definition of a "new potential secondary source" pursuant to Section 3.355 of the Act. Section 14.2(a) of the Act prohibits any new potential secondary source from being placed within the minimum setback zone, 200 feet, of any CWS well. 415 ILCS 5/14.2(a) (2008). Further, under Section 14.3 of the Act, a well setback exception is not necessary to locate a new potential secondary source within the maximum setback zone of a CWS well. 415 ILCS 5/14.3. As such, Morton needs to obtain a well setback exception only from the minimum setback zones of the affected community water supply wells to proceed with the construction of the storage facility. Section 14.2(c) gives the Board authority to grant exceptions from the setback requirements to owners of a new potential secondary source. 415 ILCS 5/14.2(c) (2004). The Board finds that Morton has fulfilled the general requirements under Section 14.2(c) of the Act as well as 35 Ill. Adm. Code 106 Subpart C: Water Well Setback Exception Procedure. Further, as explained below, the Board finds that exceptions are only necessary from the minimum setback zones of Wells #7 and #10.

The Board sets forth below its discussion and findings that Morton has met its burden of proving, under Section 14.2(c) of the Act, that: (1) compliance with the setback requirements of Section 14.2 would pose an arbitrary and unreasonable hardship upon the petitioner; (2) the petitioner will utilize the best available technology controls economically achievable to minimize the likelihood of contamination of the potable water supply well; (3) the maximum feasible alternative setback will be utilized; and (4) the location of such potential source or potential route will not constitute a significant hazard to the potable water supply well.

Arbitrary and Unreasonable Hardship

Morton explains its current supply of rock salt is often insufficient during a single snow storm event. Under such conditions, Morton is obligated to pay a 40% premium to have additional rock salt delivered in order to complete snow removal operations. Pet at 2-3. Morton explains that the Village can save \$20,000 to \$30,000 each year if means were available to take delivery of de-icing agent during the off season. Tr. at 6-7. Morton states that the only property Morton owns that is suitable for a de-icing agent storage facility is located within the minimum setback zones of two community water supply wells, #7 and #10. Pet. at 1-2. Since public safety is the responsibility of the Village of Morton, Morton states that it cannot rely upon a third party for clearing the roads. *Id.* at 3.

Based on the record, the Board agrees with the Agency and finds that Morton would suffer arbitrary and unreasonable hardship if it were not granted an exception from the water well setback requirements.

Best Available Technology Controls Economically Achievable

De-Icing Agent Facility Requirements

Morton states that construction and operation of the de-icing storage facility will meet the requirements of 35 Ill. Adm. Code 616 Subpart L, including the closure requirements at 616.725 and groundwater monitoring requirements at 616.723. Pet. at 5, June 18 Resp. at 3.

Morton describes both the containment and monitoring systems for the proposed facility. Morton explains that the proposed storage building would be totally enclosed, constructed on an 8-inch concrete pad with 6-inch high concrete curb to prevent de-icing agent from migrating into soils, surface water, or groundwater. Pet. at 3. The loading area would also consist of an 8-inch thick concrete pad with 6-inch high concrete curb, sloped to a dedicated catch basin to divert runoff to Morton's wastewater treatment plant. *Id.* at 4. The 5000-gallon aboveground storage tank would be double-walled and located within the curbed area, such that any leaks would drain to the dedicated catch basin and directed to the wastewater treatment plant. *Id.*

Morton also describes a regular schedule of daily inspections, annual inspections, and repairs. *Id.* In addition, Morton proposes to install three monitoring wells, which the Agency notes would serve to provide early warning to both Morton and the Agency before any unknown release of de-icing agent reached the community water supply wells. *Id.* at 5, Resp. at 6, 8.

Groundwater Monitoring

Morton proposes to install three monitoring wells at the locations indicated in Exhibit D in compliance with 35 Ill. Adm. Code 620.505 Compliance Determination. Pet. at 5, Exh. D. Morton indicates that the monitoring wells will be installed at a depth of 30 feet and will meet the requirements of 35 Ill. Adm. Code 616.204(c) for groundwater monitoring systems. June 18 Resp. at 2. The Agency agrees that the groundwater monitoring system required by 35 Ill. Adm. Code 616 and proposed in the petition will protect the community wells by providing an early warning should an unknown release occur, and afford protection to the groundwater resource of the area in general. Resp. at 8. While the Board finds that the groundwater monitoring system provides protection to groundwater, the Board notes that the proposed placement of the monitoring wells may be inconsistent with the compliance determination requirements under Section 620.505 of the Board's groundwater quality standards regulations.

Specifically, the Board notes that 620.505(a)(2) provides:

Section 620.505 Compliance Determination

(a) Compliance with standards at a site is to be determined as follows:

(2) For groundwater that underlies a potential primary or secondary source, the outermost edge as specified in Section 620.240(e)(1).

Subsection 620.240(e)(1) provides:

(e) Groundwater which underlies a potential primary or secondary source, in which contaminants may be present from a release, if the owner or operator of such source notifies the Agency in writing and the following conditions are met:

- (1) The outermost edge is the closest practicable distance from such source, but does not exceed:
 - (A) A lateral distance of 25 feet from the edge of such potential source or the property boundary, whichever is less, and
 - (B) A depth of 15 feet from the bottom of such potential source or the land surface, whichever is greater[.]

Section 620.240(e)(1) prescribes the lateral and vertical extent of the “outermost edge” that must be considered in the placement of monitoring wells for compliance determination. The Board notes that the locations of the proposed monitoring wells depicted in Exhibit D are 25 feet from the edge of the proposed concrete pad as required by 620.240(e)(1)(A). However, Morton’s proposed 30-foot depth for the monitoring wells is greater than the depth of 15 feet required under Section 620.240(e)(1)(B). Morton did not elaborate on any circumstances that would necessitate the 30-foot depth. Therefore, in accordance with 620.240(e)(1)(B), the Board will require monitoring wells to be installed at a depth that does not exceed 15 feet from the bottom of the potential secondary source or the land surface, whichever is greater.

The monitoring program submitted by Morton states that monitoring will be in accordance with 35 Ill. Adm. Code 616 Subpart B. Morton indicates sampling and analysis would be for TDS, chlorides, pH, specific conductance, total organic carbon, and total organic halogen. Pet. at 5, June 18 Resp. at 2. The Agency states that Morton needs to monitor for the contaminants of concern, including TDS, chlorides, pH, and groundwater elevations. Resp. at 8.

For annual monitoring at de-icing agent storage units, the Board notes that Section 616.207(e) requires sampling and analysis for pH, specific conductance, total organic carbon and total organic halogen, as proposed by Morton. In addition for determining background values for de-icing agent storage units, the Board notes that Section 616.207(a)(1) requires sampling and analysis for these same parameters plus any other parameter that meets the following criteria:

- A) Material containing such parameter is stored, treated or disposed of at the unit; and
- B) There is a groundwater standard for such parameter. 35 Ill. Adm. Code 616.207(a)(1).

The Agency requests that Morton also monitor for “contaminants of concern,” TDS, and chlorides. The Agency also requests that Morton monitor groundwater elevations. The Board notes that Sections 616.205(c) and (d) require a determination of the groundwater head elevation each time groundwater is sampled and an annual determination of the groundwater flow rate and direction. *See* 35 Ill. Adm. Code 616.205(c), (d).

For the conditions of the Order, the Board will add TDS, chlorides, and groundwater elevation to the monitoring program as requested by the Agency, as well as the annual requirement to determine groundwater flow rate and direction in 35 Ill. Adm. Code 616.205(d).

Maximum Feasible Alternative Setback

Morton originally requested a setback exception for Wells #7, #9, and #10 pursuant to Section 14.2 of the Act. Pet. at 4. In response to the June 1, 2010 Hearing Officer Order and the Agency's May 17, 2010 response, Morton withdrew the request for Well #9 since the potential secondary source would be located within the 200-foot setback of only Wells #7 and #10. June 18 Resp. at 1. Later in response to the Hearing Officer's questions, Morton explained that 1000-foot maximum setback zones had been established for 6 of the community water supply wells: Wells #5, #6, #7, #8, #9 and #10 and that the potential source was located within these maximum setback zones. July 28 Resp. at 1. Morton amended its petition to seek exceptions for the maximum setback zones pursuant to Section 14.3 of the Act. *Id.* at 2.

Morton states the proposed location is the only property that Morton owns that is suitable for the Facility. Pet. at 2. Morton adds, "[m]oving the location may make the de-icing agent storage facility further from one well, but it will move it closer to another well." *Id.* at 4. Morton identified the maximum feasible alternative setbacks for Wells #7 and #10 at 90 feet and 120 feet, respectively. June 18 Resp. at 1. The Agency agrees that Morton is using the maximum feasible setback location considering the location of the wells, property lines and the need for safe loading and unloading operations. Resp. at 7.

As discussed below, the Board finds that Morton only needs an exception from the minimum setback zones for Wells #7 and #10. Further, the Board agrees with Morton and the Agency that 90 feet from Well #7 and 120 feet from Well #10 are the maximum feasible alternative setbacks.

Location Not a Significant Hazard

Morton asserts that construction of a new de-icing agent storage facility will not create a potential source that is a significant hazard to the existing potable water supply wells. Pet. at 5. Morton relies on the Agency's Source Water Assessment of Morton's wells to support its assertions. *Id.* The Agency agrees with Morton that the proposed location does not pose a threat to the CWS wells. Resp. at 8.

The Board notes that Morton originally requested exceptions for the minimum setback zones for Wells #7, #9 and #10 pursuant to Section 14.2 of the Act. Later Morton explained that 1000-foot maximum setback zones had been established for 6 of the CWS wells: Wells #5, #6, #7, #8, #9, and #10 and that the potential source was located within the maximum setback zones. July 28 Resp. at 1. Based on Hearing Officer Order questions, Morton amended its petition to seek exceptions for the maximum setback zones pursuant to Section 14.3 of the Act. *Id.* at 2. Further, at the Hearing Officer's request, Morton provided information concerning establishment of the 1000-foot maximum setback zone, well logs for all six wells, and the Fact Sheet from the Agency's Source Water Assessment. July 28 Resp., Sept. 16 Resp.

As stated earlier and noted in the Agency's September 27, 2010, supplemental response, Section 14.3 of the Act only places restrictions on new potential primary sources and new potential routes, but not new potential secondary sources. *See* 415 ILCS 14.3(e), (f). Therefore, the Board finds that Morton's request for exceptions from the maximum setback zones of the CWS Wells #5, #6, #8, and #9 is unnecessary. There is no statutory provision restricting new potential secondary sources within the maximum setback zone. However, the Board will consider the additional information submitted by Morton in making its determination that the proposed location of the potential source does not pose a hazard to existing potable water supply wells or groundwater, particularly since Morton relies on the Agency's Source Water Assessment of Morton's Wells.

The Board notes that consideration of potential secondary sources is a necessary part of the Agency's evaluation in determining susceptibility to contamination. The Agency's evaluation of "susceptibility to contamination" identifies Morton's current remote de-icing agent facility as a "potential source[] of groundwater contamination" for Well #3 (WL50228) at a distance of 500 feet. Fact Sheet at 3-4. Since the proposed facility is within the maximum setback zones of six CWS wells, the Board gives consideration here to the evidence provided by Morton, including the Agency's Source Water Assessment. The Board notes that the information contained in the well logs of all six CWS wells and the information in the Agency's source assessment document support Morton's assertion that the proposed location of the storage facility does not pose a significant threat to the affected CWS wells. Therefore, the Board finds that the location of the "new potential secondary source" within the minimum setback zone of CWS Wells #7 and #10 is not a significant threat to Morton's public water supply wells.

CONCLUSION

Based on a review of Morton's petition, supporting information and the Agency's recommendation, the Board finds that Morton has met its burden of proof under Section 14.2 of the Act for a water well setback exception for its CWS Wells #7 and #10. The Board finds that: (1) compliance with the setback requirements of Section 14.2 of the Act would pose an arbitrary and unreasonable hardship upon the petitioner; (2) the petitioner will utilize the best available technology controls economically achievable to minimize the likelihood of contamination of the potable water supply well; (3) the maximum feasible alternative setback will be utilized; and (4) the location of such potential source or potential route will not constitute a significant hazard to the potable water supply well. Accordingly, the Board grants Morton an exception from the minimum water well setbacks for Well #7 and Well #10 subject to the conditions stated in the order. Morton will be required to execute a certificate of acceptance of the conditions.

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

ORDER

The Board grants the Village of Morton (Morton) a water well setback exception for Community Water Supply Wells #7 and #10 from Section 14.2(a) of the Environmental Protection Act (Act) to construct a de-icing agent storage facility (Facility) at the property located

between 450 and 500 Detroit Avenue, Morton, Tazewell County, pursuant to Section 14.2(c) of the Act and subject to the following conditions:

- 1) Morton must conduct construction, operation, groundwater monitoring, and closure of the Facility in compliance with 35 Ill. Adm. Code 616 Subpart L: De-Icing Agent Storage and Handling Units.
- 2) Morton must install three groundwater monitoring wells in compliance with 35 Ill. Adm. Code 620.505, 620.240(e)(1), and 616.204. In accordance with 620.240(e)(1)(A) and (B), Morton must install monitoring wells at a lateral distance that does not exceed 25 feet from the edge of the Facility or the property boundary, whichever is less, and at a depth that does not exceed 15 feet from the bottom of the Facility or the land surface, whichever is greater.
- 3) Beginning no later than start of operations of the Facility and continuing for a period of at least one year, Morton must take and analyze samples to determine background values and maximum allowable results in accordance with 35 Ill. Adm. Code 616.207. Upon completion of the background sampling, Morton must continue monitoring groundwater annually in accordance with 35 Ill. Adm. Code 616.208 and 620.510.
- 4) Morton's groundwater monitoring program must comply with 35 Ill. Adm. Code 616 Subpart B and 620 Subpart E, and include the following parameters:
 - a) pH,
 - b) specific conductance,
 - c) total organic carbon,
 - d) total organic halogen,
 - e) Total dissolved solids (TDS) ,
 - f) Chlorides,
 - g) Groundwater elevations, and
 - h) Groundwater flow rate and direction.

IT IS SO ORDERED.

If the Village of Morton chooses to accept this exception subject to the above conditions, Morton must, within 45 days after the date of this opinion and order, file with the Board and serve on the Agency a certificate of acceptance and agreement to be bound by all the terms and conditions of the granted exception. Morton must forward the certificate to:

Joey Logan-Wilkey
Division of Legal Counsel
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

The certificate must be signed by an officer of Morton authorized to bind Morton to all of the terms and conditions of the final Board order in this matter. The form of the certificate follows:

CERTIFICATE OF ACCEPTANCE

I (We), _____, having read the opinion and order of the Illinois Pollution Control Board in docket PCB 10-83, dated October 7, 2010, understand and accept the opinion and order, realizing that this acceptance renders all terms and conditions of the water well setback exception set forth in that order binding and enforceable.

Petitioner: VILLAGE OF MORTON

By: _____
Authorized Agent

Title: _____

Date: _____

Section 41(a) of the Environmental Protection Act provides that final Board orders may be appealed directly to the Illinois Appellate Court within 35 days after the Board serves the order. 415 ILCS 5/41(a) (2008); *see also* 35 Ill. Adm. Code 101.300(d)(2), 101.906, 102.706. Illinois Supreme Court Rule 335 establishes filing requirements that apply when the Illinois Appellate Court, by statute, directly reviews administrative orders. 172 Ill. 2d R. 335. The Board's procedural rules provide that motions for the Board to reconsider or modify its final orders may be filed with the Board within 35 days after the order is received. 35 Ill. Adm. Code 101.520; *see also* 35 Ill. Adm. Code 101.902, 102.700, 102.702.

I, John T. Therriault, Assistant Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on October 7, 2010, by a vote of 5-0.



John T. Therriault, Assistant Clerk
Illinois Pollution Control Board